**1**

**Acute intermittent hypoxia augments the cardiovascular response to an orthostatic challenge preceded by locomotor exercise.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***David McMillan, MS***  
University of Miami

**CV:**  
BIOGRAPHICAL SKETCH   
  
NAME: McMillan, David William, MS   
  
POSITION TITLE: Doctoral Candidate, Graduate Student Research Assistant   
  
A. Personal Statement   
My global research interests pertain to the role of the central nervous system in controlling whole-body energy expenditure and macronutrient processing. I was first introduced to techniques used to study energy expenditure, fuel homeostasis, and central hemodynamic function in the laboratory of Dr. Todd Astorino where we studied high intensity exercise. In his laboratory I inspired and lead a project that showed that self-pacing during maximal-effort cycling can augment the central hemodynamic response to exercise independent of external power production and the duration of exercise, illustrating the importance of perception in the brain’s control of the physiological processes required to meet the demands of exercise. Following my undergraduate I began my formal spinal cord injury (SCI) training in the laboratory of Dr. Christine Dy where, due to her research interests, we conducted a project in the area of systems neural circuitry during locomotion. I am now examining various cardiometabolic responses to different forms of exercise in persons with spinal cord injury. Specifically, I have recently completed a study focusing on changes in fuel homeostasis during recovery from a single bout of a guideline established (American Physical Therapy Association) circuit resistance exercise. Data from this project has been presented by myself and others at multiple conferences. I am now working on a project examining a prototype device that use non-linear dynamic control theory to control transcutaneous neuromuscular electrical stimulation (tNMES) to achieve recumbent leg cycling. I strive to continue research in the area of cardiometabolic function in persons with SCI because 1) the results have the potential to benefit persons with SCI, 2) SCI is a viable model for studying the central control of energy expenditure in living humans, and 3) the field exists on the apex of biotechnology where study and treatment involves bioengineering and/or regenerative medicine.   
  
B. Positions and Honors   
  
Academic and Professional Honors   
CSU San Marcos “Dean’s Award”, 2013   
CSU Pre-Doctoral “Sally Casanova Scholar” ($10,000/yr for 1 yr), 2014   
CSU Lost Angeles “Special Recognition in Graduate Studies”, 2015   
University Miami Barbara Marks Scholarship ($4,000/yr for 2 yr), 2015 - 2017   
  
C. Contribution to Science   
1. Undergraduate Research: I spent three years work and conducting research at the Project Walk, Inc and at CSU San Marcos in the biomechanics and exercise physiology laboratories of Dr. Jeff Nessler and Todd Astorino, respectively. The topics of the studies included acute plasma neurotrophin responses to multi-modal, activity-based therapy in persons with spinal cord injury, recovery of perturbations to synchronization of gait during side my side treadmill walking, cardiometabolic adaptations to interval training in sedentary women, and the effect of perception on cardiometabolic control during maximal exercise. Through these projects I was trained in techniques involving whole-body vibration, body weight support treadmill training, transcutaneous neuromuscular electrical stimulation, optical-passive motion capture, non-linear data analysis, respiratory gas analysis, body composition assessment, and impedance cardiography. I presented the data from these projects in the form of 6 posters and 4 slide presentations at various local and regional conferences.   
  
a. Nessler JA, McMillan DW, Schoulten M, Shallow T, Stewart B, Delone C. Side by side treadmill walking with intentionally desynchronized gait. Annals of Biomedical Engineering. 41(8), 1680–91, 2013   
b. Astornio TA, Schubert MM, Palumbo E, Sterling D, McMillan DW, Cooper C, Gallant R. Comparing the magnitude and time course of changes in maximal oxygen uptake in response to distinct regimens of chronic interval training in sedentary women. Eur J Appl Physiol, 113 (9), 2361–9, 2013.   
c. Astorino TA, Schubert MM, Palumbo E, Sterling D, McMillan DW. Effects of two doses of interval training on maximal fat oxidation in sedentary women. Med Sci Sports Exerc, 45(10), 1878–86, 2013.   
d. Astornio TA, McMillan DW, Edmunds RM, Sanchez E. Increased cardiac output elicits higher VO2max in response to self-paced exercise. Appl Physiol Nutr Metab, 40(3), 223–9, 2015.   
e. Astorino TA, Schubert MM, Palumbo E, Stirling D, McMillan DW, Gallant R, Dewoskin R. Perceptual changes in response to two regimens of interval training in sedentary women. J Strength Cond Res, 30(4), 1067-76, 2015.   
  
2. Master’s Research: My master’s thesis focused on systems neural circuitry during locomotion, with an emphasis on the potential benefits of active arm movements on lower body muscle activity during locomotor rehabilitation in persons with motor complete spinal cord injury. Here I expanded on my exposure to body weight support treadmill training, and was trained in the use of electromyography to measure patters of muscle activation. The results were presented as a slide presentation at a recent national conferences, my first national oral presentation. Furthermore, the topic and data have been submitted for publication in a special-focus edition of the journal Current Pharmacological Design. The data suggest that proposed propriospinal interneurons—that couple the cervical and lumbar spinal enlargements—allow for interappendicular neurological coupling in humans so that active arm movement has the potential to increase leg muscle activity independent of changes in the mechanical environment during locomotor rehabilitation.   
  
a. McMillan DW, de Leon R, Guertin PA, Dy CJ. The Utility of Interappendicular Connections in Bipedal Locomotion. Current Pharmacological Design, 23(12), 1734-40, 2017.   
  
3. Doctoral Research: My doctoral training is focused on cardiometabolic function in persons with spinal cord injury. I’ve completed on project examining whole-body energy expenditure and fuel homeostasis during and after a single bout of circuit resistance in persons with and without spinal cord injury. Data from this project has been presented by myself and others at multiple conferences. I am now examine central hemodynamic as well as whole-body energy expenditure and fuel homeostasis during transcutaneous neuromuscular electrical stimulation used to achieve lower body cycling. Thus far our results suggest that a novel control system, based on non-linear dynamics, allows for sustained contractions possibly due to different muscle bioenergetics. My dissertation will focus on lipid metabolism during recovery from exercise in persons with spinal cord injury.   
  
a. Maher JL, McMillan DW, Nash MS. The Cardiometabolic Syndrome in SCI: the Role of Physical Deconditioning and Evidence-based Countermeasures. In AJ Taylor (Ed. 1), in The Physiology of Exercise in Spinal Cord Injury. American Physiological Society and Springerbook, 202–215, 2016.   
b. Maher JL, McMillan DW, Nash MS. Exercise and Health-Related Risks of Physical Deconditioning after Spinal Cord Injury. Top Spinal Cord Inj Rehabil. 23(3): 234-44, 2017.   
c. McMillan DW, Kressler J, Jacobs K, Nash MS. (In Preparation) Energy Expenditure and Fuel Homeostasis During and After a Single Bout of Circuit Resistance Exercise in Persons with and without Spinal Cord Injury.

***Jennifer Maher, PhD***  
University of Miami

*(no CV uploaded)*

***Mark Nash, PhD***  
University of Miami

*(no CV uploaded)*

**2**

**Talking in Private: Facebook Closed Group Promotes SCI Peer Support**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Thea Flaum, BA***  
Hill Foundation for Families Living with Disabilities

**CV:**  
Current Duties   
Thea Flaum is President of the Hill Foundation, which was established in 2007. She is the founder of FacingDisability.com, an innovative website which provides information and support for families facing spinal cord injuries. She oversees all activities of the website and the Foundation.   
  
Personal Statement   
FacingDisability.com is designed to help both the injured person and their family members cope effectively, resiliently and creatively with the changing realities of all their lives. The idea is to connect people with new injuries with those who have “been there.”   
  
A unique component of the website is that it features over 2,500 brief video excerpts from on-camera interviews with people candidly sharing their life experiences in coping with spinal cord injury. The Hill Foundation has interviewed parents, spouses, children, siblings and people with spinal cord injuries themselves about the things they’ve learned that will be helpful to others. The best information and ideas from those interviews are featured on the website, along with excerpts from interviews with top experts in the field.   
  
It is not surprising that Flaum should use video in her work for the Hill Foundation. She came to this work after a 35-year-career in television.   
  
In 1976, Flaum created a television show that redefined the way an entire generation learned about the movies. She put two Chicago film critics, Roger Ebert and Gene Siskel, in a movie theatre balcony, and a new television format was born – along with two unlikely celebrities. In addition to “Sneak Previews” with Ebert and Siskel, Thea also created PBS’ first national parenting series, “Look at Me” with Phil Donahue, and was responsible for the PBS music series, “Soundstage.”   
  
In 1984, Thea formed an independent television production company based in Chicago. The company focused on family programming. It developed and produced dramas, documentaries, specials, series and pilots for network, cable, syndication and public television. Her productions include: “Love Hurts,” for ABC, “Christmas Every Day” for CBS, “Where’s Daddy?” for NBC, five Les Brown specials for PBS, “At the Auction with Leslie Hindman” for HGTV and “Declassified” for Tribune Broadcasting. She has produced more than 1,000 television programs, including series and specials.   
  
Flaum’s work in television has earned her nine Emmy Awards, 10 international film awards, the American Bar Association’s "Silver Gavel" award, the "Best in Media" award from the National Council for Children’s Rights, a Cine "Golden Eagle," and a "Golden Apple." In 1993, she was named Chicago’s "Best Producer" by “Screen” magazine. In 1996, she received the Governor’s Award from the Chicago Academy of Television Arts and Sciences. In 2001, she received their Silver Circle Award for "significant contributions to broadcasting." In 2005, she was honored with the Alumni Achievement Award from Skidmore College, her alma mater. In 2006, she received the Focus Achievement Award from Women in Film, Chicago.   
  
She is a member of the boards of: Chicago's Shirley Ryan AbilityLab (formerly the Rehabilitation Institute of Chicago), Access Living of Metropolitan Chicago, the Chicago Academy of Television Arts and Sciences, the Ruth Page Foundation, the Fund for Innovative TV, the Board of Governors of the Chicago Symphony and a founding advisory board member of the Roger Ebert Center in the College of Media at the University of Illinois Urbana-Champaign. She is a member of the National Advisory Board of the Model Systems Knowledge Translation Center, which develops strategies for communicating the latest research about spinal cord injuries, traumatic brain injuries and burns, and the Advisory Board of the Midwest Regional Spinal Care Injury Care System (Shirley Ryan AbiltyLab) with which she is currently developing a series of spinal cord injury videos for the in-hospital TV systems of all Model Systems hospitals.   
  
Positions/Honors   
06/07-present President, Hill Foundation for Families Living With Disabilities, Chicago   
  
6/84-5/07 President, Thea Flaum Productions, Chicago   
  
6/76-5/84 Executive Producer, National Programming, WTTW/TV, Chicago   
  
  
Date (s) Peer-Reviewed Presentations   
09/17 "Breaking Bad News--What You Say vs. What They Hear" ASCIP panel-plus-video presentation with Jonathon Rose, PhD, Director Outpatient Psychology, Spinal Cord Injury Clinic, VA Palo Alto, CA; Tricia Hicks, MSW, MEd, Case Manager, Magee Rehab, Philadelphia, PA; Katie Powell, OT, Zablocki VA Medical Center, Milwaukee, WI; Laura Wehrli, PT, DPT, APT, Physical Therapy Supervisor, Spinal Cord Injury Unit, Craig Hospital, CO.   
  
Flaum, T. "Prognosis Disclosure in Spinal Cord Injury"--"Breaking Bad News: It's Not What You Say, It's What They Hear." J of PM&R Jan.2017; 80-82.   
  
09/16 “200 Years on the Healthcare Team—ASCIP Voices of Experience” ASCIP Panel-plus-video presentation, with Jonathon Rose ,Ph,D, Director Outpatient Psychology, Spinal Cord Injury Clinic VA Palo Alto, CA; Tricia Hicks, MSW, MEd, Case Manager, Magee Rehab, Philadelphia,PA; Katie Powell, OT , Zablocki VA Medical Center, Milwaukee, WI; Laura Wehrli, PT,DPT, APT, Physical Therapy Supervisor, Spinal Cord Injury Unit, Craig Hospital, CO.   
  
04/16 “FacingDisability.com Provides Online SCI Peer Counseling” ASIA Poster   
  
10/15 “A Spinal Cord Injury Affect the Entire Family” ACRM Podium Presentation, with Sara Klaas, Shriners Hospital for Chidren Chicago, IL   
  
05/15 “Sexuality and Spinal Cord Injury: The Need for Information and Support after SCI” ASIA/ISCosS Poster, with Sara Klaas, Shriners Hospital for Children, Chicago   
  
09/14 “Sex After Spinal Cord Injury: Still a Hush-Hush Subject” ASCIP Podium Presentation, with Sara Klaas, Director of SCI Services, Shriners Hospital for Children, Chicago   
  
5/14 “FacingDisability.com: The Changing Face of Spinal Cord Injury and Support in an Online World” ASIA Poster, with Sara Klaas, Director of SCI Services, Shriners Hospital for Children, Chicago   
  
12/13 “FacingDisability.com: The Changing Face of Spinal Cord Injury and Support” ASCIP Webinar, with Sara Klaas, Director of SCI Services, Shriners Hospital for Children, Chicago   
  
09/13 “FacingDisability.com: The Changing Face of Spinal Cord Injury and Support” ASCIP Podium Presentation, with Sara Klaas, Director of SCI Services, Shriners Hospital for Children, Chicago   
  
05/13 “FacingDisability.com: An Internet-Based Approach to Spinal Cord Injury Education and Support” ASIA Poster, with Sara Klaas, Director of SCI Services, Shriners Hospital for Children, Chicago   
  
Research Support   
  
6/07-present All research has been funded by the Hill Foundation

***Stephanie Lollino, B.A***  
Hill Foundation for Families Living with Disabilitiess

*(no CV uploaded)*

**3**

**An acute bout of body-weight support treadmill training improves blood glucose control in obese men with incomplete spinal cord injuries: A case series**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Jennifer Maher, PhD***  
The Miami Project to Cure Paralysis

**CV:**  
Curriculum Vitae   
Jennifer L. Maher, Ph.D.   
  
Present Position:   
Postdoctoral Associate, University of Miami Miller School of Medicine   
  
Academic/Research Positions:   
2014 –Present Postdoctoral Associate, The Miami Project to Cure Paralysis, Miami, FL   
2013-2014 & 2017 Adjunct Faculty, Florida International University, Miami, FL   
2012 Research Intern, United States Army Research Institute for Environmental Medicine, Natick, MA   
2011-2013 Exercise Physiology Lab Manager, University of Miami, Miami, FL   
2009-2013 Graduate Research Assistant, University of Miami, Miami, FL   
2003-2004 Graduate teaching Assistant, University of West Florida, Pensacola, FL   
  
Honors and Awards:   
2013 Thomas E. Miller Award for Outstanding Doctoral Student in Exercise Physiology   
2013 School of Education and Human Development Travel Support Award   
2011 & 2012 Barbara Marks/Katy Dean Travel Award   
2009 -2013 University of Miami Graduate Assistantship   
2003-2004 University of West Florida Graduate Assistantship   
  
Service:   
2017 Research and Awards Committee – American Spinal Injury Association Annual Scientific Meeting , Albuquerque, NM   
  
2017 Subject-matter expert on accreditation committee for National Council on Strength and Fitness (NCSF) Certified Strength Coach credential   
  
2016 & 2017 National Institute of Health Summer Student Journal Club Facilitator   
  
  
Manuscript/Grant Reviewer:   
Applied Physiology, Nutrition and Metabolism   
Medicine and Science in Sports and Exercise   
Spinal Cord   
The Journal of Spinal Cord Medicine   
The Missouri Spinal Cord Injuries Research Program   
  
Scientific Organizations/Societies:   
American College of Sports Medicine   
  
Research Support:   
2012 Diabetes Research Institute Research Support: The effect of a 10-s maximal effort sprint performed prior to and immediately before moderate intensity exercise on glucoregulation of individuals with type 1 diabetes.   
  
2012 School of Education and Human Development Research Support Award: The effect of a 10-s maximal effort sprint performed prior to and immediately before moderate intensity exercise on glucoregulation of individuals with type 1 diabetes.   
  
2013 Barbara Marks/Katy Dean Research Award: The effect of a 10-s maximal effort sprint performed prior to and immediately before moderate intensity exercise on glucoregulation of individuals with type 1 diabetes.   
  
Teaching:   
  
2014-Present Pharmacology (PTS 650), Department of Physical Therapy, University of Miami, Miami, FL: Teaching Assistant   
  
2017 Kinesiology (PET 3310), Department of Physical Education, Florida International University, Miami, FL   
  
2013-2014 Health/Fitness Instructor (PEP 4111), Department of Physical Education, Florida International University, Miami, FL   
  
2013 Introduction to Systemic Physiology (KIN 321), Department of Kinesiology and Sport Sciences, University of Miami, Miami, FL   
  
2011 National Council on Strength and Fitness (NCSF) Personal Training Certification Workshop, National Council on Strength and Fitness, Miami FL   
  
2010-2013 Exercise Physiology Cardiorespiratory Laboratory (KIN 322), Department of Kinesiology and Sport Sciences, University of Miami, Miami, FL   
  
2010-2013 Exercise Physiology Neuromuscular Laboratory (KIN 222), Department of Kinesiology and Sport Sciences, University of Miami, Miami, FL   
  
Bibliography:   
Peer-reviewed Papers   
Maher JM, McMillan DW, Nash MS. Voluntary exercise after SCI: Impact on Secondary Complications, Fitness and Function. Topics in Spinal Cord Injury Rehabilitation, 23(3): 175-87, 2017.   
Palermo AE, Maher JM, Baunsgaard CB, Nash MS. Screening and use of bionic exoskeletons in SCI. Accepted, Topics in Spinal Cord Injury Rehabilitation, 23(3): 207-17, 2017.   
Maher JM, Cowan RE. Impact of stage duration on incremental exercise test performance in individuals with SCI. Archives of Physical Medicine and Rehabilitation, 97(11): 1895-1900, 2016.   
Hittinger, EA, Maher JM, Nash MS, Perry AC, Signorile JF, Kressler J, Jacobs KA. Ischemic preconditioning of the legs results in small improvements in peak exercise capacity at sea level, but not simulated high altitude in trained male cyclists. Applied Physiology Nutrition and Metabolism, 40(1):65-71, 2015.   
Book Chapters   
Maher JM, McMillan DW, Nash MS. Cardiometabolic Syndrome in SCI: The role of physical deconditioning and evidence-based countermeasures, In: The Physiology of Exercise in Spinal Cord Injury, Physiology in Health and Disease. DOI 10.1007/978-1-4939-6664-6\_1, 2017.   
In review/preparation   
Maher JM, Baunsgaard CB, van Gerven JJ, Palermo A, Nash MS. Effects of Acute Bionic Ambulation on Metabolism and Substrate Utilization in Persons with Spinal Cord Injuries (SCI). In preparation.   
Maher JM, Cowan RE. Novel training program improves aerobic fitness in individuals with SCI: Case report. In preparation.   
Maher JM, Meneghini LF, Myers ND, Perry AC, Coblentz P, White J, Meyers AC, Jacobs KA. Maximal Sprints Prevent Hypoglycemia during Exercise, but not Recovery in Individuals with Type 1 Diabetes. In preparation.   
  
International Meeting Presentations   
Baunsgaard CB, Maher JM, van Gerven JJ, Palermo A, Irwin R, Nash MS. (2016). Effects of Bionic Ambulation on Heart Rate Variability during Head Up Tilt in Persons with Spinal Cord Injury. (International Spinal Cord Society Annual Scientific Meeting)   
Maher JL, Cowan RE. (2015) The Relationship between Aerobic Fitness and Spinal Cord Injury Functional Index Domains Varies by Fitness Level. (International Spinal Cord Society and American Spinal Injury Association Joint Scientific Meeting)   
  
National Meeting Presentations   
Maher JM, Baunsgaard CB, van Gerven JJ, Palermo A, Irwin R, Nash MS, (2017) Acute Effects of Bionic Ambulation on Metabolism and Substrate Utilization in Persons with Spinal Cord Injuries (SCI). (American Spinal Injury Association Annual Scientific Meeting)   
Baunsgaard CB, Maher JM, van Gerven JJ, Palermo A, Irwin R, Nash MS, (2016) Energy Expenditure and Cardiovascular Drift Effect during an Extended Session of Bionic Walking. (American Spinal Injury Association Annual Scientific Meeting)   
Maher JM, Nash MS. (2016) Cardiorespiratory Reponses to Intermittent Hypoxia Exposure in an Individual with Incomplete Spinal Cord Injury: A Case Study. (American Spinal Injury Association Annual Scientific Meeting)   
Raeburn (Maher) JM, Jacobs KA, Meneghini LF, Meyers ND, Perry AC, Coblentz P, White J, Myers AC. Maximal Sprints Prevent Hypoglycemia During Exercise and not Recovery in Individuals with Type 1 Diabetes. Medicine and Science in Sports and Exercise (Supplement), 46, 2014.   
Jacobs KA, Raeburn (Maher) JM, Meneghini LF, Meyers ND, Perry AC, Coblentz P, White J, Myers AC. Maximal Sprint Does Not Alter Exercise Hemodynamics or Fuel Use in Individuals with Type 1 Diabetes. Medicine and Science in Sports and Exercise (Supplement), 46, 2014.   
Raeburn (Maher) JM, Hittinger EA, Jacobs KA. Variability of Stroke Volume and Cardiac Output Measurements of a Thoracic Electrical Bioimpedance Device Across Test Monitoring Settings. Medicine and Science in Sports and Exercise (Supplement), 43: S5. 2013.   
Staab JE, Beidleman BA, Fulco CS, Grunbeck M, Guerierre K, Raeburn (Maher) J, Muza SR. Two Days of Staging at Moderate Altitude Induces 65-75% of the Ventilatory Acclimatization Achieved with two Days of Continuous Residence at 4300m. FASEB J. (Meeting Abstract Supplement), 27: 715.6. 2013.   
Raeburn (Maher) JM, Edwards D, Edwards E, Roos BA, Signorile JF. Aquatic Exercise Programs Improve Upper and Lower Body Strength and Power in the Elderly. Medicine and Science in Sports and Exercise (Supplement), 43: S351. 2011.   
Edwards D, Edwards ES, Raeburn (Maher) JM, Roos BA, Signorile JF. The Effects of Two Aquatic Exercise Programs on Activities of Daily Living in Older Persons. Medicine and Science in Sports and Exercise (Supplement), 43: S351. 2011.   
Local Meeting Presentations   
Maher JM, Palermo A, Nash MS. (2016) Acute Effects of Bionic Ambulation on Metabolism and Substrate Utilization in Persons with Spinal Cord Injury. (University of Miami Neural Engineering Research Symposium)   
Maher JM, Nash MS. (2015) Cardiorespiratory Reponses to Intermittent Hypoxia Exposure in an Individual with Incomplete Spinal Cord Injury: A Case Study. (University of Miami Miller School of Medicine 7th Annual Postdoctoral Research Day)   
Oral Presentations   
2017   
My experiences as an ultrarunner and a little bit of physiology behind it. (Invited Speaker, South Florida Triathlon Group Meeting)   
  
2016   
Cardiometabolic Responses to Ambulation in Individuals with SCI. (Miami Project Wednesday Seminar Series)   
  
2016 Clinical Applications for Robotic Exoskeletons in SCI: Current Status and Potential Enhancements.   
(University of Miami Neural Engineering Research Symposium)   
  
2016 Effects of Acute Bionic Ambulation on Metabolism, Dysglycemia, and Cardiovascular-Autonomic Functions in Persons with Spinal Cord Injuries (SCI). (University of Miami Miller School of Medicine Neurosurgery Grand Rounds)   
  
2015 Exercise for Health in Persons with SCI. (Spinal Cord Injury Support Group (SCISG), Miami Chapter, Jackson Hospital)   
  
2012 Field Validation of Acute Mountain Sickness (AMS) Predictive Models and Development of Altitude Acclimatization Models. (University of Miami Department of Kinesiology and Sport Science Research Symposium)

***Mark Nash, PhD***  
The Miami Project to Cure Paralysis

*(no CV uploaded)*

***Armando Mendez, PhD***  
The Diabetes Research Institute

*(no CV uploaded)*

**4**

**Spinal cord atrophy after spinal cord injury, a meta-analysis and replication.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Clas Linnman, PhD***  
Boston Children's Hospital and Spaulding Rehab Hospital

**CV:**  
Publications in last 5 years:   
  
Linnman C, Zeidan MA, Furtak SC, Pitman RK, Quirk GJ, Milad MR: Resting Amygdala and Medial Prefrontal Metabolism Predicts Functional Activation of the Fear Extinction Circuit. Am J Psychiatry 2012 Apr 169;4,415-23   
  
Linnman, C., Beucke, J., Jensen, K., Gollub, R., Kong, J. Sex similarities and differences in pain related periaqueductal gray connectivity PAIN 2012 Feb 153;2,444-54   
  
Linnman, C., Moulton, E.A., Barmettler, G., Becerra, L., Borsook, D. Neuroimaging of the Periaqueductal Gray: State of the Field NeuroImage 2012 Mar 60;1 505-22   
  
Linnman, C., Zeidan, M.A., Pitman, R.K., Milad, M.R. Resting cerebral metabolism correlates with skin conductance and functional brain activation during fear conditioning Biological Psychology, 2012 Feb 89;2 450-9   
  
Engman, J., Åhs, F., Furmark, T., Linnman, C., Pissiota, A., Appel, L., Frans, Ö., Långström, B., Fredrikson, M. Age, sex and NK1 receptors in the human brain — A positron emission tomography study with [ 11C]GR205171. European Neuropsychopharmacology 2012 Aug 22;8 562-8   
  
Toledo E., Lebel A., Becerra L., Minster A., Linnman C., Dodick D.W., Borsook D. The Young Brain and Concussion: Imaging as a Biomarker for Diagnosis and Prognosis Neuroscience and Biobehavioral Reviews 2012 Jul 36;6 1510-31   
  
Vanda Faria , Lieuwe Appel, Fredrik Åhs, Clas Linnman, Anna Pissiota, Örjan Frans, Massimo Bani, Paolo Bettica, Emilio Merlo Pich, Eva Jacobsson, Kurt Wahlstedt, Mats Fredrikson, Tomas Furmark. Amygdala Subregions tied to SSRI and Placebo Response in Patients with Social Anxiety Disorder Neuropsychopharmacology 2012 Sep 37:10 2222-32   
  
K. Lebron-Milad, B. Abbs, M. R. Milad, C. Linnman, A. Rougemount- Bücking, M.A. Zeidan, D.J. Holt, J.M. Goldstein Sex differences in the neurobiology of conditioned fear acquisition and its extinction Biology of Mood & Anxiety Disorders 2012 Jun 2;1 7   
  
Nasim Maleki, Clas Linnman, Jennifer Brawn, Rami Burstein, Lino Becerra, David Borsook Her vs. His Migraine: Multiple Sex Differences in Brain Function and Structure Brain 2012 Aug 135;Pt 8 2564-59   
  
Simons L., Moulton, E. A., Linnman C., Carpino E., Becerra L., Borsook D. The Human Amygdala and Pain: Evidence from Neuroimaging Hum Brain Mapp. 2014 Feb;35(2):527-38   
  
Beucke J., Kaufmann C., Linnman C., Grützmann R., Endrass T., Deckersbach T., Dougherty D., Kathmann N. Altered cingulostriatal coupling in obsessive-compulsive disorder. Brain Connect. 2012 Jul 23.   
  
Linnman C., Maleki N., Becerra L., Borsook D. Migraine Tweets - what can online behavior tell us about disease? Letter, Cephalalgia. 2013 Jan;33(1):68-9   
  
Linnman C., Coombs G., Goff D.C., Holt D.J. Lack of insula reactivity to aversive stimuli in schizophrenia. Schizophrenia Research 2013 Jan;143(1):150-7   
  
Linnman C., Becerra, L., Lebel, A. A., Berde, C., Grant, E., Borsook, D. Transient and persistent pain induced connectivity alterations in pediatric complex regional pain syndrome. PLoS One 2013 Mar 26;8(3):e57205.   
  
Linnman C., Becerra L., Borsook D. Inflaming the Brain: CRPS a model disease to understand Neuroimmune interactions in Chronic Pain. Journal of Neuroimmune Pharmacology 2013 Jun;8(3):547-63.   
  
Beucke J., Sepulcre J., Talukdar T., Linnman C, Zschenderlein K., Endrass T., Kaufmann C., Kathmann N. Increased degree connectivity of the orbitofrontal cortex in obsessive-compulsive disorder. JAMA Psychiatry. 2013 Jun;70(6):619-29   
  
Linnman C. New Pieces for the Substance P Puzzle. Commentary, Pain. 2013 Jul;154(7):966-7)   
  
Linnman C., Borsook D. Completing the Pain Circuit: Recent advances in Imaging Pain and Inflammation beyond the Central Nervous System. Rambam Maimonides Med J. 2013 Oct 29;4(4):e0026)   
  
Faria V., Åhs F., Appel L., Linnman C., Bani M., Bettica P., Merlo Pich E., Fredrikson M., Furmark T. Amygdala-frontal couplings characterizing SSRI and placebo response in social anxiety disorder The International Journal of Neuropsychopharmacology 2014 Aug;17(8):1353   
  
Bergman O., Åhs F., Furmark T., Appel L., Linnman C., Faria V., Bani M., Merlo Pich E., Bettica P., Henningsson S., Manuck S.B., Ferrell R.E., Nikolova Y.S., Hariri A.R., Fredrikson M, Westberg L., Eriksson E. Association between amygdala reactivity and a dopamine transporter gene polymorphism. Translational Psychiatry 2014 Aug 5;4:e420   
  
Simons L., Pielech M., Erpelding N., Linnman C., Moulton E., Sava S., Lebel A., Serrano P., Sethna N., Berde C., Becerra L, Borsook D. The Responsive Amygdala: Treatment-induced Alterations in Functional Connectivity in Pediatric Complex Regional Pain Syndrome. Pain. 2014 Sep;155(9):1727-42.   
  
Faria, V., Linnman C., Lebel A., Borsook D. Harnessing the Placebo effect in Pediatric Migraine. J Pediatr. 2014 Oct;165(4):659-65   
  
Rojas-Mirquez JC, Rodriguez-Zuñiga MJ, Bonilla-Escobar FJ, Garcia-Perdomo HA, Petkov M, Becerra L, Borsook D, Linnman C. Nocebo effect in randomized clinical trials of antidepressants in children and adolescents: systematic review and meta-analysis. Front Behav Neurosci. 2014 Nov 3;8:375.   
  
Frick A., Ahs F., Engman J., Jonasson M., Alaie I., Björkstrand J., Frans Ö., Faria V., Linnman C., Appel L., Wahlstedt K., Lubberink M., Fredrikson M., Furmark T. Serotonin Synthesis and Reuptake in Social Anxiety Disorder. JAMA Psychiatry Published online June 17, 2015. doi:10.1001/jamapsychiatry.2015.0125   
  
Frick A., Åhs F., Linnman C., Jonasson M., Appel L., Lubberink M., Långström B., Fredrikson M., and Furmark T. Increased neurokinin-1 receptor availability in the amygdala in social anxiety disorder: a positron emission tomography study with [11C]GR205171 Translational Psychiatry 2015 Jul 7;5:e597   
  
Borsook D., Veggeberg R., Erpelding N., Borra R., Linnman C., Burstein R., and Becerra L. The Insula: A "Hub of Activity" in Migraine. The Neuroscientist 2015 Aug 19.   
  
Engman J., Linnman C., Van Dijk K.R., and Milad M.R. Amygdala subnuclei resting-state functional connectivity sex and estrogen differences. Psychoneuroendocrinology. 2015 Sep 12;63:34-42.   
  
Marin MF. Song H, VanElzakker MB, Staples-Bradley LK, Linnman C, Pace-Schott EF, Lasko NB, Shin LM and Milad MR. Association of Resting Metabolism in the Fear Neural Network With Extinction Recall Activations and Clinical Measures in Trauma-Exposed Individuals. American Journal of Psychiatry 2016 Feb 26   
  
Borsook D., Linnman C., Faria V., Strassman AM., Becerra L., and Elman I. Reward deficiency and anti-reward in pain chronification. Neurosci Biobehav Rev. 2016 May 28. pii: S0149-7634(15)30296-7   
  
Linnman C., Catana C., Svärdsudd K., Appel L., Engler H., Långström B., Sörensen J., Furmark T., Fredrikson M., Borsook D. and Peterson M. Decreased Brain Neurokinin-1 Receptor Availability in Chronic Tennis Elbow. PLoS One. 2016 Sep 22;11(9)   
  
Barberio J., Petkov M.P., Linnman C. Using Wikipedia to study global suicide patterns. JASNH, (in press).

***Linda Dahlberg, PhD***  
Boston Children's Hospital

*(no CV uploaded)*

***Leslie Morse, DO***  
Craig Hospital

*(no CV uploaded)*

**5**

**Regenerating axons and blood vessels in tissue engineered scaffolds have defined spatial relationships after complete spinal cord injury in rats.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Nicolas Madigan, MB BCh BAO, PhD***  
Mayo Clinic

**CV:**  
Positions and Employment:   
2002 - 2005 Graduate Student Research Assistant, Department of Medicine, National University of Ireland Galway   
2004 - 2007 Internal Medicine Resident, University College Hospital, Galway, Ireland   
2007 Clinical Registrar, Department of Neurology, University College Hospital, Galway, Ireland   
2004 - 2010 Clinical Tutor, University College Hospital, Galway, Ireland, Departments of Medicine and Neurology   
2007 - 2010 Clinical Lecturer/Neuroanatomy Demonstrator, National University of Ireland, Galway   
2007 - 2010 Post-Doctoral Researcher, Regenerative Medicine Institute (REMEDI), National University of Ireland, Galway   
2007 - 2012 PhD, National University of Ireland, Galway   
2008 - 2010 Research Fellow, Neurobiology Laboratory, Department of Neurology, Mayo Clinic   
2010 - 2014 Neurology Resident, Mayo Clinic Graduate School of Medicine   
2014 - 2017 Research Fellow, Department of Neurology, Clinical Investigator Program, Mayo Clinic   
2014 -2016 Research Fellow, National Institute of Health T32 program, administered through Rutgers University, NJ Center for Biomaterials   
2017 - present. Neurology Fellow, Neuromuscular Medicine   
  
Professional Memberships:   
American Academy of Neurology   
Society for Neuroscience   
American College of Physicians   
Irish Medical Organization   
  
Honors and Board Certifications:   
2014 American Board of Psychiatry & Neurology Certification   
2014 Neurology Resident Basic Science Research Award   
2008 Travelling Studentship, National Award for Research Sciences, National University of Ireland   
2007 Royal College of Physicians of Ireland, General Professional Medical Training (GPT) Certification   
2004 International Medical Student Internship, Department of Neurology, Mayo Clinic   
2003 Summer Scholarship Grant, Finalist for National Watts Medal Competition, Health Research Board, Ireland   
  
Peer-reviewed Articles   
1. Donnelly EM, Madigan NN, Rooney GE, Knight A, Chen B, Ball B, Kinnavane L, Garcia Y, Dockery P, Fraher J, Strappe PM, Windebank AJ, O'Brien T, McMahon SS. Lentiviral vector delivery of short hairpin RNA to NG2 and neurotrophin-3 promotes locomotor recovery in injured rat spinal cord. Cytotherapy. 2012 Nov; 14(10):1235-44. PMID:23066785 DOI:10.3109/14653249.2012.714865   
2. Yao L, Daly W, Newland B, Yao S, Wang W, Chen BK, Madigan NN, Windebank A, Pandit A. Improved axonal regeneration of transected spinal cord mediated by multichannel collagen conduits functionalized with neurotrophin-3 gene. Gene Ther. 2013 Dec; 20(12):1149-57. Epub 2013 Jul 25. PMID:23883961 DOI:10.1038/gt.2013.42   
3. Madigan NN, Chen BK, Knight AM, Rooney GE, Sweeney E, Kinnavane L, Yaszemski MJ, Dockery P, O'Brien T, McMahon SS, Windebank AJ. Comparison of cellular architecture, axonal growth, and blood vessel formation through cell-loaded polymer scaffolds in the transected rat spinal cord. Tissue Eng Part A. 2014 Nov; 20: (21-22)2985-97. PMID:24854680 PMCID:4229864 DOI:10.1089/ten.TEA.2013.0551   
4. Staff NP, Madigan NN, Morris J, Jentoft M, Sorenson EJ, Butler G, Gastineau D, Dietz A, Windebank AJ. Safety of intrathecal autologous adipose-derived mesenchymal stromal cells in patients with ALS. Neurology. 2016 Nov 22; 87: (21)2230-2234. PMID:27784774 PMCID:5123559 DOI:10.1212/WNL.0000000000003359   
5. Chen BK, Madigan NN, Hakim JS, Dadsetan M, McMahon SS, Yaszemski MJ, Windebank AJ. GDNF Schwann cells in hydrogel scaffolds promote regional axon regeneration, remyelination and functional improvement after spinal cord transection in rats. J Tissue Eng Regen Med. 2017 Mar 10; PMID:28296347 DOI:10.1002/term.2431   
6. Harris GM, Madigan NN, Lancaster KZ, Enquist LW, Windebank AJ, Schwartz J, Schwarzbauer JE. Nerve Guidance by a Decellularized Fibroblast Extracellular Matrix. Matrix Biol. 2017 Jul; 60-61:176-189. PMID:27641621 PMCID:5352540 DOI:10.1016/j.matbio.2016.08.011   
7. Madigan NN, Staff NP, Windebank AJ, Benarroch EE. Genome editing technologies and their potential to treat neurologic disease. Neurology. 2017 Sep 20; PMID:28931646 DOI:10.1212/WNL.0000000000004558   
  
Abstracts   
1. Yao L, Daly B, Newland B, Yao S, Chen BK, Madigan N, Windebank A, Pandit A. Improving axon growth of transected spinal cord using multichannel collagen conduits carrying NT-3 gene. Mol Ther. 2012 May; 20:S165-6.   
2. Keane E, Madigan NN, Canney M, Thompson K, O'Brien T, Windebank AJ, McMahon SS. Apoptosis in cell-loaded scaffolds in a transection model of rat spinal cord injury. Ir J Med Sci. 2013 Jun; 182:S132-3.   
3. Madigan NN, Chen BK, Hakim JS, Schmeichel AM, Knight AM, Zhang S, Nesbitt JJ, Dadsetan M, Chiang T, Yaszemski MJ, Windebank AJ. GDNF-secreting schwann cells in multichannel OPF+ hydrogel scaffolds promote ascending axonal regeneration, remyelination and partial locomotor recovery following complete spinal cord transection in rats Ann Neurol. 2015; 78(19):S107.   
4. Harris G, Bandini S, Wang H, Madigan NN, Windebank A, Yaszemski M, Schwartz J, Schwarzbauer J. Patterned Extracellular Matrix on "Nerve Friendly" Polymers for Neurite Guidance and Regeneration Biomedical Engineering Society.2015;   
  
Research Interests   
Applications of genetically modified, therapeutic cell lines for neural regeneration in the setting of spinal cord injury, motor neuron disease and peripheral nerve repair.   
  
Approaches for neural tissue engineering which combine polymeric delivery of gene-modified cells, anti-fibrotic drugs, and neurotrophic factors.   
  
Research Grants Awarded:   
Active   
Mayo Clinic, Co-Investigator: A cell-based approach for preventing chemotherapy-induced peripheral neuropathy. Funded by CRM - Center for Regenerative Medicine 2016 - 2018   
  
Mayo Clinic, Co-Investigator: A cell-assembled matrix template to guide nerve regeneration in the spinal cord. Funded by New Jersey Commission for Spinal Cord Research 2015 - 2018   
  
Mayo Clinic, Co-Investigator: Augmenting the spinal cord lesion environment and sublesional circuity using epidural stimulation with electrically-conductive, Schwann cell seeded hydrogel scaffolds. Funded by the Minnesota Office of Higher Education, Spinal Cord Injury and Traumatic Brain Injury Research Grant Program 2017-2018.   
  
Mayo Clinic, Co-Investigator: Assessment of chemotherapy-induced peripheral neuropathy susceptibility using patient-derived iPSC technology. NIH R01 2017 - 2022   
  
Completed:   
Mayo Clinic, Co-Investigator: Combining Biodegradable Polymer Scaffolds with Induced Pluripotent Stem (iPS) Cell-Derived Oligodendrocyte Progenitor Cells (OPCs) for Repair of Spinal Cord Injury. Funded by Center for Regenerative Medicine 2015 - 2016   
  
Mayo Clinic, Co-Investigato:r Development of clinical-grade neurotrophic factor-secreting mesenchymal stem cell technology for treatment of amyotrophic lateral sclerosis and other neurodegenerative diseases. Funded by CRM - Center for Regenerative Medicine 2015 - 2016   
  
Mayo Clinic, Co-Investigator: Axonal Regeneration Supported by Oligo[poly(ethylene glycol)fumarate] Cell Loaded Hydrogel Scaffplds in the Transected Rat Spinal Cord. Funded by Health Resarch Board, Ireland 07/2007 - 06/2010

***David Oswald, MD***  
Paracelsus Medical University

*(no CV uploaded)*

***Domhnall Kelly, MSc***  
National University of Ireland, Galway (Nuig)

*(no CV uploaded)*

***Jeffery Hakim, MD, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Bingkun Chen, MD, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Michael Yaszemski, MD, PhD***  
Mayo Clinic

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***Anthony Windebank, MD***  
Mayo Clinic

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**6**

**Metabolic dysfunction exacerbates astrogliosis and impairs motor recovery after experimental spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Haneui Kim,***   
Mayo Clinic

**CV:**  
Ha Neui Kim   
  
EDUCATION AND TRAINING   
  
2016-present Research Fellow in Physical Medicine and Rehabilitation   
Mayo Clinic, Rochester, Minnesota   
Advisor: Dr. Scarisbrick Isobel A.   
  
2014-2016 Postdoc in Neuroscience   
Pusan National University School of Korean medicine   
Advisor: Dr. Byung Tae Choi   
  
2011-2014 Ph.D. in Korean Medical Science   
Pusan National University School of Korean medicine   
Advisor: Dr. Byung Tae Choi   
  
2009-2011 M.S. in Korean Medical Science   
Pusan National University School of Korean medicine   
Advisor: Dr. Byung Tae Choi   
  
2005-2009 B.S. in biology   
Kyung Sung University   
  
AWARDS   
  
• The 9th Busan Future Scientist Contest (2013, Busan, Korea)   
• The Excellence Poster Presentation Award (2013, 35th the Korean   
Society for Cell Biology)   
• Prize of superiority journal presentation (2012, 62th Korean   
Association of Anatomists)   
  
RESEARCH EXPERIENCE   
  
2009-Present   
• Various experience in research for glutamate receptors and glutamate-related signaling pathways from spinal cord level of inflammatory rat model using Western blotting, RT-PCR, ELISA, Immunohistochemistry and various molecular assay.   
• Search for neuroprotective effect against glutamate-induced oxidative toxicity from herbal extract in vitro such as cell lines and primary culture.   
• Search for improve memory and behavior of neurodegenerative disease from regulation of molecular target and neuronal activity using in vivo model such as stroke and ischemic injury (MCAO mice model), multiple sclerosis (EAE mice model), cerebral palsy (hypoxic injury rat model) and lateral compression spinal cord injury model.   
• Research on the white matter injury from CNS network (neuron, astrocyte and oligodendrocyte) in vivo model.   
• Research on behavioral and molecular study for rehabilitation with exercise training in cerebral palsy.   
• Extensive background in spinal cord and brain injury.   
  
  
PUBLICATIONS   
  
• Jang JY, Kim HN, Koo ST, Shin HK, Choe ES, Choi BT: Synergetic anti-nociceptive Effects of N-methyl-D-aspartate Antagonist and Electro-acupuncture in the Complete Freund's Adjuvant-induced Pain Model, International journal of molecular medicine, vol. 28, pp. 669-675, 2011.   
  
• Jang JY, Kim HN, Kim YR, Choi WY, Choi YH, Shin HK, Choi BT: Partially purified components of Nardostachys chinensis suppress melanin synthesis through ERK and Akt signaling pathway with cAMP down-regulation in B16F10 cells, Journal of Ethnopharmacology, vol. 167, pp. 1207–1214, 2011.   
  
• Kim HN, Kim YR, Jang JY, Shin HK, Choi BT: Effects of electroacupuncture on N-methyl-D-aspartate receptor-related signaling pathway in the spinal cord of normal rat, Evidence-Based Complementary and Alternative Medicine, vol. 2012, pp. 9, 2012.   
  
• Kim HN, Kim YR, Jang JY, Shin HK, Choi BT: Electroacupuncture inhibits phosphorylation of spinal phosphatidylinositol 3-kinase/Akt in a carrageenan-induced inflammatory rat model, Brain Research Bulletin, vol. 57, pp. 199-204, 2012.   
  
• Kim HN, Kim YR, Jang JY, Shin HK, Choi BT: Electroacupuncture confers antinociceptive effects via inhibition of glutamate transporter down-regulation in complete Freund's adjuvant-injected rats, Evidence-Based Complementary and Alternative Medicine, vol. 2012, pp.11, 2012.   
  
• Jang JY, Kim HN, Kim YR, Choi YH, Kim BY, Shin HK, Choi BT: Aqueous fraction from Cuscuta japonica seed suppresses melanin synthesis through inhibition of the p38 mitogen-activated protein kinase signaling pathway in B16F10 cells, Journal of Ethnopharmacology, vol. 141, pp. 338–344, 2012.   
  
• Jang JY, Kim HN, Kim YR, Hong JW, Choi YW, Choi YH, Shin HK, Choi BT: Hexane extract from Uncaria sinensisexhibits anti-apoptotic properties against glutamate induced neurotoxicity in primary cultured cortical neurons, International Journal of Molecular Medicine, vol. 30, pp. 1465-1472, 2012.   
  
• Jang JY, Kim HN, Kim YR, Choi YW, Choi YH, Lee JH, Shin HK, Choi BT: Hexane extract from polygonum multiflorum attenuates glutamate-induced apoptosis in primary cultured cortical neurons, Journal of Ethnopharmacology, vol. 145, pp. 261-268, 2013.   
  
• Kim JH, Choi KH, Jang YJ, Kim HN, Bae SS, Choi BT, Shin HK: Electroacupuncture preconditioning reduces cerebral ischemic injury via BDNF and SDF-1α in mice, BMC Complementary and Alternative Medicine, vol. 13, pp. 22, 2013.   
  
• Kim YR, Kim HN, Jang JY, Shin HK, Choi BT: Electroacupuncture confers beneficial effects through ionotropic glutamate receptors involving phosphatidylinositol-3 kinase/Akt signaling pathway in focal cerebral ischemia in rats, European Journal of Intergrative Medicine, vol. 4, pp. e413-420, 2012.   
  
• Kim HN, Kim YR, Jang JY, Choi YW, Baek JU, Hong JW, Choi YH, Shin HK, Choi BT: Neuroprotective effects of Polygonum multiflorum extract against glutamate-induced oxidative toxicity in HT22 hippocampal cells, Journal of Ethnopharmacology, vol. 150, pp. 108-115, 2013.   
  
• Kim YR, Kim HN, Jang JY, Park C, Lee JH, Shin HK, Choi YH, Choi BT: Effects of electroacupuncture on apoptotic pathways in a rat model of focal cerebral ischemia, International Journal of Molecular Medicine, vol. 32, pp. 1303-1310, 2013.   
  
• Jang JY, Choi YW, Kim HN, Kim YR, Hong JW, Bae DW, Park SJ, Shin HK, Choi BT: Neuroprotective Effects of a Novel Single Compound 1-Methoxyoctadecan-1-ol Isolated from Uncaria sinensis in Primary Cortical Neurons and a Photothrombotic Ischemia Model, PLOS ONE, vol. 9, pp. e85322- , 2014.   
  
• Kim YR, Kim HN, Ahn SM, Choi YH, Shin HK, Choi BT: Electroacupuncture Promotes Post-Stroke Functional Recovery via Enhancing Endogenous Neurogenesis in Mouse Focal Cerebral Ischemia, PLOS ONE, vol. 9, pp. e90000-, 2014.   
  
• Ahn SM, Kim HN, Kim YR, Oh EY, Choi YW, Shin HK, Choi BT: Neuroprotective effect of 1-methoxyoctadecan-1-ol from Uncaria sinensis on glutamate-induced hippocampal neuronal cell death, Journal of Ethnopharmacology, vol 155, pp. 293-299, 2014.   
  
• Han YJ, Je JH, Kim SH, Ahn SM, Kim HN, Yu Ri Kim, Choi YW, Shin HK, Choi BT: Gastrodia elata Shows Neuroprotective Effects via Activation of PI3K Signaling against Oxidative Glutamate Toxicity in HT22 Cells, The American Journal of Chinese Medicine, vol. 42, pp. 1007-1019, 2014.   
  
• Kim YR, Kim HN, Pak ME, Ahn SM, Hong KH, Shin HK, Choi BT: Studies on the animal model of post-stroke depression and application of antipsychotic aripiprazole, Behavioural Brain Research, vol. 287, pp. 287-303, 2015.   
  
• Ahn SM, Kim YR, Kim HN, Shin HK, Choi BT: Beneficial effects of polygonum multiflorum on hippocampal neuronal cells and mouse focal cerebral ischemia, The American Journal of Chinese Medicine, vol. 43, pp. 1-15, 2015.   
  
• Ahn SM, Kim YR, Kim HN, Choi YW, Lee JW, Kim CM, Baek JU, Shin HK, Choi BT: Neuroprotection and spatial memory enhancement of four herbal mixture extract in HT22 hippocampal cells and a mouse model of focal cerebral ischemia, BMC Complement and Alternative Medicine, vol. 15, pp. 202, 2015.   
  
• Kim YJ, Kim HN, Shin MS, Choi BT: Thread embedding acupuncture inhibits ultraviolet B irradiation-induced skin photoaging in hairless mice, Evidence-Based Complementary and Alternative Medicine, vol. 2015, pp. 9, 2015. (co-first author)   
  
• Kim HN, Jang JY, Choi BT: A single fraction from Uncaria Sinensis exerts neuroprotective effects against glutamate-induced neurotoxicity in primary cultured cortical neurons, Anatomy and Cell Biology, vol. 48, pp. 95-103, 2015.   
  
• Kim HN, Kim YR, Ahn SM, Lee SK, Shin HK, Choi BT: Protease activated receptor-1 antagonist ameliorates the clinical symptoms of experimental autoimmune encephalomyelitis via inhibiting breakdown of blood brain barrier, Journal of Neurochemistry, vol. 135, pp. 577-588, 2015.   
  
• Pak ME, Kim YR, Kim HN, Ahn SM, Shin HK, Baek JU, Choi BT: Studies on medicinal herbs for cognitive enhancement based on the text mining of Dongeuibogam and preliminary evaluation of its effects, Journal of Ethnopharmacology, vol. 179, pp. 383-390, 2016.   
  
• Kim YR, Kim HN, Hong KW, Shin HK, Choi BT: Anti-depressant effects of phosphodiesterase 3 inhibitor cilostazol in chronic mild stress-treated mice after ischemic stroke, Psychopharmacology, vol. 233, pp. 1055-1066, 2016.   
  
• Ahn SM, Kim HN, Kim YR, Choi YW, Kim CM, Shin HK, Choi BT: Emodin from polygonum multiflorum ameliorates oxidative toxicity in HT22 cells and deficits in photothrombotic ischemia, Journal of Ethnopharmacology, vol. 188, pp. 13-20, 2016.   
  
• Ahn SM, Kim YR, Kim HN, Shin YI, Shin HK, Choi BT: Electroacupuncture ameliorates memory impairments by enhancing oligodendrocyte regeneration in a mouse model of prolonged cerebral hypoperfusion, Scientific Reports, vol. 6, pp. 26646, 2016.   
  
• Kim HN, Gill CH, Kim, YR, Shin HK, Choi BT: Anti-photoaging properties of the phosphodiesterase 3 inhibitor cilostazol in ultraviolet B-irradiated hairless mice, Scientific Reports, vol. 6, pp. 31169, 2016.   
  
• Kim YR, Kim HN, Hong KW, Shin HK, Choi BT: Antidepressant Effects of Aripiprazole Augmentation for Cilostazol-Rreated Mice Exposed to Chronic Mild Stress after Ischemic Stroke, International Journal of Molecular Sciences, vol. 8, pp. 18, 2017.   
  
• Kim HN, Pak ME, Shin MJ, Kim SY, Shin YB, Yun YJ, Shin HK, Choi BT: Beneficial effects of Jiawei Shenqi-wan and treadmill training on deficits associated with neonatal hypoxic-ischemia in rats, Experimental and Therapeutic Medicine, vol. 13, pp. 2134-2142, 2017.   
  
• Kim HN, Pak ME, Shin MJ, Kim SY, Shin YB, Yun YJ, Shin HK, Choi BT: Comparative studies on beneficial effects of treadmill training and electroacupuncture in a rat model of neonatal hypoxia-ischemia, International Journal of Molecular Medicine, vol. 39, pp. 1393-1402, 2017.

***Hyesook Yoon, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Andrew Kleven, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Laurel Kleppe,***   
Mayo Clinic

*(no CV uploaded)*

***Lan Lanza, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Nathan LeBrasseur, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Aleksey Matveyenko, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Isobel Scarisbrick, PhD***  
Mayo Clinic

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**7**

**Accelerated Cardiometabolic Risks and Extant Atherosclerotic Disease in a Model of Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Gregory Bigford, PhD***  
University of Miami Miller School of Medicine

**CV:**  
Name: Gregory E. Bigford, PhD   
  
Position Title: Assistant Scientist,   
University of Miami Miller School of Medicine   
  
A. Personal Statement   
  
My training in basic and clinical science has centered on CNS pathophysiology, where I have investigated biological mechanisms involved in neurodegeneration, maladaptive immunity, inflammation and metabolism in traumatic brain and spinal cord injury. I am currently coordinating a clinical intervention trial for persons with chronic SCI, overseeing diet, exercise, and behavioral modification strategies, and evaluating outcome measures related to cardiometabolic disease, including maladaptive metabolism, inflammation, and diabetes risk. These secondary complications now represent the leading cause of morbidity and mortality in chronic SCI. This initiative has allowed me the opportunity to lead an independent research program based on clinically relevant observations pervasive in the population. Findings from this research have led to several publications that are among the first to define underlying genetic and biological processes contributing to chronic pathological conditions in SCI. I have presented my findings at several national conferences and I am an award recipient (2015) and nominee (2013, 2016) from the American Spinal Injury Association, and a 2014 award recipient (2nd place) from the International Spinal Cord Society. I have active editorial responsibilities as an ad hoc manuscript reviewer for several peer-reviewed scientific journals, including Archives of Physical Medicine and Rehabilitation, Applied Physiology, Nutrition and Metabolism, Journal of the Neurological Sciences, the Journal of Neurotrauma, the Journal of Spinal Cord Medicine, Medicine and Science in Sport and Exercise, PLoS ONE, and Spinal Cord. I am a member of several scientific organizations, including the American Heart Association, the American Spinal Injury Association, and the National Neurotrauma Society. I am also an interdisciplinary instructor for various programs and departments at the University of Miami Miller School of Medicine.   
  
B. Positions and Employment   
  
Professional Appointments   
  
2011-present Assistant Scientist   
Miller School of Medicine, University of Miami, Miami, Florida   
  
2009-2011Postdoctoral Fellow   
Miami VA, Miami Florida   
University of Miami Miller School of Medicine, , Miami, Florida   
  
Honors and Awards   
  
2016 Scientific Advisory Committee Capital Equipment Grant Award ($15, 000)   
University of Miami Miller School of Medicine   
  
2016 Poster Presentation Award Nominee   
American Spinal Injury Association   
  
2015 Presentation Award and Honorarium Recipient – Best Podium Presentation   
American Spinal Injury Association/International Spinal Cord Injury Association   
  
2014 Presentation Award Recipient – Podium Presentation – 2nd International Spinal Cord Society   
  
2013 Oral Presentation Award Nomination   
American Spinal Injury Association   
  
2010 Invited Symposium Presenter,   
Florida-Georgia Alliance for Minority Participation Conference   
  
2009 Magna Cum Laude   
University of Miami Miller School of Medicine   
  
2006 Poster Award Nomination   
Annual Biomedical Research Conference for Minority Students   
  
2003-2008 Lois Pope LIFE Fellowship   
University of Miami Miller School of Medicine   
  
2002-2003 Graduate Student Assistantship   
University of Miami, School of Education, Department of Exercise and Sport Science   
  
Other Experience and Professional Membership   
  
2016 Ad Hoc Reviewer, Journal of the Neurological Sciences   
2015 Ad Hoc Reviewer, Archives of Physical Medicine and Rehabilitation   
2015 Ad Hoc Reviewer, Medicine and Science in Sports and Exercise   
2014 Accepted Member, American Heart Association   
2014 Accepted Member, National Neurotrauma Society   
2014 Accepted Member, American Spinal Injury Association   
2014 Ad Hoc Reviewer, Journal of Spinal Cord Medicine   
2013 Ad Hoc Reviewer, Applied Physiology, Nutrition and Metabolism   
2013 Ad Hoc Reviewer, Spinal Cord   
2012 Ad Hoc Reviewer, PLoS ONE   
2011 Ad Hoc Reviewer, Journal of Neurotrauma   
  
C. Peer-Review Manuscripts   
  
1) My interest in neuroscience began during my graduate studies while taking elective courses at the University of Miami Miller School of Medicine. After switching into a dedicated neuroscience doctoral program, in the laboratory of Dr. Robert W. Keane, we studied glutamatergic signaling in the CNS, and cell death mechanisms following traumatic injury. We made the seminal discovery that glutamate signaling via NMDA type IIB receptors was linked to the process of autophagy in the brain, and that trauma activated IIB-mediated autophagy and contributed directly to cell death. Later as postdoctoral fellow, we were able to make the novel discovery that IIB receptor activity could be modulated by serotonin (5HT) type IIC receptor-mediated signaling in the spinal cord.   
  
1. Bigford GE., Chaundry, NS., Keane RW., Holohean AM. (2012) 5HT2C receptors form a protein complex with GluN2A subunits and activate phosphorylation of Src to modulate N-methyl-D aspartate-induced motoneuronal depolarization. JBC 287(14), 11049-59.   
2. Bigford GE., Alonso OF., Dietrich WD., Keane RW. (2009) A novel protein complex in membrane rafts linking NR2B signaling and Autophagy is disrupted in the traumatized brain. Journal of Neurotrauma. 26(5), 703-20.   
  
2) After my graduate studies and fellowship, I became interested in signaling in the CNS that regulated energy balance and global metabolic pathology observed in chronic spinal cord injury (SCI). While in the laboratory of Dr. Mark Nash at the University of Miami Miller School of Medicine, I developed several in vivo studies examining neuroendocrine and metabolic dysfunction in an experimental model of SCI. In the first of these studies we discovered altered leptin signaling pathways and activation of the uncoupled protein response – biological hallmarks of leptin resistance and hypothalamic inflammation. Separately, we identified the formation and activation of the NLRP3 inflammasome and the metabolic effectors IL1beta, and IL18 in both visceral fat and the pancreas. These were the first reports that provided evidence for central and peripheral inflammatory processes directly associated with metabolic dysfunction, implicating SCI as an inciting event for acquired cardiometabolic disease risk.   
  
1. Bigford GE., Bracchi-Ricard VC., Nash MS., Bethea JR. (2013) Neuroendocrine and cardiac metabolic dysfunction and NLRP3 inflammasome activation in adipose tissue and pancreas following chronic spinal cord injury in the mouse. ASN Neuro 5(4), 243-55.   
2. Bigford GE., Bracchi-Ricard VC., Nash MS., Bethea JR. (2012) Alterations in mouse hypothalamic adipokine gene expression and leptin signaling following spinal cord injury and with advanced age. PlosONE 7(7), e41073.   
  
3) As I continued my career in Dr. Nash’s laboratory, my research experience expanded to studying countermeasures to cardiometabolic risk factors in SCI in the human population. I am especially interested in lifestyle and behavior modification interventions that include nutrition/diet, exercise, and psychosocial support. I have been the clinical trial coordinator of a multi-center clinical intervention. We have presented several clinically relevant findings at national and international conferences, and submitted a manuscript which highlights the effectiveness of intervention on reducing dyslipidemia and glucose intolerance. We have published several reviews and case-series on the effectiveness of multi-modal behavior modification as an appropriate intervention for cardiometabolic disease risk factors, and I have written an additional review highlighting nutritional adjunctive agents in various neurological diseases and disorders.   
  
1. Bigford G. and Nash M.S. (2017) Nutritional Health Considerations for Persons with Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation 23 (3), 188-206.   
2. Bigford GE., Mendez AJ., Betancourt LF., Burns-Drecq P., Backus D., Nash MS. (2017) A Lifestyle Intervention Program for Successfully Addressing Major Cardiometabolic Risks in Persons with SCI: A Three-Subject Case Series. Spinal Cord Series and Cases 3, 17007.   
3. Kressler J., Cowen RE., Bigford GE., Nash MS. (2014) Reducing Cardiometabolic Disease in Spinal Cord Injury. Physical Medicine and Rehabilitation Clinics of North America 25(3), 573-604.   
4. Bigford GE and Del Rossi G. (2014) Supplemental substances derived from foods as adjunctive therapeutic agents for treatment of neurodegenerative diseases and disorders. Advances in Nutrition 5, 394-403.   
  
Complete List of Published Work in MyBibliography:   
  
http://www.ncbi.nlm.nih.gov/sites/myncbi/1r12ukqbcov5f/bibliography/49889854/public/?sort=date&direction=ascending.   
  
D. Research Support   
  
Active   
  
DHHS/NIDILRR 10/1/2015 – 9/30/2020   
(Nash MS., PI; Role: Site Trial Co-Coordinator)   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment   
  
This study investigates the impact of a model SCI lifestyle intervention (LI) program on attributes of health and function are recognized to compromise healthy aging in persons with SCI living in caregiver/care-receiver relationship. The study will also examine the impact of LI on the caregiver/care-receiver dyad relationship and determine whether co-intervention with the caregiver improves health/function outcomes for their partner.   
  
Scholar Rock, Inc. 4/1/2016 – 9/30/2017   
(Nash MS., PI; Role: Co-Investigator)   
Investigation of an Inhibitor of Myostatin Activation on Musculoskeletal Pathophysiology Following Moderate and Severe Contusion Spinal Cord Injury.   
  
the overarching study objective is to determine in a controlled research design whether selective myostatin antagonism attenuates the impact of SCI on biological, physiological, and behavioral outcomes.   
  
Craig H. Neilsen 10/1/2015 – 9/30/2017   
(Nash MS., PI; Role: Co-Investigator)   
A Time-Course Study of Experimental Cardiometabolic Risk/Disease After SCI   
  
The overarching study objective is to test in a controlled research design whether spinal cord injury (SCI) imposed by severe contusion injury (CI) hastens the native trajectory of, and established component risks for, atherosclerotic disease (AD).   
  
Completed   
  
State of Florida Department of Health 7/2014 – 7/2016   
(Nash MS., PI; Role: Co-Investigator)   
Evaluation of Neuroendocrine and Enteric Innervation after Spinal Cord Injury.   
  
The goal of this study to examine whether spinal cord injury (SCI) via severe thoracic contusion injury (CI) incites pathological variances in central neuroendocrine and peripheral enteric signaling mechanisms contributing to impaired energy metabolism, obesity, and component risks for cardiometabolic disease.   
  
Department of Defense 9/2010 – 10/2015   
(Nash MS., PI; Role: Multicenter Trial Coordinator)   
Obesity/Overweight in Persons with Early and Chronic SCI: A Randomized Multi-Center Controlled Lifestyle Intervention.   
Sponsor: Department of Defense   
The goal of the study is to study the effects of diet, exercise, and behavioral lifestyle intervention on obesity, cardiovascular disease and diabetes risk in persons with chronic SCI   
Role: Clinical trial coordinator.   
  
The U.S. Department of Veterans Affairs. 10/1/2006 – 9/30/2010   
(Holohean AM., PI; Role: Postdoctoral Fellow)   
Mechanisms of 5-HT2 modulation of NMDA responses in the spinal cord.   
  
The goal of the research was to examine the modulatory effects of serotonin receptor activation on glutamatergic signaling in the spinal cord.

***Edward Herderick,***   
Eeh Science Llc

*(no CV uploaded)*

***Armando Mendez, PhD***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Mark Nash, PhD***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

**8**

**Factors associated with regular dental care in people with spinal cord injury: Results from the FRASCI study**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Jennifer Coker, MPH***  
Craig Hospital

**CV:**  
EMPLOYMENT   
09/2017 to present: Principal Investigator, A multi-site randomized controlled trial of an intervention to improve outcomes after spinal cord injury (funded by the National Institute on Disability, Independent Living, and Rehabilitation Research, NIDILRR), Craig Hospital, Englewood, CO   
09/2016 to present: Principal Investigator, Utilization of Complementary and Integrative Healthcare to Treat Pain in Persons with Spinal Cord Injury (NIDILRR), Craig Hospital, Englewood, CO   
11/2014 to present: Principal Investigator, A Bridge from Rehabilitation to Real-World: Reinventing Yourself after SCI (Craig H Neilsen Foundation), Craig Hospital, Englewood, CO   
04/2012 to present: Research Associate, Rocky Mountain Regional Spinal Injury System (RMRSIS) (NIDILRR), Craig Hospital, Englewood, CO   
10/2011 to 04/2012: Co-Investigator, Rehabilitation Research and Engineering Center on Wireless Technology, Crawford Research Institute, Shepherd Center, Atlanta, GA,   
01/2011 to 04/2012: Senior Research Analyst, Crawford Research Institute, Shepherd Center, Atlanta, GA   
05/2005 to present: Project Coordinator II, IRB Coordinator, Grant Writer, College of Health Professions, Medical University of South Carolina (MUSC), Charleston, SC   
01/2003 to 05/2005: Assistant Professor, Research, College of Health Professions, MUSC, Charleston, SC   
10/2002-01/2003: Research Coordinator, Crawford Research Institute, Shepherd Center, Atlanta, GA   
03/2001-10/2002: Research Coordinator, Georgia Model Brain Injury System (GAMBIS) (NIDRR), Crawford Research Institute, Shepherd Center & Emory University Center for Rehabilitation Medicine, Atlanta, GA   
06/1998-02/2001: Research Publications Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA,   
09/1997 - 05/1998: Research Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA   
  
AWARDS & HONORS   
Rollins School of Public Health, Emory University: The James W. Alley Award for Outstanding Service to Disadvantaged Populations. May 14, 2001.   
American Spinal Injury Association, 2nd place poster prize: The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Poster presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best paper presenting original research findings for: Employment after Spinal Cord Injury: An Analysis of Cases from the Model Spinal Injury Systems.   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best poster presenting original research findings for: Health Behaviors of Women with Spinal Cord Injury.   
  
THESIS   
Coker, J. L., Thompson, N., & Krause, J. S. (2001). Social support and health outcomes after spinal cord injury: A mediation analysis. Defended March, 2001.   
  
PROFESSIONAL MEMBERSHIPS   
2016 to present: American Spinal Injury Association (ASIA) – Student Member   
2017 to present: International Spinal Cord Society (ISCoS) – Student member   
2017 to present: Cycle of Hope – Board of Directors   
  
PUBLICATIONS IN PROFESSIONAL JOURNALS:   
1. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Selected health behaviors among American Indians with spinal cord injury: Comparison to 1996 data from the Behavioral Risk Factor Surveillance System. Archives of Physical Medicine and Rehabilitation, 80, 1435-1440.   
2. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Depression and subjective well being among 97 American Indians with spinal cord injury. Rehabilitation Psychology, 44, 354-372.   
3. Krause, J. S., Kewman, D., DeVivo, M. J., Maynard, F., Coker, J. L., Roach, M. J., & Ducharme, S. (1999). Employment after spinal cord injury: An analysis of cases from the model spinal injury systems. Archives of Physical Medicine and Rehabilitation, 80, 1492-1500.   
4. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (2000). Health outcomes among American Indians with spinal cord injury. Archives of Physical Medicine and Rehabilitation, 81, 924-931.   
5. Krause, J. S., Kemp, B. J., & Coker, J. L. (2000). Depression after spinal cord injury: Relationship with gender, race/ethnicity, aging, and socioeconomic indicators. Archives of Physical Medicine and Rehabilitation, 81, 1099-1109.   
6. Krause, J. S., Vines, C. L., Farley, T. L., Sniezek, J., & Coker, J. L. (2001). An exploratory study of pressure ulcers after spinal cord injury: Relationship to protective behaviors and risk factors. Archives of Physical Medicine and Rehabilitation, 82, 107-113.   
7. Alderson, A., Godsall, R., Mullin, J., Coker, J., & Macciocci, S. (2001). Serial cognitive assessment in an outpatient rehabilitation setting. Archives of Clinical Neuropsychology, 16, 757-769.   
8. Mullin, J., Ripley, D., Vargas, J., Godsall, R., Korrick, S., & Coker, J. (2002). Relationship between balance and cognition following traumatic brain injury. Premier Outlook, 3(4), 30-35.   
9. Thompson, N., Coker, J. L., Krause, J. S., & Henry, E. (2003). Purpose in life as a mediator of adjustment after spinal cord injury. Rehabilitation Psychology, 48, 100-108.   
10. Macciocchi, S. N., Bowman, B., Coker, J. L., Apple, D., & Leslie, D. P. (2004). The impact of co-morbid traumatic brain injury on functional outcome of persons with spinal cord injury. American Journal of Physical Medicine and Rehabilitation, 83, 22-26.   
11. Krause, J. S., Coker, J. L. (2006). Aging after spinal cord injury: A 30-year longitudinal study. Journal of Spinal Cord Medicine, 29, 371-376.   
12. Krause, J.S., Saunders, L.L., Reed, K.S., Coker, J.L., Zhai, Y, & Johnson, E. (2009). Comparison of the Patient Health Questionnaire and the Older Adult Health and Mood Questionnaire for self-reported depressive symptoms after spinal cord injury. Rehabilitation Psychology, 54, 440-448.   
  
PRESENTATIONS AT PROFESSIONAL CONFERENCES   
1. Krause, J. S., Coker, J. L., & Sutton, G. Risk for secondary conditions: A model for prediction and prevention. Presented at the annual meeting of the American Spinal Cord Injury Association, Cleveland, Ohio; April, 1998.   
2. Coker, J. L., Krause, J. S., Charlifue, S., & Sutton, G. Utilization of items from the BRFSS to monitor health related behaviors of persons with spinal cord injuries. Presented at the annual Centers for Disease Control & Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS) conference, Atlanta, Georgia; May, 1998.   
3. Krause, J. S., Sternberg, M., & Coker, J. L. Prospective predictions of mortality after spinal cord injury. Presented at the annual conference of the American Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1998.   
4. Coker, J. L., & Krause, J. S. Risk for further injury after the onset of SCI. Presented at the annual meeting of the American Congress of Rehabilitation Medicine, Seattle, Washington; November, 1998.   
5. Coker, J. L., Krause, J. S., Vines, C. L., & Farley, T. L. Behavioral predictors of pressure ulcers: A population cohort. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
6. Coker, J. L., Krause, J. S., & Charlifue, S. Pressure ulcers and secondary injuries among American Indians with spinal cord injury. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
7. Coker, J. L., Krause, J. S., Whiteneck, G. G., & Charlifue, S. Health behaviors among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
8. Coker, J. L., Krause, J. S., & Hudson, L. The prevalence of secondary injuries after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
9. Krause, J. S., Hudson, L., & Coker, J. L. Purpose in life after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
10. Krause, J. S., Coker, J. L., Whiteneck, G. G., & Charlifue, S. Health outcomes of secondary conditions among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
11. Coker, J. L., Krause, J. S., & Henry, E. Prediction of employment after spinal cord injury: Matching research participants to individual cases. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
12. Krause, J. S., & Coker, J. L. Purpose in life after spinal cord injury. Part of a symposium entitled “Dealing with chronic injury: The role of purpose and spirituality.” Presented at the annual conference of the American Psychological Association, Boston, Massachusetts; August, 1999. (Presented by J. L. Coker).   
13. Coker, J. L., & Krause, J. S. Purpose in life after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999.   
14. Crewe, N. M., & Coker, J. L. Case studies of depression following SCI. Part of a panel presentation entitled “Depression among individuals in the community with spinal cord injury: Incidence, correlates, case studies, and treatment” presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999. (Presented by J. L. Coker).   
15. Krause, J. S., Kemp, B. J., & Coker, J. L. Correlates of depression after spinal cord injury. Presented at the annual conference of the American Congress of Rehabilitation Medicine, Orlando, Florida; October, 1999.   
16. Coker, J. L., Krause, J. S., & Henry, E. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Public Health Association, Chicago, Illinois; November, 1999.   
17. Coker, J. L., & Krause, J. S. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000 (2nd place prize winner).   
18. Coker, J. L., & Krause, J. S. Relationship of personality with risk behaviors in individuals with spinal cord injury. Presented at the annual meeting of the American Psychological Association, Division 22, Washington, DC; August, 2000.   
19. Gemella, A. G., Krause, J. S., & Coker, J. L. Health behaviors among women with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
20. Coker, J. L., & Krause, J. S. A comparison of psychosocial factors between five racial/ethnic groups. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
21. Coker, J. L., & Krause, J. S. Reasons for unemployment among 160 individuals with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
22. Coker, J. L., & Krause, J. S. Social support after traumatic spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
23. Krause, J. S., & Coker, J. L. Depression after spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
24. Coker, J. L. Factors involved in maintaining quality of life. Presentation for the American Spinal Injury Association pre-course entitled, “Aging with spinal cord injury: Clinical implications from recent research findings.” Long Beach, California; May 17, 2001.   
25. Ripley, D. L., Macciocchi, S., Coker, J. L., & Huang, M. Diabetes mellitus and functional outcome following cerebrovascular accident. Presented at the annual meeting of the Association of Academic Physiatrists, Las Vegas, Nevada; March, 2002. (Presented by J. L. Coker).   
26. Coker, J. L. Outcomes of persons with spinal cord injuries living in rural and urban settings. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2002.   
27. Coker, J. L. Social support and health outcomes after spinal cord injury. Presented at the annual conference of the American Psychological Association, Honolulu, Hawaii; July, 2004.   
28. Coker, J. L. Maintenance of healthy affect and avoidance of depression after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
29. Coker, J. L. Pre-injury alcohol use, intoxication at injury, and sensation seeking among persons with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
30. Coker, J. L. Factors associated with earnings from gainful employment after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
31. Coker, J. L. Spiritual coping: Differences between Caucasians and African Americans with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
32. Coker, J. L. & Krause, J. S. Disparities in subjective well-being, participation, & health after SCI: A 6-year longitudinal Study. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
33. Coker, J. L. & Krause, J. S. Depressive symptoms during inpatient rehabilitation for spinal cord injury. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
34. Krause, J., McArdle, J., Coker, J. (2008). Poster 61: Changes in somatic and nonsomatic depressive symptoms between inpatient rehabilitation and follow-up. Presented at the annual conference of the American Congress for Rehabilitation Medicine, Toronto, Ontario, October 2008.   
35. Coker, J. L., Saunders, L.L., Krause, J.S., Brotherton, S., Morrisette, D. Walking distance and spinal cord injury. Poster to be presented at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
36. Coker, J. L., Saunders, L.L., & Krause, J.S. Psychological factors affecting alcohol use after spinal cord injury. Oral presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
37. Coker, J. L., Krause, J.S., & Saunders, L.L. Vocational interests after recent spinal cord injury: Comparisons related to gender and race. Poster presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
38. Coker, J. L., Krause, J.S., Reed, K.S., & McArdle, J.J. Natural course of depressive symptoms after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
39. Coker, J. L., Krause, J.S., Saunders, L.L., & Newman, S. Posttraumatic stress disorder after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
40. Charlifue, S., Coker, J. L. Reinventing yourself – Enhancing self-efficacy skills in people with SCI. Oral presentation at the annual conference of the American Spinal Injury Association (ASIA) pre-course, Philadelphia, PA: April, 2016.

***Leslie Morse, DO***  
Craig Hospital

*(no CV uploaded)*

***Ricardo Battaglino, PhD***  
University of Colorado - Anschutz Medical Campus

*(no CV uploaded)*

**9**

**Heritability in spinal cord thickness – a twin study**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Linda Solstrand Dahlberg, PhD***  
Boston Children's Hospital, Harvard Medical School

**CV:**  
Work Experience   
Boston Children’s Hospital, Department of Anesthesia, Harvard Medical School | 02115 MA, USA   
Postdoctoral Research Fellow 2016 - Current   
  
Uppsala University, Department of Functional Pharmacology | 751 24 Uppsala, Sweden   
Research Assistant 2012-2013   
  
University of Nottingham, School of Psychology | NG7 2RD Nottingham, UK   
Research Assistant 2009   
  
Salangen Bo- og Eldresenter | 9350 Sjøvegan, Norway   
Nursing Assistant 2007   
  
List of publications:   
  
A DNA methylation site within the KLF13 gene is associated with orexigenic processes based on neural responses and ghrelin levels.   
Wiemerslage L, Islam R, van der Kamp C, Cao H, Olivo G, Ence-Eriksson F, Castillo S, Larsen AL, Bandstein M, Dahlberg LS, Perland E, Gustavsson V, Nilsson J, Vogel H, Schürmann A, Larsson EM, Rask-Andersen M, Benedict C, Schiöth HB.   
Int J Obes. 2017 Jun;41(6):990-994   
  
Adolescents newly diagnosed with eating disorders have structural differences in brain regions linked with eating disorder symptoms.   
Solstrand Dahlberg L, Wiemerslage L, Swenne I, Larsen A, Stark J, Rask-Andersen M, Salonen-Ros H, Larsson EM, Schiöth HB, Brooks SJ.   
Nord J Psychiatry. 2017 Apr;71(3):188-196. doi: 10.1080/08039488.2016.1250948   
  
Higher resting-state activity in reward-related brain circuits in obese versus normal-weight females independent of food intake.   
Hogenkamp PS, Zhou W, Dahlberg LS, Stark J, Larsen AL, Olivo G, Wiemerslage L, Larsson EM, Sundbom M, Benedict C, Schiöth HB.   
Int J Obes (Lond). 2016 Nov;40(11):1687-1692.   
  
Resting-State Brain and the FTO Obesity Risk Allele: Default Mode, Sensorimotor, and Salience Network Connectivity Underlying Different Somatosensory Integration and Reward Processing between Genotypes.   
Olivo G, Wiemerslage L, Nilsson EK, Solstrand Dahlberg L, Larsen AL, Olaya Búcaro M, Gustafsson VP, Titova OE, Bandstein M, Larsson EM, Benedict C, Brooks SJ, Schiöth HB.   
Front Hum Neurosci. 2016 Feb 17;10:52   
  
An obesity-associated risk allele within the FTO gene affects human brain activity for areas important for emotion, impulse control and reward in response to food images.   
Wiemerslage L, Nilsson EK, Solstrand Dahlberg L, Ence-Eriksson F, Castillo S, Larsen AL, Bylund SB, Hogenkamp PS, Olivo G, Bandstein M, Titova OE, Larsson EM, Benedict C, Brooks SJ, Schiöth HB.   
Eur J Neurosci. 2016 May;43(9):1173-80   
  
Obsessive-compulsivity and working memory are associated with differential prefrontal cortex and insula activation in adolescents with a recent diagnosis of an eating disorder.   
Brooks SJ, Solstrand Dahlberg L, Swenne I, Aronsson M, Zarei S, Lundberg L, Jacobsson JA, Rask-Andersen M, Salonen-Ros H, Rosling A, Larsson EM, Schiöth HB.   
Psychiatry Res. 2014 Dec 30;224(3):246-53.

**10**

**Brain White Matter Abnormality Induced by Chronic Spinal Cord Injury in the Pediatric Population: A Tract Based Spatial Statistic Study**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Laura Krisa, PhD***  
Thomas Jefferson University

**CV:**  
BIOGRAPHICAL SKETCH   
Provide the following information for the Senior/key personnel and other significant contributors.   
Follow this format for each person. DO NOT EXCEED FIVE PAGES.   
NAME: Laura Krisa   
eRA COMMONS USER NAME (credential, e.g., agency login) KRISA1   
POSITION TITLE: Assistant Professor   
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)   
INSTITUTION AND LOCATION   
DEGREE   
(if applicable)   
  
Completion Date   
MM/YYYY   
  
FIELD OF STUDY   
  
Millersville University, Millersville, PA   
B.S.   
05/04   
  
Biology   
  
Drexel University, Philadelphia, PA   
Ph.D.   
05/10   
Neuroscience   
  
  
  
  
Shriners Hospitals for Children, Philadelphia, PA   
Post-Doctoral Fellowship   
03/13   
Clinical Neuroscience   
  
  
  
  
A. Personal Statement   
I have the expertise, leadership, training and motivation necessary to successfully carry out the proposed research project. I have background is both basic and clinical neuroscience with a focus on spinal cord injury (SCI). My specific areas of training and experience include functional behavioral recovery and regenerative mechanisms in the rodent model, functional magnetic resonance imaging (fMRI) and diffusion tensor imaging (DTI) to determine the level and severity of SCI in the pediatric SCI population. I have served as a PI and Co-I on university sponsored, agency and NIH funded studies. In addition, I successfully administered two projects including study personnel, proposal planning and execution, budget, and Institutional Review Board (IRB) correspondence. I have collaborated with other researchers among several disciplines, and produced peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among study members and of developing a realistic research plan, timeline, and budget. The current application builds logically on my prior work. My experience in neuroanatomy and imaging together with a team of experts in their respective fields will allow for the success of this project and provide the normative baselines needed to help better classify the degree and severity of abnormalities in the spinal cord.   
  
B. Positions and Honors   
Positions and Employment   
  
2004-2005 Project Manager, Lancaster Laboratories, Lancaster, PA   
2010-2013 Adjunct Assistant Professor, Temple University School of Medicine, Philadelphia, PA   
2010-2013 Postdoctoral Fellow, Shriners Hospitals for Children, Philadelphia, PA   
2010- Scientific Staff, Shriners Hospital for Children, Philadelphia PA   
2013- Assistant Professor, Thomas Jefferson University, Philadelphia PA   
Other Experience and Professional Memberships   
2006- Member, Society for Neuroscience   
2011- Member, American Spinal Injury Association   
• Journal Committee Member. 2013-2015   
• Autonomic Standards Committee Member, 2014-   
• Electronic Communications Committee Chair, 2015-   
2012- Member, International Spinal Cord Society   
2014- Member, Philadelphia Chapter of the Society for Neuroscience   
C. Contribution to Science   
1. My early work addressed the fact that over 50% of SCI’s that occur in the United States involve the cervical spinal cord and impaired function of the upper extremities significantly limits an individual’s ability to carry out activities of daily living. This work focused on forelimb functional recovery in the rodent model of SCI. While there are many treatment/therapies available to treat the individual factors of SCI, it will most likely be a combination that provides the greatest degree of functional recovery. Additionally, the appropriate outcome measure to access functional recovery is as important as the appropriate treatment/therapy. This work outlines the development of a forelimb functional recovery scale in addition to demonstrating the effectiveness of using a combined approach of skilled motor training paired with a pharmacological intervention to improve forelimb functional recovery following cervical SCI. This work was the focus of my graduate dissertation.   
a. Krisa L, Murray M. The implications of injury in the developing nervous system on upper extremity function. J Hand Ther. 2015 Apr-Jun;28(2):101-4; quiz 105. Epub 2015 Jan 17. PMID: 25835256   
  
b. Singh A, Krisa L, Fredrick KL, Sandrow-Feinberg H, Balasubramanian S, Stackhouse SK, Murray M, Shumsky JS. Forelimb Locomotor Rating Scale for Behavioral Assessment of Recovery after Cervical Spinal Cord Injury. J Neurosci Methods, 2014 Apr 15;226:124-31. Epub 2014 Jan 24.   
PMCID: PMC4252014 PMCID: PMC4252014   
  
c. Houle JD., Krisa L, Murray M. Combining cell-based and pharmacologic interventions with behavioral training for chronic recovery from spinal cord injury. Traumatic Brain & Spinal Cord Injury: Challenges & Development. Ed. Cristina Morganti-Kossmann, Ramesh Raghupathi and Andrew Maas. Cambridge University Press   
  
d. Krisa, L, Frederick KL, Canver JC, Stackhouse SK, Shumsky JS, Murray M. Amphetamine Enhanced Motor Training Following Cervical Contusion Injury. J Neurotrauma. 2012 Mar;29(5):971-89 Epub 2011 Sep 19. PMID: 21651384 PMCID: PMC3303099   
  
2. During my graduate training I became aware that in order to move the basic science SCI field forward, scientist need to understand what is clinical relevant and needed. This lead to a change in my research focus from basic to clinical neuroscience where I currently study different techniques to better assess the level and degree of SCI in the pediatric population. This work includes using both advanced imaging techniques (DTI and fMRI) and the assessment of the test used to determine the level and degree of SCI, the International Standards for Neurological Classification of Spinal cord injury (ISNCSI). With a team of collaborators these studies are laying the foundational worked needed to advance the field of pediatric SCI using novel techniques.   
  
a. Saksena S, Middleton DM, Krisa L, Shah P, Faro SH, Sinko R, Gaughan J, Finsterbusch J, Mulcahey MJ, Mohamed FB. Diffusion Tensor Imaging of the Normal Cervical and Thoracic Pediatric Spinal Cord. AJNR Am J Neuroradiol. 2016 Jul 14. Epub ahead of print PMID: 27418470   
  
b. Krisa L, Middleton D, Faro S, Calhoun CL, Mohamed FB, Mulcahey MJ. Cerebral Activation during the Test of Spinal Cord Injury Severity in Children: an fMRI Methodological Study. Top Spinal Cord Inj Rehabil 2013 Spring;19(2):121-8. PMID: 23671382 PMCID: PMC3641914   
  
c. Krisa L, Mulcahey MJ, Gaughan JP, Smith B, Vogel LC. Using a Limited Number of Dermatomes as a Predictor of the 56-Dermatome Test of the International Standards for Neurological Classification of Spinal Cord Injury in the Pediatric Population. Top Spinal Cord Inj Rehabil. 2013 Sping;19(2):114-20. PMID: 23671381 PMCID:PMC3641913   
  
d. Krisa L, Gaughan J, Vogel L, Betz RR, Mulcahey MJ. Agreement of Repeated Motor and Sensory Scores at Individual Myotomes and Dermatomes in Young Persons with Spinal Cord Injury. Spinal Cord. 2013 Jan;51(1):75-81 Epub 2012 Oct 30. PMID: 23147133   
  
3. The effects of cardiovascular dysfunction on cognition following different neurological diseases and disorders in addition to the typically ageing population has become an increasingly important topic is recent years. Cardiovascular dysfunction can result in a decrease in cerebral profusion which can lead to a decrease in cognition. Following SCI, the autonomic nervous system (ANS) plays a critical role in the cardiovascular dysfunction that occurs in subjects with an injury above thoracic level 6 (T6) and thus in the decrease in cognition that can occur. I have received university funds to begin to pilot the effects SCI has on cognition in the adolescent and young adult population. This work will begin to determine the effect cardiovascular dysfunction has on cognition and therefore on quality of life.   
a. Carey A, Julian R, Kristeller K, Leonard P, Palmer S, and Krisa L. (2015) The Cardiovascular and Cerebrovascular Effects on Cognition in Persons with Parkinson’s Disease: A Systematic Review of the Literature. Advances in Parkinson's Disease, 4, 28-42.   
  
Complete list of my published work in My Bibliography   
http://www.ncbi.nlm.nih.gov/sites/myncbi/16O0r4P79rK5d/bibliography/47941437/public/?sort=date&direction=ascending   
  
D. Research Support   
Ongoing Research Support:   
260637 Krisa (PI) 10/01/2013-09/30/2017   
Craig H. Neilsen Foundation   
Validity of the Anorectal Exam in Persons with SCI: an FMRI Study   
  
The goal of this proposal is to use an established functional magnetic resonance imaging (fMRI) and Diffusion Tensor Imaging (DTI) protocol to validate the use of the anorectal examination as a test for SCI severity in children and adolescents with SCI.   
Role: PI   
  
R01 NS079635 Mohamed/Mulcahey (PI) 04/01/2013-03/30/2018   
National Institute of Health (NINDS)   
Neuroimaging Based on DTI as a Biomarker for Spinal Cord Injury in Children   
  
The purpose of this project is to establish neuroimaging criteria based on diffusion tensor imaging (DTI) for evaluating the location and severity of spinal cord injury in children and youths among four ASIA Impairment Scale (AIS) classifications (A, B, C/D and E).   
Role: Co-Investigator   
  
   
385043 Mohamed (PI) 08/31/2016-08/30/2019   
Craig H Neilsen Foundation   
Metal Artifact Characterization in Spinal Cord Injury   
  
These projects is to designed, test and optimize metal suppression magnetic resonance (MR) pulse sequences in spinal implants using in-vitro phantom models and later to evaluate these pulse sequences in spinal cord injury (SCI) patients with metal implants, and establish guidelines for reliably imaging the spinal cord under these conditions.   
Role: Co-Investigator   
  
TJU-2016-2018 Flanders (PI) 12/31/2016-12/30/2018   
Craig H. Neilsen Foundation   
Reliability Assessment of Subjective and Objective Measures of Spinal Cord Injury using the NINDS SCI MRI CDE Instrument   
  
This project will determine the inter and intra-rater reliability of the NINDS MR imaging common data elements when assessed by expert neuroradiologists, and determine the level of agreement of the DTI indices among two different MRI vendors and two field strength using the DTI parameters outlined in the imaging common data elements   
Role: Co-Investigator   
  
Completed Research Support:   
Dean Research Award Krisa (PI) 07/01/2015-06/30/2016   
Thomas Jefferson University School of Health Professionals   
Effects of Autonomic Dysfunction in Spinal Cord Injured Youth and Adolescents   
  
The goal of this proposal is to collect preliminary data to determine if there is an association between daily blood pressure values and cognitive performance in 10 adolescents and young adults with SCI.   
Role: PI

***Devon Middleton, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

***Mahdi Alizadeh, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

***Joshua Fisher, BS***  
Thomas Jefferson University

*(no CV uploaded)*

***Christina Calhoun-Thielen, MS/PT***  
Thomas Jefferson University

*(no CV uploaded)*

***MJ Mulcahey, OT, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

***Feroze Mohamed, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

**11**

**Extent and pattern of lower motor neuron damage following cervical spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Steffen Franz, MD***  
Heidelberg University Hospital

**CV:**  
Academic activities / Teaching   
Since 10/2014 Lecturer at the Spinal Cord Injury Center, Heidelberg University Hospital:   
• Focus areas:   
o Courses in neurological examination   
o Courses in physical and rehabilitative medicine, with specific   
focus on spinal cord injury care.   
o Tutor for undergraduate students attending clinical   
traineeships and internships in neurology and spinal cord   
medicine.   
Since 05/2010 Consulting physician and instructor for the official “European Multicenter   
Study about Spinal Cord Injury (EMSCI)” training course: “Neurological   
examination according to the International Standards for Neurological   
Classification in Spinal Cord Injury (ISNCSCI) of the American Spinal Injury   
Association (ASIA)”.   
Focus of research activities   
Regeneration and neuroplasticity of the central nervous system   
• Current focus:   
Functional and structural plasticity following spinal cord injury:   
contributions to chronic central neuropathic pain. (SFB1158 of the   
German Research Foundation [DFG]: https://www.sfb1158.de)   
Neurorehabilitation:   
• Neuroprosthetics   
• Functional and therapeutic electric stimulation   
• Electrode-nerve-interfaces   
Clinical and neurophysiological measurements, assessments and   
outcomes   
Board memberships, committees and society memberships:   
Since 2017 • Member of the "Education Committee" of the American Spinal Injury   
Association (ASIA)   
Since 2016 • Editorial board working on the clinical guidelines for pain after spinal   
cord injury by order of the German speaking medical society for   
paraplegia (DMGP).   
Perpetual • German Society for Neurology (DGN)   
• International Spinal Cord Society (ISCoS)   
• American Spinal Injury Association (ASIA)   
• Deutschsprachige Medizinische Gesellschaft für Paraplegiologie   
(DMGP)   
Awards   
2015 Friedrich-Wilhelm Meinecke – memorial award – of the DMGP   
Publications   
Original work, reviews and   
case reports   
Franz S, Schuld C, Wilder-Smith EP, Heutehaus L, Lang S, Gantz S,   
Schuh-Hofer S, Treede RD, Bryce TN, Wang H, Weidner N. (2017) Spinal   
Cord Injury Pain Instrument and painDETECT questionnaire: Convergent   
construct validity in individuals with Spinal Cord Injury. Eur J Pain 2017.   
Schuld C, Franz S, Bruggemann K, Heutehaus L, Weidner N, Kirshblum   
SC, Rupp R, EMSCI study group. (2016) International standards for   
neurological classification of spinal cord injury: impact of the revised   
worksheet (revision 02/13) on classification performance. The journal of   
spinal cord medicine 2016:1-9.   
Franz S, Kirshblum SC, Weidner N, Rupp R, Schuld C & on behalf of the   
EMSCI study group (2016) Motor levels in high cervical spinal cord injuries:   
Implications for the International Standards for Neurological Classification   
of Spinal Cord Injury, J Spinal Cord Med. 2016 Feb 25.   
Schuld C, Franz S, van Hedel HJ, Moosburger J, Maier D, Abel R, van de   
Meent, H., Curt, A., Weidner, N., Emsci study group, Rupp, R. et al. (2014)   
International standards for neurological classification of spinal cord injury:   
classification skills of clinicians versus computational algorithms. Spinal   
cord. 2014 Dec 9. PubMed PMID: 25487243.   
Franz S, Ciatipis M, Pfeifer K, Kierdorf B, Sandner B, Bogdahn U, Blesch   
A, Winner B, Weidner N (2014). Thoracic Rat Spinal Cord Contusion Injury   
Induces Remote Spinal Gliogenesis but Not Neurogenesis or Gliogenesis   
in the Brain. PloS one 9: e102896   
Schuld, C., Wiese, J., Franz, S., Putz, C., Stierle, I., Smoor, I., Weidner,   
N., and Rupp, R. (2013). Effect of formal training in scaling, scoring and   
classification of the International Standards for Neurological Classification   
of Spinal Cord Injury. Spinal cord 51, 282-288.   
Franz, S., Weidner, N., and Blesch, A. (2012). Gene therapy approaches   
to enhancing plasticity and regeneration after spinal cord injury.   
Experimental neurology 235, 62-69.   
Grum, F., Hufendiek, K., Franz, S., Bogdahn, U., Gamulescu, M.A.,   
Rummele, P., and Schlachetzki, F. (2010). High-resolution color-coded   
sonography in angiolymphoid hyperplasia with eosinophilia presenting as   
temporal arteritis. Circulation 121, 1045-1046.   
Anneser, J.M.H., Chahli, C., Franz, S., Borasio, G.D., Lorenzl S. (2007)   
Die Regulation entzündlicher Prozesse bei der Amyotrophen   
Lateralsklerose: Suppressor of cytokine signalling, aktiviertes STAT und   
CCAAT/enhancer-binding protein ß (c/EBP ß) Aktuelle Neurologie   
01/2007; 34.   
Book chapters Franz S., Finnerup N.B. (2017) Diagnostics and therapy of pain in spinal   
cord injury. In: Neurological Aspects of Spinal Cord Injury, ed. K. Tansey,   
R. Rupp, N. Weidner. Heidelberg: Springer.   
DOI: 10.1007/978-3-319-46293-6\_12   
Franz S., Hug A., Weidner N. (2015) Functional Recovery in CNS disease:   
Impact of animal models. In: Oxford Textbook of Neurorehabilitation, ed. V.   
Dietz, N. Ward.   
DOI:10.1093/med/9780199673711.003.0011   
Heidelberg, Germany, October 5, 2017

***Ute Eck,***   
Heidelberg University Hospital

*(no CV uploaded)*

***Marcel Wolf,***   
Heidelberg University Hospital

*(no CV uploaded)*

***Einar Wilder-Smith,***   
Heidelberg University Hospital

*(no CV uploaded)*

***Marc-André Weber,***   
Heidelberg University Hospital

*(no CV uploaded)*

***Rüdiger Rupp,***   
Heidelberg University Hospital

*(no CV uploaded)*

***Norbert Weidner,***   
Heidelberg University Hospital

*(no CV uploaded)*

**12**

**Testing the Robustness of “Promising” Neuro-Protective Drug Candidates in a Cervical Hemi-Contusion Model of Rats.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Wolfram Tetzlaff, MD, PhD***  
Icord

**CV:**  
XXXXXXYYYYYXXXXX

**13**

**Task specific spinal cord epidural stimulation enables independent stepping in motor complete humans**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Claudia Angeli, PhD***  
University of Louisville

**CV:**  
NAME: Claudia Angeli, Ph.D   
POSITION TITLE: Assistant Professor, Kentucky Spinal Cord Injury Research Center   
A. Personal Statement   
My position as the Senior Researcher of the Human Locomotion Research Center has provided me with optimal experience to manage complex clinical research projects. In my role in the Human Locomotion Research Center I have gained the experience needed in research participant recruitment, screening, enrollment, and compliance with all requirements of the FDA and local site Institutional Review Boards. I will also assist with all aspects, data acquisition, analyses and management to ensure appropriate implementation of study procedures. As senior researcher in epidural stimulation research projects, I have identified optimal configurations for training and testing and have a strong understanding of neurophysiology and the optimization of epidural stimulation for recovery of function.   
  
B. Positions and Honors   
Positions and Employment   
  
2001-2008 Coordinator, Gait and Biomechanics Laboratory, Frazier Rehab Institute, Louisville, KY   
2002-2004 Adjunct Assistant Professor. Mechanical Engineering Department. University of Louisville.   
2002- Adjunct Professor. Department of Physical Therapy, Lansing School of Nursing and Health Sciences. Bellarmine University, Louisville KY.   
2003- Clinical Assistant Professor. Division of Physical Medicine and Rehabilitation, School of Medicine. University of Louisville.   
2005- Adjunct Associate Professor. Mechanical Engineering Department. University of Louisville.   
2009- Assistant Professor. Kentucky Spinal Cord Injury Research Center. University of Louisville.   
2009- Senior Researcher, Human Locomotion Research Center, Frazier Rehab Institute, Louisville, KY   
  
Honors or Awards   
1994 Most Outstanding Senior Award - School of Health and Human Performance Physical Education and Exercise Science. East Carolina University.   
2000 All-University Excellence in Teaching Citation. Michigan State University   
  
B. Contribution to Science   
My early contributions to the field of spinal cord injury were related to the assessment of reflexes in individuals with spinal cord injury. These publications demonstrated the ability to modulate different reflexes during locomotor training in individuals that had suffered a spinal cord injury. These results provide insight on the ability of the injured change reflex activity through the interpretation of efferent information. I participated in all data collection, assisted in recruitment and data processing and interpretation.   
  
1. Knikou M, Angeli C, Ferreira C, Harkema S. Soleus H-Reflex modulation during body weight support treadmill walking in spinal cord intact and injured subjects. Exp Brain Res 2009, 193(3). 397; PMID 19011843   
2. Knikou M, Angeli C, Ferreira C, Harkema S. Flexion reflex modulation during stepping in human spinal cord injury. Exp Brain Res 2009, 196(3). 341; PMID 19468720   
3. Knikou M, Angeli C, Ferreira C, Harkema S. Soleus H-reflex gain, threshold, and amplitude as function of body posture and load in spinal cord intact and injured subjects. Int J Neurosci 2009. PMID 19863261   
  
In addition I have worked in the animal model of spinal cord injury to develop analysis tools that would aid in the translation of meaningful results from the bench to clinic.   
1. Magnuson DSK, Smith R, Brown EH, Enzmann G, Angeli C, Quesada P, Burke D, Druzhininal. Swimming as a model of task-specific locomotor re-training after spinal cord injury in the rat. NeuroRehab and Neural Repair 2009, 23(6). 535; PMID 19270266   
  
My current focus has been rehabilitation and locomotion following spinal cord injury. The animal model has demonstrated the plasticity of the spinal cord after injury and the benefits of intense activity-based training. Epidural stimulation combined with intense rehabilitation is shown to raise the excitability of the injured spinal cord to allow modulation of motor output in individuals classified with a complete spinal cord injury. These results provide an insight to the potential of the injured spinal cord and how epidural stimulation promotes voluntary control even in the absence of supraspinal input.   
  
1. Harkema S, Gerasimenko Y, Hodes J, Burdick J, Angeli C, Chen Y, Ferreira C, Willhite A, Rejc E, Grossman R, Edgerton VR. Effect of epidural stimulation of the lumbosacral spinal cord on voluntary movement, standing, and assisted stepping after motor complete paraplegia: a case study. Lancet 2011.   
2. Sayenko D, Angeli C, Harkema S, Edgerton VR, Gerasimenko Y. Neuromodulation of evoked muscle potentials induced by epidural spinal cord stimulation in paralyzed individuals. Journal of Neurophysiology 2014. 111(5):1088-99 PMID: 24335213.   
3. Angeli C, Edgerton VR, Gerasimenko Y, Harkema S. Altering spinal cord excitability enables voluntary movements after chronic complete paralysis in humans. Brain 2014. 137(Pt 5):1394-40. PMID: 24713270.   
4. Sayenko D, Atkinson D, Dy C, Gurley K, Smith V, Angeli C, Harkema S, Edgerton VR, Gerasimenko Y. Spinal segment-specific transcutaneous stimulation differentially shapes activation pattern among motor pools in humans. J Applied Physiology 2015.   
5. Rejc E, Angeli C, Harkema S. Effects of lumbosacral spinal cord epidural stimulation for standing after chronic complete paralysis in humans. PLoS One 2015.10(7):e0133998. PMID:26207623   
6. Rejc E, Angeli C, Bryant N, Harkema S. Effects of Stand and Step Training with Epidural Stimulation on Motor Function for Standing in Chronic Complete Paraplegics. J Neurotrauma 2016. Epub ahead of print. PMID:27566051   
  
C. Research Support.   
Current Research Support   
  
Agrawal (PI) Rejc (Co-PI) Harkema (Co-I) Angeli (Co-I) 2016-2021   
New York State Spinal Cord Injury Research Board   
Tethered Pelvic Assist Device (TPAD) and Epidural Stimulation for Recovery of Standing in SCI   
The main goal of this project was to determine a tethered pelvic assist device can be use to successfully train balance during standing in individuals with spinal cord injury.   
Role: Co-Investigator   
  
Helmsley Charitable Trust Harkema (PI) Angeli (Co-I) 2/15/15-12/14/18   
Helmsley Center for Restorative Medicine   
The Helmsley Center for Restorative Medicine is an interdisciplinary, collaborative program in medical research for spinal cord injury.   
  
Helmsley Charitable Trust Harkema (PI) Angeli (Co-I) 2/15/12-6/30/18   
Recovery of Function, Health and Quality of Life for People with Paralysis   
The major goal is to restore motor function and quality of life in patients with spinal cord injury using   
epidural stimulation and locomotor training therapies.   
  
Completed Research Support   
Angeli (PI) 2004-2005   
Frazier Rehab Institute Intramural Clinical Grants Program   
The effects of identification and correction of mechanical deficiencies on injury prevention in Division I athletes.   
The main goal of this project was to determine the efficacy of biomechanical evaluation of basic skills in detecting abnormal patterns leading to overuse injuries.   
Role: Principal Investigator   
Topp (PI) 2003-2004   
Multidisciplinary Grant Proposal, University of Louisville   
The effect of a multi-system rehabilitation program on functional ability and markers of rehabilitation among TKA patients.   
The main goal of this project was to determine if a TKA rehabilitation program that incorporates the coordination of multiple physiological systems results in greater perceived and actual measures of functional ability and improved markers of rehabilitation.   
Role: Co-Investigator

***Susan Harkema, PhD***  
University of Louisville

*(no CV uploaded)*

**14**

**Swimming and Cardiovascular Fitness after SCI: A Pilot Project**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Allison Kessler, MSc, MD***  
Shirley Ryan Abilitylab

**CV:**  
POSITIONS:   
2017 - Present Assistant Professor of Physical Medicine and Rehabilitation, Northwestern Feinberg School of Medicine, Chicago IL   
  
2017 - Present Attending Physician, Spinal Cord Injury Medicine, Shirley Ryan Abilitylab, Chicago IL   
  
AWARDS   
2016 First Place, RIC Resident Research Award.   
2016 Scholl Recognition Award for Rehabilitation Research, RIC.   
2014 Best Poster Award, American Congress of Rehabilitation Medicine Conference 2014.   
2013 Best Rotating Resident Award in Emergency Medicine, Northwestern Medical Center.   
2008 Subject in a Peabody Award winning documentary, Terra Incognita: The perils and Promise of Stem Cell Research.   
  
PUBLICATIONS   
Sawicki N, Brenner J, Kessler A, Tarsney P, Mukherjee D. “Ethical, Legal and Medical Challenges when a Patient Refuses a Transfer from Rehabilitation to Acute Medical Services”. PM&R 8.7 (2016): 690–697.   
PMID: 27406007   
  
Lynch M, Duffell L, Sandhu M, Srivatsan S, Deatsch K, Kessler A, Mitchell GS, Jayaraman A, and Rymer WZ. “Effect of acute intermittent hypoxia on motor function in individuals with chronic spinal cord injury following ibuprofen pretreatment: A pilot study”. J Spinal Cord Med. 9 (2016):1-9.   
PMID: 26856344   
  
Soriano R, Kessler A, Zeigler M. Wound Care. In R. Mitra (Ed), Principles of Rehabilitation Medicine. McGraw Hill Publishing Company. Forthcoming.   
  
Vernese L, Kessler A, Spendley J, McCormick K, Anschel A. Traumatic Myelopathy. In R. Mitra (Ed), Principles of Rehabilitation Medicine. McGraw Hill Publishing Company. Forthcoming.   
  
  
POSTER AND ORAL PRESENTATIONS:   
2017 Adhesive Capsulitis of the Shoulder Following A Herpes Zoster Infection in an Immunocompetent Patient. Poster accepted at the Association of Academic Physiatrists Annual Meeting, Las Vegas, NV.   
  
2016 Bone Health Assessment in Fracture Patients at an Inpatient Rehabilitation Hospital: A Quality Improvement Project. Oral presentation at the RIC Senior Resident Research Symposium.   
  
2015 Bone Health Assessment in Inpatient Rehabilitation Fracture Patients. Poster presented at the Association of Academic Physiatrists Annual Meeting, San Antonio, TX   
  
2014 Motor Function in Chronic Spinal Cord Injury After Exposure to Ibuprofen and Intermittent Hypoxia. Poster presented at the American Congress of Rehabilitation Medicine Annual Meeting, Toronto, Canada.   
  
2014 Resident On Call Pager Webpaging Use: A Quality Improvement Project. RIC Quality Improvement Presentation Day.   
  
COMMITTEES:   
National:   
2016 – Present American Spinal Injury Association.   
Rehabilitation Standards Committee. Vice Chair as of 2017.   
  
2012 – 2016 Patient Centered Outcomes Research Institute: Developing Quality Metrics from Patient-Reported Outcomes for Medical Rehabilitation.   
Research Advisory Committee Member.   
  
Institutional:   
2017 – Present Resident Wellness Committee.   
2013 – Present RIC Ethics Committee.   
2012 – Present RIC Medical Care Committee.

***Sudarshan Dayanidhi, MD, PhD***  
Shirley Ryan Abilitylab

*(no CV uploaded)*

**15**

**Case report**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***William Clifton, MD***  
Mayo Clinic Florida

**CV:**  
William Clifton MD, Curriculum Vitae   
  
FLA Neurologic Surgery   
  
Phone: 321-961-1841   
Pager: 127 or (78)3-7452   
Email: Clifton.William@mayo.edu   
  
  
Society Membership   
  
AANS, SNS   
  
  
Education   
  
Bachelor of Science in Molecular Biology and Microbiology, University of Central Florida 2007-2010   
  
Medical Doctor, University of South Florida 2010-2014   
  
  
Presentations   
  
William Clifton, MD, Sanjeet Grewal, MD, Alexa Richie, DHSc, William Freeman, MD. : Utility of a Second Cerebral Angiogram after an Initial Angiogram is Negative in Subarachnoid Hemorrhage: Worth or Waste?. Presented at AANS 83rd Annual Scientific Meeting; Washington, DC. 05/04/2015.   
  
Pirris, Stephen MD; Parsa, Kamran MD; Nottmeier, Eric MD. The Use of Intra-operative 3Dimensional Image Guidance for Revision of Failed Minimally-Invasive Sacro-Iliac Fusion. Presented at 66th SNS Annual Meeting 2015; Naples, FL. 03/28/2015.   
  
Clinical Neuroanatomy by Localization and Case Studies. Presented at 2016 Winter Clinics; Aspen, Colorado. 02/26/2016.   
  
Ben Brown, MD; Kelly Gassie,MD, David Freeman, MD. Intracranial Monitoring Clinic and Workshop. Presented at 2016 Neurotrauma and Neurocritical Care Review; Orlando, FL. 05/13/2016.   
  
Kelly Gassie, MD; Clarence Watridge, MD. Electrophysiologic Testing and the Surgical Management of Radiculopathy: Applications and Evidence. Presented at Southern Neurosurgery Society Annual Meeting; San Antonio, TX. 03/03/2016.   
  
Kelly Gassie, MD; Sanjeet Grewal, MD; avid Freeman, MD. Is seizure prophylaxis indicated in aneurysmal subarachoid hemorrhage?. Presented at AANS; Chicago, IL. 05/02/2016.   
  
Kelly Gassie, MD; Dan Myers, MD; Sanjeet Grewal, MD; David Freeman, MD. Is seizure prophylaxis indicated in benign perimesencephalic subarachnoid hemorrhage?. Presented at AANS; Chicago,IL. 05/03/2016.   
  
Wharen, R. Nervus Intermedius Neuralgia: A Single Institution Case Series. Presented at 68th Annual Southern Neurosurgical Society; Orlando, FL. 02/24/2017.   
  
Ben Brown, MD; Olu Akinduro, MD. Intracranial Monitoring Workshop. Presented at Neurocritical Care Review and Workshops 2017; Orlando, FL. 05/05/2017.   
  
Neuroanatomy and Localization by Case Studies. Presented at Neurocritical Care Review and Workshops; Orlando, FL. 05/06/2017.   
  
  
Honors & Awards   
  
Distinguished Speaker   
Awarded 10/10/2014   
Guest speaker at the University of Central Florida Motivational speech to undergraduate students applying for graduate school   
  
Distinguished Speaker   
Awarded 10/9/15   
Guest speaker at the University of Central Florida Motivational speech to undergraduate students applying for graduate school   
  
Administrative Chief Resident   
Awarded   
Administrative Chief Resident from 1/01/17-3/31/17. Duties included resident call scheduling, OR coverage scheduling, organizing departmental teaching and working conferences.   
  
  
Publications   
  
Higgins DM, Mallory GW, Planchard R, Puffer R, Ali M, Gates M, Clifton W, Jacob JT, Curry T, Kor D, Fogelson JL, Krauss WE, Clarke MJ. Understanding the Impact of Obesity on Short-Term Outcomes and In-Hospital Costs After Instrumented Spinal Fusion. Neurosurgery. 2015; Epub ahead of print : Epub ahead of print.   
  
Puffer RC, Clifton WE, Mallory GW, Clarke MJ. Delayed cervical palsy following cervical spine fusion leads to an increase in hospital-related costs. J Neurosurg Spine. 2015; 22 (11) : 4.   
  
Eichstaedt KE, Clifton WE, Vale FL, Benbadis SR, Bozorg AM, Rodgers-Neame NT, Schoenberg MR. Sensitivity of Green's Word Memory Test genuine memory impairment profile to temporal pathology: a study in patients with temporal lobe epilepsy. Clinical Neuropsychology. 201; 28 (6) : 941-953.   
  
Clifton, WE; Vibhute, P; Peterson, JJ. Imaging and Pathology of the Spine. In: Berquist, Thomas; Peterson, Jeffrey. Berquist's Musculoskeletal Imaging Companion. MI: Lippincott Williams and Wilkins; 2017: TBD.   
  
Schoenberg PhD, MR; Clifton MD, WE; Sever MA, RW; Vale MD, FL. Neuropsychology Outcomes Following Trephine Epilepsy Surgey: The Inferior Temporal Gyrus Approach for Amygdalohippocampectomy in Medically Refractory Mesial Temporal Lobe Epilepsy. Neurosurgery. 2017; 80 (6) : 1-10.   
  
Clifton MD, WE; Gupta MD, V; Hauck MD, Bryson. Postoperative Imaging on Intrinsic Brain tumors. In: Chaichana, KL; Quinones-Hinojosa; A. Comprehensive Overview of Modern Surgical Approaches to Intrinsic Neoplasms. NY: Elsevier; 2018: TBD.   
  
Clifton, WE; Reimer, RR. Metastatic Brain Tumors. In: Chaichana, KL; Quinones-Hinojosa, A. Comprehensive Overview of Modern Surgical Approaches to Intrinsic Neoplasms. NY: Elsevier; 2018: TBD.   
  
Clifton, WE; Pichelmann, MA. Unstable Spine Fractures. In: Wijdicks, EFM; Freeman, WD; Rabenstein, AA; Findlay, J; Diaz-Gomez, J; Sen, A. Mayo Clinic Neurocritical Care and Intensive Care Board Review. NY: Oxford University Press; 2019: TBD.   
  
Clifton, WE; Lopez-Chiriboga, S; Akinduro, O; Whitaker, DA; Reimer, RR. Infection or Glioma? The False Dilemma of Primary CNS Histiocytic Sarcoma. World Neurosurgery. 2017; TBD (TBD) : TBD.   
  
Clifton, WE; Gupta, V; Prause, C; Vibhute, P. Cervical Spine Osteomyelitis in Head and Neck Cancer Patients: Looking Twice for Posterior Hypopharyngeal Dehiscence. Radiology of Infectious Disease. 2017; TBD (TBD) : TBD.   
  
Rabih Tawk, Robert Wharen, Nnenna Mbabuike, Karim ReFaey, William Clifton, Benjamin Brown, Jang Yoon, Alfredo Quinones-Hinojosa. Microsphere Embolization of Hypervascular Posterior Fossa Tumors: A Technical Note and Case Series. Journal of Neurointerventional Radiology. 2017; TBD (TBD) : TBD.

***Daryoush Tavanaiepour, MD***  
Uf Health Jacksonville

*(no CV uploaded)*

***Gazanfar Rahmathulla, MD***  
Uf Health Jacksonville

*(no CV uploaded)*

**16**

**Inspiratory Muscle Training in Individuals with Spinal Cord Injuries**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Martha Sliwinski, PT, PhD, MA***  
Columbia University Medical Center

**CV:**  
Martha Sliwinski   
Associate Professor of Rehabilitation and Regenerative Medicine at Columbia University, Program in Physical Therapy   
  
A. Personal Statement.   
My research focus is centered to individuals who have suffered a spinal cord injury. These individuals are in an advanced aging process in comparison to the normal population as well hospital readmission and challenges with quality of life. I am interested in pursuing interventions, particularly that have promise to prevent wellness decline in this population and to improve their quality of life. Collaborating with other researchers who have an interest in these same principles provides promise for this population. My collaboration with community partners and centers serving this population has been an ongoing part of my research. My role as a practitioner for 37 years and an educator for 23 years in the field of physical therapy provides me with the knowledge and experience to support research initiatives with this population. Serving as an editor and chapter author for the text book Spinal Cord Injuries: Management and Rehabilitation provided me with the additional tools to have a broad knowledge for the comprehensive care and life challenges for individuals with a spinal cord injury.   
  
B. Positions and Honors.   
  
Positions and Employment   
  
8/79-3/82: Staff Physical Therapist Kessler Institute for Rehabilitation, NJ   
9/82-5/83: Senior Physical Therapist Brain Injury Unit Kessler Institute for Rehabilitation, NJ   
5/83-10/85: Assistant Director of Clinical Education Kessler Institute for Rehabilitation, NJ   
10/85-12/85: Assistant Direct of Inpatient Spinal Cord Injury Kessler Institute for Rehabilitation, NJ   
9/85-5/87: Adjunct Lecturer Physical Therapy University of Medicine and Dentistry, NJ   
4/86-9/86: Assistant Director of Clinical Education Kessler Institute for Rehabilitation, NJ   
9/86-8/87: Assistant Direct of Inpatient Spinal Cord Injury Kessler Institute for Rehabilitation, NJ   
7/88-8/09: Consultant & Per Diem Physical Therapist Kessler Institute for Rehabilitation, NJ   
4/88-9/91: Per Diem Physical Therapist Semmel Center for Physical Therapy, NJ   
1/91-12/92: Adjunct Lecturer Physical Therapy Hunter College, NY   
1/93-5/93: Guest Lecturer Physical Therapy New York University, NY   
9/03-12/03: Guest Lecturer Physical Therapy New York University, NY   
1/93-8/02: Lecturer Physical Therapy Hunter College, NY   
5/02-1/08: Research Consultant Kessler Medical Research Rehabil. & Ed. Corp., NJ   
9/02-8/04: Assistant Professor Physical Therapy Hunter College, NY   
4/04-1/12: Per Diem Physical Therapist Mountainside Hospital, NJ   
9/04-12/12: Adjunct Assistant Professor Physical Therapy Hunter College, NY   
9/04-12/15: Assistant Professor of Rehabilitation and Regenerative Medicine, Columbia Univ., NY   
01/11-date: Physical Therapist Clinical Appointment Columbia University Med. Center, NY   
04/12-date: Per Diem Physical Therapist Responsive Physical Therapy, NJ   
1/15-date: Associate Professor of Rehabilitation and Regenerative Medicine, Columbia Univ., NY   
  
Honors and Awards:   
Columbia Student Medical Outreach (CoSMO) Outstanding Service Award 2016   
Columbia University College of Physicians & Surgeons Award of Excellence, Community Service (Nominee) 2013   
Gladys Pearlstein Award Montgomery County Community College 1977   
  
Selected peer-reviewed publications   
1. Sliwinski MM, Smith R, Wood A. Spinal cord injury rehabilitation patient and physical ther pist perspective: a pilot study. Spinal Cord Series and Cases. 2016;3:15036; doi:10.1038/scsandc.2015.36   
2. Gómara-Toldrà N, Sliwinski M M, Dijkers M P. Physical therapy for spinal cord injury: A systematic review of treatments focusing on participation. Journal of Spinal Cord Medicine. 2014;37(4):371-379.   
3. Cortese A, Horr K, Krautle E, Lieberg J, Scibelli NP, Sliwinski MM. The use of virtual reality to improve gait function in stroke patients. Journal of student Physical Therapy Research. 2012; 5(2): 33-43.   
4. \*Macht Sliwinski M, Sisto S. Gait, Quality of Life and Their Association Following Total Hip Arthroplasty. Journal of Geriatric Physical Therapy. 2006;29(1): 8-15.   
5. \*Macht Sliwinski M, Sisto S, Batavia M, Chen B, Forrest G F. Dynamic stability during walking following unilateral total hip arthroplasty. Gait & Posture. 2004;19(2):141-147.   
6. \*Macht Sliwinski M, Schultze K, Lyons Hansen R, Malta S, Babyar SR . Clinical Performance Expectations: A Comparison of Students, Clinical Instructors and Academic Faculty. Journal of Physical Therapy Education. 2004; 18(1):50-57.   
7. Babyar SR, Rosen, E, Sliwinski M, Krasilovsky G, Holland, T, Lipovac, M. Physical Therapy Student’s Self Reports of Development of Clinical Reasoning: A Survey. Journal of Allied Health Education . 2003;32(4):227-239.   
8. Babyar SR, Sliwinski M, Krasilovsk;y G, Rosen E, Thornby M, and Masefield JR. Survey of Inclusion of Cultural and Gender Issues in Entry- Level Physical Therapy Curriculum in New York State. Journal of Physical Therapy Education. 1996;10(2):53-62.

***Sarah Boak, Student Physical Therapist***  
Columbia University

*(no CV uploaded)*

***Aubrey Courville, Student Physical Therapist***  
Columbia University

*(no CV uploaded)*

***Michelle Dearwater, Student Physical Therapist***  
Columbia University

*(no CV uploaded)*

***Sneha Radhakrishnan, Student Physical Therapist***  
Columbia University

*(no CV uploaded)*

***Jessica Leathem, DPT***  
John F. Kennedy Medical Center

*(no CV uploaded)*

**17**

**Characterization of Volitional Electromyographic Signals in the Lower Extremity after Motor Complete Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Elizabeth Heald,***   
Case Western Reserve Univsity

**CV:**  
A. Personal Statement   
My current position is as a graduate student research assistant at Case Western Reserve University (CWRU), where I am pursuing the Neural Engineering track of the Biomedical Engineering Ph.D. Program. I have completed all my coursework in this program, and am able to fully devote my time to research. The goal of my research is to improve the control of neuroprosthetic devices used by SCI patients, resulting in better outcomes and improved independence and quality of life for those persons. By choosing CWRU for my training, I am positioned in an environment where the expertise and collaboration necessary to perform this research is possible. I work as part of an interdisciplinary team of doctors, therapists, engineers, technicians, and patients who all have one overarching goal: the clinical deployment of restorative technologies that will impact and improve the lives of people with spinal cord injuries.   
  
I have performed screening sessions with motor complete SCI patients, using surface electromyography (EMG) to look for volitional myoelectric activity in their lower extremities. We have collected this data form a total of 24 subjects, and I have developed new data processing protocols in order to quickly identify muscles with sufficient activity to be of interest. This work has been done to better understand the extent of the phenomenon of below-injury activity from spared pathways in the SCI population, and to provide a detailed characterization of the obtained signals to categorize them according to their usefulness for neuroprosthetic control. I have authored a publication based on this work, which was recently published the Journal of Neural Rehabilitation and Neural Repair.   
  
I have significant experience in signal processing, data analysis, and programing user interfaces in the languages of LabVIEW and MATLAB, all of which are skills necessary to implement the work described in this proposal. In addition to my expertise in EMG signal collection and processing, my previous research experiences as an undergraduate will also prove useful in this project. I have experience in an ergonomics lab, researching human factors and device usability, which will be beneficial to evaluate the impact on the user when implementing novel forms of neuroprosthetic control.   
  
Please note that I have previously published/presented under my maiden name, Elizabeth Thrailkill.   
  
B. Positions and Honors   
Honors:   
2013 – 2016 NSF Graduate Research Fellowship   
2012 – 2013 T32 Integrated Engineering and Rehabilitation Training Grant   
2007 – 2011 National Merit Scholar   
2007 – 2011 Robert C. Byrd Honors Scholarship   
  
Positions:   
08/2012 – Present   
Graduate Research Assistant – CWRU Biomedical Engineering, Functional Electrical Stimulation Center   
Cleveland, OH Led by Dr. Hunter Peckham, Department of Biomedical Engineering   
  
07/2010 – 07/2012   
Undergraduate Research Assistant – UNL Innovative Design and Ergonomic Analysis Lab   
Lincoln, NE Led by Dr. Susan Hallbeck, Department of Mechanical and Materials Engineering   
  
06/2009 – 08/2009   
Summer Internship in Neural Engineering REU – Rehabilitation Inst. of Chicago, Northwestern University   
Chicago, IL Led by Dr. Jim Patton, Sensory Motor Performance Program   
  
01/2009 – 12/2009   
Undergraduate Research Assistant – Madonna Rehabilitation Hospital   
Lincoln, NE Led by Dr. Judith Burnfield, Research Inst. for Rehabilitation Science and Engineering   
  
C. Scientific Contributions   
Publications:   
Heald EA, Hart RL, Kilgore KL, Peckham, PH. Characterization of Volitional Electromyographic Signals In the Lower Extremity after Motor Complete SCI. Journal of Neural Rehabilitation and Neural Repair. 2017; 31(6):583-591.   
  
Lowndes BR, Heald EA., Hallbeck, MS. Ergonomics and comfort in lawn mower handle positioning: An evaluation of nontraditional handle geometry. Applied Ergonomics. 2015; 51:1-8.   
  
Riggle JD, Wadman MC, McCrory B, Lowndes, BR, Heald EA, Carstens PK, Hallbeck MS. Task analysis method for procedural training curriculum development. Perspectives on Medical Education. 2014; 3(3):204-218.   
  
Thrailkill EA, Lowndes BR, Hallbeck, MS. Vibration analysis of the sulky accessory for a professional walk-behind lawn mower to determine operator comfort and health. Ergonomics. 2012; 56(1):115-125.   
  
Lowndes BR, Thrailkill EA, Hallbeck MS. Hand actuation strength: A preliminary evaluation of physical demand in a nontraditional lawn mowing control system. Proceedings of the Human Factors and Ergonomics Society. 2012: 1932-1936.   
  
Selected Presentations:   
Heald EA, Hart RL, Kilgore KL, Peckham, PH. Volitional myoelectric activity in the lower extremity of human subjects with chronic motor complete spinal cord injury. Oral Presentation at Society for Neuroscience Annual Meeting, San Diego, CA, November 15, 2016.   
  
Heald EA, Hart RL, Kilgore KL, Peckham PH. Volitional Electromyographic Signals in Lower Extremity after Motor Complete SCI: A Potential Neuroprosthetic Control Source. Poster presented at the Neural Interfaces Conference, Baltimore, MD, June 28, 2016.   
  
Thrailkill EA, Riggle JD, Wadman MC, McCrory B, Lowndes, BR, Carstens PK, Hallbeck MS. Developing a Standardized CVC Procedure for Training to Reduce Complications. Poster presented at the Biomedical Engineering Society Annual Meeting, Hartford, CT, October 15, 2011.   
  
Thrailkill EA, Huang FC, Patton JL, Mussa-Ivaldi FA. Learning Patterns in Virtual Reality Laparoscopy Training. Poster presented at Summer Internship in Neural Engineering REU Presentations, Rehabilitation Institute of Chicago, August 20, 2009.   
  
  
D. Research Support   
Ongoing   
  
Project #:477004 PI: Hunter Peckham Funding Agency: Neilsen Foundation   
Grant Title: “Training of Activity of Muscles Below the Injury Level in Complete SCI for Neuroprosthetic Control” Grant Dates: 7/1/17- 6/30/2020 Role: Graduate Student   
  
Previous   
  
06/2016 – 07/2017 T32 Integrated Engineering and Rehabilitation Training Grant (5T32EB004314-17)   
$22,920/year Stipend plus Full Tuition Support   
  
06/2013 – 05/2016 NSF Graduate Research Fellowship   
$32,000/year Stipend plus $12,000/year Tuition Support   
  
08/2012 – 05/2016 T32 Integrated Engineering and Rehabilitation Training Grant (5T32EB004314-17)   
$22,032/year Stipend plus Full Tuition Support

***Ronald Hart, MS***  
Louis Stokes Veterans Affairs Medical Center

*(no CV uploaded)*

***Kevin Kilgore, PhD***  
Case Western Reserve Univsity

*(no CV uploaded)*

***P. Hunter Peckham, PhD***  
Case Western Reserve Univsity

*(no CV uploaded)*

**18**

**Understanding and Preventing Loss to Follow-up: Experiences from the Spinal Cord Injury Model Systems**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Hwasoon Kim, PhD***  
Duke Clinical Research Institute

*(no CV uploaded)*

***Gary Cutter, PhD***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Brandon George, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

***Yuying Chen, MD, PhD***  
University of Alabama at Birmingham

**CV:**  
NAME: Chen, Yuying   
A. Personal Statement   
I am a board-certified physiatrist from Taiwan and also an epidemiologist by training with extensive experiences in database management, research methodology, and statistical analysis. With the unique blend of medical and research training and my passion for spinal cord injury (SCI), I have devoted my research to understanding the nature course of SCI by analyzing data from large datasets and through application of advanced methodology. My secondary research interests are to identify risk and risk factors for obesity after SCI and to develop sustainable intervention for this population. My research has been continuously funded through the NIDILRR, NIH, Paralyzed Veterans of America, and industries over the last 2 decades. I have also gained international recognition for my research involving epidemiology, mortality, and secondary conditions after SCI. I currently serves on the Editorial Board of the Topics in Spinal Cord Injury Rehabilitation and chairs the American Congress of Rehabilitation Medicine SCI Interdisciplinary Special Interest Group and the Sociodemographic data set of the International SCI Data Sets Committee. I am also a member of the Oversight Committee of the NINDS SCI Common Data Elements, International Spinal Cord Society Prevention Committee, as well as American Spinal Injury Association Research and Prevention Committees. I have continuously provided consultation and technical assistance to investigators in the US and outside US who are interested in analyzing the SCI Model Systems National Database for research. In addition to research, I teach in the UAB School of Public Health and have served as a mentor/preceptor in various capacities for students, resident physicians, and visiting scholars.   
  
a) Chen Y, DeVivo MJ. Richards JS, SanAgustin TB. Spinal Cord Injury Model Systems: Review of Program and National Database from 1970 to 2015. Arch Phys Med Rehabil 2016;97(10):1797-1804.   
b) Chen Y, He Y, DeVivo MJ. Changing demographics and injury profile of new traumatic spinal cord injuries in the United States, 1972-2014. Arch Phys Med Rehabil. 2016;97(10):1610-1619.   
c) Chen Y, Heinemann AW. Current research outcomes from the spinal cord injury model systems. Arch Phys Med Rehabil 2016;97(10):1607-1609.   
d) Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders A, Jakeman L, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke Project. Spinal Cord 2015;53:265-277.   
  
B. Positions and Honors   
Positions and Employment   
2000-01 Associate, Department of Physical Medicine & Rehabilitation (PM&R), UAB, Birmingham, AL   
2001-02 Instructor, Department of PM&R, UAB, Birmingham, AL   
2002-08 Assistant Professor, Department of PM&R, UAB, Birmingham, AL   
2005- Director, National Spinal Cord Injury Statistical Center, Birmingham, AL   
2007- Assistant Professor, Department of Epidemiology, UAB, Birmingham, AL   
2008-2012 Associate Professor, Department of PM&R, UAB, Birmingham, AL   
2012-2017 Associate Professor, tenured, Department of PM&R, UAB, Birmingham, AL   
2017- Professor, tenured, Department of PM&R, UAB, Birmingham, AL   
  
Awards and Honors (last 5 years)   
2017 Third place, best poster award, 2017 Annual Meeting of American Spinal Injury Association   
2017 Finalist, Best Research Paper Award, National Association of Rehabilitation Research and Training Centers   
2016 Outstanding Alumnus Award, Chung Shan Medical University, Taichung, Taiwan   
2016 Finalist, best poster award, 2016 Annual Meeting of American Spinal Injury Association   
2013 Runner-up, Best Research Paper Award, National Association of Rehabilitation Research and Training Centers   
2013 Finalist, best platform presentation award, 2013 Annual Meeting of International Spinal Cord Society   
2013 Best neurological rehabilitation research podium presentation, 2013 Annual Assembly of the American Academy of Physical Medicine and Rehabilitation   
2013 Finalist, best poster award, 2013 Annual Meeting of American Spinal Injury Association   
2012 Finalist, best platform presentation award, 2012 Annual Meeting of International Spinal Cord Society   
2012 Finalist, best platform presentation award, 2012 Annual Meeting of American Spinal Injury Association   
  
Other Experience   
2003- Editorial Board, Taiwan Journal of Physical Medicine and Rehabilitation   
2006- Advisory Board, TBI Model Systems National Data and Statistical Center   
2006-10 Chair, Analytic Standardization Task Force, International SCI Data Sets   
2008-13 Editorial Committee, World Health Organization report “International Perspective on SCI”   
2008-11 Editor, Special Issue “Current SCI Model System Research Outcomes,” Arch Phys Med Rehab, 2011;92   
2008-11 Editor, special issue “Economic Impact of SCI”, Topics in SCI Rehab, 2011;16(4)   
2011- National Advisory Committee, Model Systems Knowledge Translation Center, Washington, DC   
2011, 2013, 2015 Reviewer, NIDILRR, US Department of Health and Human Services   
2012, 2013 Reviewer, Alessandro Liberati Programme for Young Investigators, Emilia-Romagna Regional Health Authority and the regional Universities, Italy   
2013-15 Chair, NINDS SCI-CDEs: Demographics Work Group   
2013- Editorial Board, Topics in SCI Rehabilitation   
2013- Member, Executive Committee, “Setting up SCI Database amongst selected Asian Spinal Cord Network members” Task Force, International Spinal Cord Society   
2014, 2015 Reviewer, Paralyzed Veterans of America Research Foundation   
2014- Member, International SCI Data Sets   
2015- Member, Oversight Committee, NINDS SCI-CDEs   
2015- Chair, SCI-Interdisciplinary Special Interest Group, American Congress of Rehabilitation Medicine   
2015, 2016 Reviewer, Conquer Paralysis Now Challenge Stage I Grants, Sam Schmidt Paralysis Foundation   
  
Professional Memberships   
Taiwan Academy of Physical Medicine and Rehabilitation (1990-), American Public Health Association (1994-), Society for Epidemiologic Research (1997- 2013), American Academy of Physical Medicine and Rehabilitation (1998-2005), International Spinal Cord Society (2002-), American Spinal Injury Association (2002-), American Congress of Rehabilitation Medicine (2006-)   
  
C. Contribution to Science   
  
1. My primary research interest is to apply modern epidemiologic and statistical methodology in studies of long-term outcomes after SCI. When I first analyzed data from the National SCI Database for my dissertation research in 1997, there were numerous publications based on this database, but virtually none of them used longitudinal approach, although the National SCI Database contained 78,627 follow-up records up to 25 years post-injury at that time. As a result, clinical utility of those database research is limited. Modern epidemiologic methodology has been applied in my research in various areas, including case definition, selection of controls (i.e., incident density sampling), and study design (i.e., retrospective dynamic cohort, nested case-control, matched case-control, and person-time approach). Longitudinal statistical techniques have also been utilized, including, but not limited to, Generalized Estimation Equation (GEE), Hierarchical Linear Model (HLE), Random Effects Model, Poisson regression analysis, time-to-event approach, Transition model, and Difference model analysis.   
a) Chen YY, DeVivo MJ, Jackson AB. Pressure ulcer prevalence in people with spinal cord injury: age-period-duration effects. Arch Phys Med Rehabil 2005;86:1208-1213.   
b) Chen Y, Anderson CJ, Vogel LC, Chlan KM, Betz RR, McDonald CM. Change in life satisfaction of adults with pediatric-onset spinal cord injury. Arch Phys Med Rehabil 2008;89:2285-2292.   
c) Qu H, Shewchuk RM, Chen Y, Richards JS. Evaluating the quality of acute rehabilitation care for patients with spinal cord injury: an extended Donabedian model. Q Manage Health Care 2010;19(1):47–61.   
d) Pretz CR, Kozlowski AJ, Charlifue S, Chen Y, Heinemann AW. Using rasch motor FIM individual growth curves to inform clinical decisions for persons with paraplegia. Spinal Cord 2014;52:671-676.   
  
2. Because of my deeply involvement with the National SCI Statistical Center project over the last 20 years, I am very much committed to promote rigorous SCI research using data from existing large datasets. There have been large amounts of health-related information that are collected and archived by federal and non-federal agencies for administrative or research purpose. Advances related to statistical methods, bioinformatics, information technology and the internet have permitted the creation of high quality databases, easier access to aggregated information, and consequently provided an unprecedentedly great opportunity for research using data from large datasets. I have innovatively linked data from several large datasets for studying environmental and community factors in relation to physical and psychosocial wellbeing of persons with SCI. At some occasions, I conducted medical chart reviews and telephone interviews to obtain further information to supplement information in the database, in attempt to address research questions in a comprehensive and in-depth manner.   
a) Chen YY, Roseman JM, DeVivo MJ, Huang CT. Geographic variation and environmental risk factors for the incidence of initial kidney stones in patients with spinal cord injury. J Urol 2000;164:21-26.   
b) Chen Y, Roseman JM, Funkhouser E, DeVivo MJ. Urine specific gravity and water hardness in relation to urolithiasis in persons with spinal cord injury. Spinal Cord 2001;39:571-576.   
c) Botticello A, Chen Y, Cao Y, Tulsky DS. Do communities matter after rehabilitation? The effect of socioeconomic and urban stratification on well-being after spinal cord injury. Arch Phys Med Rehabil 2011;92:464-471.   
d) Botticello A, Chen Y, Tulsky DS. Geographic variation in participation for physically disabled adults: The contribution of area economic factors to employment after spinal cord injury. Soc Sci Med 2012;75;1505-1513.   
  
3. Among a long list of secondary health conditions after SCI, I am particularly interested in the risk and risk factors for obesity as well as development of weight management program for persons with SCI. Despite widespread concern about obesity in persons with disability, there was virtually not any interventional research ever conducted in the SCI population in 2000, and we had very limited knowledge of the health benefits of weight loss in the SCI population or the potential adverse effects on compromising lean body mass and nutritional status among these individuals, which could negatively impact their already-elevated risk of various medical complications. I have designed and conducted a series of research initiatives, funded by now NIDILRR, NIH, and Paralyzed Veterans of America-Research Foundation, to address this obesity issue in persons with SCI.   
a) Chen Y, Henson S, Jackson AB, Richards JS. Obesity intervention in persons with spinal cord injury. Spinal Cord 2006;44:82–91.   
b) Chen Y, Cao Y, Klebine P, Hubbert KA, Mark VW. Home-based intervention on weight control of persons with spinal cord injury. J Spinal Cord Med 2009;32(4):485.   
c) Chen Y, Cao Y, Allen V, Richards JS. Weight matters: physical and psychosocial well being of persons with spinal cord injury in relation to body mass index. Arch Phys Med Rehabil 2011;92:391-398.   
d) Yarar-Fisher C, Chen Y. Jackson A, Hunter G. Body mass index underestimates adiposity in women with spinal cord injury [corresponding author]. Obesity 2013;21:1223-1225.   
  
4. Because of my public health background and realization that the prevention is the best solution for all physical, psychological, and economic consequences of SCI, I have been lately involved in various prevention initiatives through the participation in the Prevention Committees of the American Spinal Injury Association and the International Spinal Cord Society. I have presented in prevention symposia and published SCI statistics and trends to help inform the public and develop effective prevention strategies.   
a) DeVivo MJ, Chen Y. Trends in new injuries, prevalent cases, and aging with spinal cord injury. Arch Phys Med Rehabil 2011;92:332-338. [corresponding author].   
b) DeVivo MJ, Chen Y. Mennemeyer ST, Deutsch A. Costs of care following spinal cord injury. Top Spinal Cord Inj Rehabil 2011;16(4):1-9. [corresponding author].   
c) Chen Y, Tang Y, Vogel L, DeVivo MJ. Causes of spinal cord injury. Top Spinal Cord Inj Rehabil 2013;19:1-8.   
d) Chen Y, Tang Y, Allen V, DeVivo MJ. Aging and spinal cord injury: External causes of injury and implications for prevention. Top Spinal Cord Inj Rehab 2015;21(3):218-226.   
  
  
D. Research Support   
Ongoing Research Support   
MIC-WC-001, Oculus Innovative Sciences, Inc Chen (PI) 2/1/13 – 09/30/17   
A Six Month Randomized Open-Label Trial of Pressure Ulcer Healing with Microcyn® Skin and Wound Care with Preservatives Versus Sterile Saline in Adult Spinal Cord Injury Subjects   
To compare healing progress of pressure ulcers over 6 months in patients with at least one Stage III or IV pressure ulcer in subjects treated with Microcyn versus sterile saline.   
Role: PI   
  
90DP0083, NIDILRR Chen (PI) 10/1/16 – 9/30/21   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI   
  
Completed Research Support (recent 5 years)   
90DP0011, NIDILRR Chen (PI) 10/1/11 – 9/30/16   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI   
  
H133A060039, NIDRR/Department of Education Chen (PI) 10/1/06 – 9/30/11   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI

**19**

**Missing data in spinal cord injury survey research: racial differences**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Yuying Chen, MD, PhD***  
University of Alabama at Birmingham

**CV:**  
NAME: Chen, Yuying   
A. Personal Statement   
I am a board-certified physiatrist from Taiwan and also an epidemiologist by training with extensive experiences in database management, research methodology, and statistical analysis. With the unique blend of medical and research training and my passion for spinal cord injury (SCI), I have devoted my research to understanding the nature course of SCI by analyzing data from large datasets and through application of advanced methodology. My secondary research interests are to identify risk and risk factors for obesity after SCI and to develop sustainable intervention for this population. My research has been continuously funded through the NIDILRR, NIH, Paralyzed Veterans of America, and industries over the last 2 decades. I have also gained international recognition for my research involving epidemiology, mortality, and secondary conditions after SCI. I currently serves on the Editorial Board of the Topics in Spinal Cord Injury Rehabilitation and chairs the American Congress of Rehabilitation Medicine SCI Interdisciplinary Special Interest Group and the Sociodemographic data set of the International SCI Data Sets Committee. I am also a member of the Oversight Committee of the NINDS SCI Common Data Elements, International Spinal Cord Society Prevention Committee, as well as American Spinal Injury Association Research and Prevention Committees. I have continuously provided consultation and technical assistance to investigators in the US and outside US who are interested in analyzing the SCI Model Systems National Database for research. In addition to research, I teach in the UAB School of Public Health and have served as a mentor/preceptor in various capacities for students, resident physicians, and visiting scholars.   
  
a) Chen Y, DeVivo MJ. Richards JS, SanAgustin TB. Spinal Cord Injury Model Systems: Review of Program and National Database from 1970 to 2015. Arch Phys Med Rehabil 2016;97(10):1797-1804.   
b) Chen Y, He Y, DeVivo MJ. Changing demographics and injury profile of new traumatic spinal cord injuries in the United States, 1972-2014. Arch Phys Med Rehabil. 2016;97(10):1610-1619.   
c) Chen Y, Heinemann AW. Current research outcomes from the spinal cord injury model systems. Arch Phys Med Rehabil 2016;97(10):1607-1609.   
d) Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders A, Jakeman L, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke Project. Spinal Cord 2015;53:265-277.   
  
B. Positions and Honors   
Positions and Employment   
2000-01 Associate, Department of Physical Medicine & Rehabilitation (PM&R), UAB, Birmingham, AL   
2001-02 Instructor, Department of PM&R, UAB, Birmingham, AL   
2002-08 Assistant Professor, Department of PM&R, UAB, Birmingham, AL   
2005- Director, National Spinal Cord Injury Statistical Center, Birmingham, AL   
2007- Assistant Professor, Department of Epidemiology, UAB, Birmingham, AL   
2008-2012 Associate Professor, Department of PM&R, UAB, Birmingham, AL   
2012-2017 Associate Professor, tenured, Department of PM&R, UAB, Birmingham, AL   
2017- Professor, tenured, Department of PM&R, UAB, Birmingham, AL   
  
Awards and Honors (last 5 years)   
2017 Third place, best poster award, 2017 Annual Meeting of American Spinal Injury Association   
2017 Finalist, Best Research Paper Award, National Association of Rehabilitation Research and Training Centers   
2016 Outstanding Alumnus Award, Chung Shan Medical University, Taichung, Taiwan   
2016 Finalist, best poster award, 2016 Annual Meeting of American Spinal Injury Association   
2013 Runner-up, Best Research Paper Award, National Association of Rehabilitation Research and Training Centers   
2013 Finalist, best platform presentation award, 2013 Annual Meeting of International Spinal Cord Society   
2013 Best neurological rehabilitation research podium presentation, 2013 Annual Assembly of the American Academy of Physical Medicine and Rehabilitation   
2013 Finalist, best poster award, 2013 Annual Meeting of American Spinal Injury Association   
2012 Finalist, best platform presentation award, 2012 Annual Meeting of International Spinal Cord Society   
2012 Finalist, best platform presentation award, 2012 Annual Meeting of American Spinal Injury Association   
  
Other Experience   
2003- Editorial Board, Taiwan Journal of Physical Medicine and Rehabilitation   
2006- Advisory Board, TBI Model Systems National Data and Statistical Center   
2006-10 Chair, Analytic Standardization Task Force, International SCI Data Sets   
2008-13 Editorial Committee, World Health Organization report “International Perspective on SCI”   
2008-11 Editor, Special Issue “Current SCI Model System Research Outcomes,” Arch Phys Med Rehab, 2011;92   
2008-11 Editor, special issue “Economic Impact of SCI”, Topics in SCI Rehab, 2011;16(4)   
2011- National Advisory Committee, Model Systems Knowledge Translation Center, Washington, DC   
2011, 2013, 2015 Reviewer, NIDILRR, US Department of Health and Human Services   
2012, 2013 Reviewer, Alessandro Liberati Programme for Young Investigators, Emilia-Romagna Regional Health Authority and the regional Universities, Italy   
2013-15 Chair, NINDS SCI-CDEs: Demographics Work Group   
2013- Editorial Board, Topics in SCI Rehabilitation   
2013- Member, Executive Committee, “Setting up SCI Database amongst selected Asian Spinal Cord Network members” Task Force, International Spinal Cord Society   
2014, 2015 Reviewer, Paralyzed Veterans of America Research Foundation   
2014- Member, International SCI Data Sets   
2015- Member, Oversight Committee, NINDS SCI-CDEs   
2015- Chair, SCI-Interdisciplinary Special Interest Group, American Congress of Rehabilitation Medicine   
2015, 2016 Reviewer, Conquer Paralysis Now Challenge Stage I Grants, Sam Schmidt Paralysis Foundation   
  
Professional Memberships   
Taiwan Academy of Physical Medicine and Rehabilitation (1990-), American Public Health Association (1994-), Society for Epidemiologic Research (1997- 2013), American Academy of Physical Medicine and Rehabilitation (1998-2005), International Spinal Cord Society (2002-), American Spinal Injury Association (2002-), American Congress of Rehabilitation Medicine (2006-)   
  
C. Contribution to Science   
  
1. My primary research interest is to apply modern epidemiologic and statistical methodology in studies of long-term outcomes after SCI. When I first analyzed data from the National SCI Database for my dissertation research in 1997, there were numerous publications based on this database, but virtually none of them used longitudinal approach, although the National SCI Database contained 78,627 follow-up records up to 25 years post-injury at that time. As a result, clinical utility of those database research is limited. Modern epidemiologic methodology has been applied in my research in various areas, including case definition, selection of controls (i.e., incident density sampling), and study design (i.e., retrospective dynamic cohort, nested case-control, matched case-control, and person-time approach). Longitudinal statistical techniques have also been utilized, including, but not limited to, Generalized Estimation Equation (GEE), Hierarchical Linear Model (HLE), Random Effects Model, Poisson regression analysis, time-to-event approach, Transition model, and Difference model analysis.   
a) Chen YY, DeVivo MJ, Jackson AB. Pressure ulcer prevalence in people with spinal cord injury: age-period-duration effects. Arch Phys Med Rehabil 2005;86:1208-1213.   
b) Chen Y, Anderson CJ, Vogel LC, Chlan KM, Betz RR, McDonald CM. Change in life satisfaction of adults with pediatric-onset spinal cord injury. Arch Phys Med Rehabil 2008;89:2285-2292.   
c) Qu H, Shewchuk RM, Chen Y, Richards JS. Evaluating the quality of acute rehabilitation care for patients with spinal cord injury: an extended Donabedian model. Q Manage Health Care 2010;19(1):47–61.   
d) Pretz CR, Kozlowski AJ, Charlifue S, Chen Y, Heinemann AW. Using rasch motor FIM individual growth curves to inform clinical decisions for persons with paraplegia. Spinal Cord 2014;52:671-676.   
  
2. Because of my deeply involvement with the National SCI Statistical Center project over the last 20 years, I am very much committed to promote rigorous SCI research using data from existing large datasets. There have been large amounts of health-related information that are collected and archived by federal and non-federal agencies for administrative or research purpose. Advances related to statistical methods, bioinformatics, information technology and the internet have permitted the creation of high quality databases, easier access to aggregated information, and consequently provided an unprecedentedly great opportunity for research using data from large datasets. I have innovatively linked data from several large datasets for studying environmental and community factors in relation to physical and psychosocial wellbeing of persons with SCI. At some occasions, I conducted medical chart reviews and telephone interviews to obtain further information to supplement information in the database, in attempt to address research questions in a comprehensive and in-depth manner.   
a) Chen YY, Roseman JM, DeVivo MJ, Huang CT. Geographic variation and environmental risk factors for the incidence of initial kidney stones in patients with spinal cord injury. J Urol 2000;164:21-26.   
b) Chen Y, Roseman JM, Funkhouser E, DeVivo MJ. Urine specific gravity and water hardness in relation to urolithiasis in persons with spinal cord injury. Spinal Cord 2001;39:571-576.   
c) Botticello A, Chen Y, Cao Y, Tulsky DS. Do communities matter after rehabilitation? The effect of socioeconomic and urban stratification on well-being after spinal cord injury. Arch Phys Med Rehabil 2011;92:464-471.   
d) Botticello A, Chen Y, Tulsky DS. Geographic variation in participation for physically disabled adults: The contribution of area economic factors to employment after spinal cord injury. Soc Sci Med 2012;75;1505-1513.   
  
3. Among a long list of secondary health conditions after SCI, I am particularly interested in the risk and risk factors for obesity as well as development of weight management program for persons with SCI. Despite widespread concern about obesity in persons with disability, there was virtually not any interventional research ever conducted in the SCI population in 2000, and we had very limited knowledge of the health benefits of weight loss in the SCI population or the potential adverse effects on compromising lean body mass and nutritional status among these individuals, which could negatively impact their already-elevated risk of various medical complications. I have designed and conducted a series of research initiatives, funded by now NIDILRR, NIH, and Paralyzed Veterans of America-Research Foundation, to address this obesity issue in persons with SCI.   
a) Chen Y, Henson S, Jackson AB, Richards JS. Obesity intervention in persons with spinal cord injury. Spinal Cord 2006;44:82–91.   
b) Chen Y, Cao Y, Klebine P, Hubbert KA, Mark VW. Home-based intervention on weight control of persons with spinal cord injury. J Spinal Cord Med 2009;32(4):485.   
c) Chen Y, Cao Y, Allen V, Richards JS. Weight matters: physical and psychosocial well being of persons with spinal cord injury in relation to body mass index. Arch Phys Med Rehabil 2011;92:391-398.   
d) Yarar-Fisher C, Chen Y. Jackson A, Hunter G. Body mass index underestimates adiposity in women with spinal cord injury [corresponding author]. Obesity 2013;21:1223-1225.   
  
4. Because of my public health background and realization that the prevention is the best solution for all physical, psychological, and economic consequences of SCI, I have been lately involved in various prevention initiatives through the participation in the Prevention Committees of the American Spinal Injury Association and the International Spinal Cord Society. I have presented in prevention symposia and published SCI statistics and trends to help inform the public and develop effective prevention strategies.   
a) DeVivo MJ, Chen Y. Trends in new injuries, prevalent cases, and aging with spinal cord injury. Arch Phys Med Rehabil 2011;92:332-338. [corresponding author].   
b) DeVivo MJ, Chen Y. Mennemeyer ST, Deutsch A. Costs of care following spinal cord injury. Top Spinal Cord Inj Rehabil 2011;16(4):1-9. [corresponding author].   
c) Chen Y, Tang Y, Vogel L, DeVivo MJ. Causes of spinal cord injury. Top Spinal Cord Inj Rehabil 2013;19:1-8.   
d) Chen Y, Tang Y, Allen V, DeVivo MJ. Aging and spinal cord injury: External causes of injury and implications for prevention. Top Spinal Cord Inj Rehab 2015;21(3):218-226.   
  
  
D. Research Support   
Ongoing Research Support   
MIC-WC-001, Oculus Innovative Sciences, Inc Chen (PI) 2/1/13 – 09/30/17   
A Six Month Randomized Open-Label Trial of Pressure Ulcer Healing with Microcyn® Skin and Wound Care with Preservatives Versus Sterile Saline in Adult Spinal Cord Injury Subjects   
To compare healing progress of pressure ulcers over 6 months in patients with at least one Stage III or IV pressure ulcer in subjects treated with Microcyn versus sterile saline.   
Role: PI   
  
90DP0083, NIDILRR Chen (PI) 10/1/16 – 9/30/21   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI   
  
Completed Research Support (recent 5 years)   
90DP0011, NIDILRR Chen (PI) 10/1/11 – 9/30/16   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI   
  
H133A060039, NIDRR/Department of Education Chen (PI) 10/1/06 – 9/30/11   
National Spinal Cord Injury Statistical Center   
To receive and store data from the SCI Model Systems, perform data management activities necessary for successful maintenance and further development of the National SCI Database, and disseminate research findings and outcomes.   
Role: PI

***Hui-Yi Lin, PhD***  
Louisiana State University Health Sciences Center

*(no CV uploaded)*

***Tung-Sung Tseng, DrPH***  
Louisiana State University Health Sciences Center

*(no CV uploaded)*

***Huacong Wen, MD, MS***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Michael DeVivo, DrPH***  
University of Alabama at Birmingham

*(no CV uploaded)*

**20**

**Responsiveness and Minimal Clinically Important Difference of the Capabilities of Upper Extremity Test**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Ralph Marino, MD, MS***  
Thomas Jefferson University

**CV:**  
BIOGRAPHICAL SKETCH   
  
NAME: Marino, Ralph J.   
  
POSITION TITLE: Professor of Rehabilitation Medicine   
  
A. Personal Statement   
I have been involved in clinical care and research in neurorehabilitation with a focus on spinal cord injury since 1987. I am Board Certified in Physical Medicine and Rehabilitation and Spinal Cord Injury (SCI) Medicine. My research interests are the development of outcome assessments for use in clinical trials, determining the course of neurological and functional recovery after SCI and enhancing recovery. I have a special interest in exploring the relationship between upper extremity impairment and activities. I developed the Capabilities of Upper Extremity Questionnaire (CUE-Q), a subjective measure of upper extremity function for SCI, and an objective, standardized assessment based on the questionnaire (the CUE-T). Currently I am developing activity-based rehabilitation protocols that can be performed in the home without high cost equipment.   
  
B. Positions and Honors.   
Positions and Employment   
1987 - 1990 Instructor, Dept. of Rehabilitation Medicine, Jefferson Medical College   
1987 - 1998 Attending Physician, Dept. of Rehabilitation Medicine, Thomas Jefferson University Hospital   
1990 - 1996 Assistant Professor, Dept. of Rehabilitation Medicine, Jefferson Medical College   
1996 - 1998 Associate Professor, Dept. of Rehabilitation Medicine, Jefferson Medical College   
1998 - 2002 Clinical Associate Professor, Dept. of Rehabilitation Medicine, Mount Sinai School of Medicine   
2002 - 2010 Associate Professor, Dept. of Rehabilitation Medicine, Jefferson Medical College   
2002 - Attending Physician, Dept. of Rehabilitation Medicine, Thomas Jefferson University Hospital   
2003 - Director, Regional Spinal Cord Injury Center of the Delaware Valley   
2003 - Director of Research; Dept. of Rehabilitation Medicine; Sidney Kimmel Medical College   
2010 - Professor, Dept. of Rehabilitation Medicine, Sidney Kimmel Medical College   
Other Experience and Professional Memberships   
2001 - 2015 Associate Editor, American Journal of Physical Medicine and Rehabilitation   
2010 - 2011 Grant reviewer; Craig H. Neilsen Foundation   
2011 Grant reviewer; Center for Integration of Medicine & Innovative Technology, Boston, MA   
2013 - 2014 Grant reviewer, Craig H. Neilsen Foundation   
Honors   
2008 - 2016 Top Doctors in Philadelphia. Philadelphia Magazine   
2013 TJU Inter-Professional Practice Award. Thomas Jefferson University, Philadelphia, PA   
2013 Apple Award for excellence in publishing in SCI rehabilitation research. American Spinal Injury Association.   
2013 Estin Comarr Memorial Award for Distinguished Clinical Service. American Paraplegia Society (APS) section of the Academy of Spinal Cord Injury Professionals (ASCIP)   
2015 Dean’s Award for Excellence in Education. Sidney Kimmel Medical College   
  
C. Contribution to Science   
  
1. My early publications addressed neurologic and functional recovery after traumatic SCI. I continue to publish in this area. These publications detailed the course of neurologic recovery over the first year after SCI, and have been used for prognosis. More recent publications have used the SCI Model Systems database, which has allowed comparison with other national and international registries in SCI.   
  
a. Marino RJ, Burns S, Graves DE, Leiby BE, Kirshblum S, Lammertse DP. Upper- and lower-extremity motor recovery after traumatic cervical spinal cord injury: an update from the national spinal cord injury database. Arch Phys Med Rehabil. 2011 Mar;92(3):369-75. PubMed PMID: 21353821.   
b. Lee BA, Leiby BE, Marino RJ. Neurological and functional recovery after thoracic spinal cord injury. J Spinal Cord Med. 2016 Jan;39(1):67-76. PubMed PMID: 25520184; PubMed Central PMCID: PMC4725794.   
c. Oleson CV, Marino RJ, Leiby BE, Ditunno JF. The effect of age alone, and age combined with pinprick, on recovery of walking function in motor complete, sensory incomplete spinal cord injury. Arch Phys Med Rehabil. 2016 Feb 17;PubMed PMID: 26898390.   
d. Marino RJ, Schmidt-Read M, Kirshblum SC, Dyson-Hudson TA, Tansey K, Morse LR, Graves DE. Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in neurological classification of persons with spinal cord injury. Arch Phys Med Rehabil. 2016 Feb 24;PubMed PMID: 26921681   
  
2. I have studied the relationship between neurologic status and functional status after SCI, in order to understand the impact of neurologic recovery and interventions to improve neurological outcomes. These studies have revealed the confounding effects of rehabilitation interventions when trying to relate motor function to performance of activities of daily living (ADL). The model of disablement and enablement described by the Institute of Medicine, with components of Impairment, Functional Limitations, and Disability has proved a useful model to disentangle the effects of adaptive rehabilitation strategies, such as use of equipment or alternative techniques or settings, and neurologic improvement, on function.   
  
a. Marino RJ, Stineman MG. Functional assessment in spinal cord injury. Top Spinal Cord Inj Rehabil 1996;1(4):32-45.   
b. Marino RJ, Graves DE. Metric properties of the ASIA motor score: subscales improve correlation with functional activities. Arch Phys Med Rehabil. 2004 Nov;85(11):1804-10. PubMed PMID: 15520975.   
c. Marino, RJ. Neurological and functional outcomes in spinal cord injury: Review and recommendations. Topics Spinal Cord Injury Rehabil 2005;10(4):51-64.   
d. Marino RJ. Domains of outcomes in spinal cord injury for clinical trials to improve neurological function. J Rehabil Res Dev. 2007;44(1):113-22. PubMed PMID: 17551865.   
  
3. In conducting the research noted above, I came to the conclusion that there were not sensitive enough outcome measures in SCI to determine the functional importance of improvements in neurologic function. This led to a study of and development of outcome measures. Training to undertake this area of research was obtained during a K-award from the NIH, where I received a Master of Science Degree in Clinical Epidemiology. I have been involved in the evaluation and revision of impairment and ADL measures in SCI, and have developed a subjective and objective assessment of upper extremity capabilities, the Capabilities of Upper Extremity Questionnaire and Test, respectively.   
  
a. Marino RJ, Patrick M, Albright W, Leiby BE, Mulcahey MJ, Schmidt-Read M, Kern SB. Development of an objective test of upper-limb function in tetraplegia: the capabilities of upper extremity test. Am J Phys Med Rehabil. 2012 Jun;91(6):478-86. PubMed PMID: 22469875.   
b. Oleson CV, Marino RJ. Responsiveness and concurrent validity of the revised capabilities of upper extremity-questionnaire (CUE-Q) in patients with acute tetraplegia. Spinal Cord. 2014 Aug;52(8):625-8. PubMed PMID: 24891011.   
c. Marino RJ, Kern SB, Leiby B, Schmidt-Read M, Mulcahey MJ. Reliability and validity of the capabilities of upper extremity test (CUE-T) in subjects with chronic spinal cord injury. J Spinal Cord Med. 2015 Jul;38(4):498-504. PubMed PMID: 25297342; PubMed Central PMCID: PMC4612205.   
d. Marino RJ, Schmidt-Read M, Kirshblum SC, Dyson-Hudson TA, Tansey K, Morse LR, Graves DE. Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in neurologic classification of persons with spinal cord injury. Arch Phys Med Rehabil. 2016 Oct;97(10):1642-6. doi: 10.1016/j.apmr.2016.02.006. PubMed PMID: 26921681   
  
Complete List of Peer-Reviewed Published Work: http://www.ncbi.nlm.nih.gov/myncbi/browse/collection/45885945/?sort=date&direction=descending   
  
D. Research Support   
Ongoing Research Support   
NIDILRR, HHS Project Period: 9/30/2016– 9/29/2021   
Title: Regional Spinal Cord Injury Center of the Delaware Valley   
Description: Contribute to a national database on outcomes after traumatic SCI   
Onsite project is to develop and pilot test an upper extremity activity-based therapy program that does not rely on robotics or high cost equipment and can be carried out in the home.   
Role: Principal Investigator   
  
Craig H. Neilsen Foundation Project Period: 7/1/2013-6/30/2017 (with NCE)   
Title: Responsiveness of the Capabilities of Upper Extremity Test (CUE-T)   
Goal: To determine the sensitivity to change in upper extremity function of persons with tetraplegia during the course of neurological recovery or after upper extremity reconstruction surgery using the CUE-T   
Role: Principal Investigator   
  
Completed Research Support   
NIDILRR, HHS Project Period: 10/1/2011– 9/29/2016   
Title: Regional Spinal Cord Injury Center of the Delaware Valley   
Description: Contribute to a national database on outcomes after traumatic SCI   
Lead Center for Collaborative module on neurorecovery. Module goal is to obtain data on neurological recovery in patients with isolated SCI, with data collected at fixed time points by trained examiners.   
Role: Principal Investigator   
  
Craig H. Neilsen Foundation Project Period: 1/1/2014-12/31/2016   
PI: MJ Mulcahey, PhD, OTR/L   
Title: Pediatric Multi-Center Evaluation of Notable SCI Outcomes Instruments   
Goal: To evaluate at what age reliable assessments can be obtained in children with SCI using instruments designed for adults with SCI   
Role: Investigator   
  
DoD Project Period: 10/1/2010-9/30/2014   
PI: Adam Flanders, MD   
Title: Value of MRI and DTI as biomarkers for classifying acute spinal cord injury.   
Goal: To determine the relationship between MRI dti imaging characteristics of the spinal cord and the level, severity and degree of recovery after cervical SCI, to see if MRI is useful in predicting recovery.   
Role: Investigator   
  
Craig H. Neilsen Foundation Project Period: 7/1/2010-6/30/2013   
PI: Therese Johnston, PT, PhD   
Title: Effects of two functional electrical stimulation cycling paradigms   
Goal: To determine if a low cadence, high resistance FES cycling program will increase bone density more than the typical high cadence, low resistance program.   
Role: Investigator

***Rebecca Sinko, OTD, OTR/L***  
Thomas Jefferson University

*(no CV uploaded)*

***Benjamin Leiby, PhD***  
Thomas Jefferson University

*(no CV uploaded)*

***Anne Bryden, OTR/L***  
Case Western Reserve University

*(no CV uploaded)*

***Greg Nemunaitis, MD***  
Metrohealth Medical Center

*(no CV uploaded)*

***David Chen, MD***  
Shirley Ryan Abilitylab

*(no CV uploaded)*

***Deborah Backus, PT, PhD***  
Shepherd Center

*(no CV uploaded)*

**21**

**ReInventing yourself after SCI: A bridge from rehabilitation to real world**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Jennifer Coker, MPH***  
Craig Hospital

**CV:**  
EMPLOYMENT   
09/2017 to present: Principal Investigator, A multi-site randomized controlled trial of an intervention to improve outcomes after spinal cord injury (funded by the National Institute on Disability, Independent Living, and Rehabilitation Research, NIDILRR), Craig Hospital, Englewood, CO   
09/2016 to present: Principal Investigator, Utilization of Complementary and Integrative Healthcare to Treat Pain in Persons with Spinal Cord Injury (NIDILRR), Craig Hospital, Englewood, CO   
11/2014 to present: Principal Investigator, A Bridge from Rehabilitation to Real-World: Reinventing Yourself after SCI (Craig H Neilsen Foundation), Craig Hospital, Englewood, CO   
04/2012 to present: Research Associate, Rocky Mountain Regional Spinal Injury System (RMRSIS) (NIDILRR), Craig Hospital, Englewood, CO   
10/2011 to 04/2012: Co-Investigator, Rehabilitation Research and Engineering Center on Wireless Technology, Crawford Research Institute, Shepherd Center, Atlanta, GA,   
01/2011 to 04/2012: Senior Research Analyst, Crawford Research Institute, Shepherd Center, Atlanta, GA   
05/2005 to present: Project Coordinator II, IRB Coordinator, Grant Writer, College of Health Professions, Medical University of South Carolina (MUSC), Charleston, SC   
01/2003 to 05/2005: Assistant Professor, Research, College of Health Professions, MUSC, Charleston, SC   
10/2002-01/2003: Research Coordinator, Crawford Research Institute, Shepherd Center, Atlanta, GA   
03/2001-10/2002: Research Coordinator, Georgia Model Brain Injury System (GAMBIS) (NIDRR), Crawford Research Institute, Shepherd Center & Emory University Center for Rehabilitation Medicine, Atlanta, GA   
06/1998-02/2001: Research Publications Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA,   
09/1997 - 05/1998: Research Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA   
  
AWARDS & HONORS   
Rollins School of Public Health, Emory University: The James W. Alley Award for Outstanding Service to Disadvantaged Populations. May 14, 2001.   
American Spinal Injury Association, 2nd place poster prize: The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Poster presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best paper presenting original research findings for: Employment after Spinal Cord Injury: An Analysis of Cases from the Model Spinal Injury Systems.   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best poster presenting original research findings for: Health Behaviors of Women with Spinal Cord Injury.   
  
THESIS   
Coker, J. L., Thompson, N., & Krause, J. S. (2001). Social support and health outcomes after spinal cord injury: A mediation analysis. Defended March, 2001.   
  
PROFESSIONAL MEMBERSHIPS   
2016 to present: American Spinal Injury Association (ASIA) – Student Member   
2017 to present: International Spinal Cord Society (ISCoS) – Student member   
2017 to present: Cycle of Hope – Board of Directors   
  
PUBLICATIONS IN PROFESSIONAL JOURNALS:   
1. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Selected health behaviors among American Indians with spinal cord injury: Comparison to 1996 data from the Behavioral Risk Factor Surveillance System. Archives of Physical Medicine and Rehabilitation, 80, 1435-1440.   
2. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Depression and subjective well being among 97 American Indians with spinal cord injury. Rehabilitation Psychology, 44, 354-372.   
3. Krause, J. S., Kewman, D., DeVivo, M. J., Maynard, F., Coker, J. L., Roach, M. J., & Ducharme, S. (1999). Employment after spinal cord injury: An analysis of cases from the model spinal injury systems. Archives of Physical Medicine and Rehabilitation, 80, 1492-1500.   
4. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (2000). Health outcomes among American Indians with spinal cord injury. Archives of Physical Medicine and Rehabilitation, 81, 924-931.   
5. Krause, J. S., Kemp, B. J., & Coker, J. L. (2000). Depression after spinal cord injury: Relationship with gender, race/ethnicity, aging, and socioeconomic indicators. Archives of Physical Medicine and Rehabilitation, 81, 1099-1109.   
6. Krause, J. S., Vines, C. L., Farley, T. L., Sniezek, J., & Coker, J. L. (2001). An exploratory study of pressure ulcers after spinal cord injury: Relationship to protective behaviors and risk factors. Archives of Physical Medicine and Rehabilitation, 82, 107-113.   
7. Alderson, A., Godsall, R., Mullin, J., Coker, J., & Macciocci, S. (2001). Serial cognitive assessment in an outpatient rehabilitation setting. Archives of Clinical Neuropsychology, 16, 757-769.   
8. Mullin, J., Ripley, D., Vargas, J., Godsall, R., Korrick, S., & Coker, J. (2002). Relationship between balance and cognition following traumatic brain injury. Premier Outlook, 3(4), 30-35.   
9. Thompson, N., Coker, J. L., Krause, J. S., & Henry, E. (2003). Purpose in life as a mediator of adjustment after spinal cord injury. Rehabilitation Psychology, 48, 100-108.   
10. Macciocchi, S. N., Bowman, B., Coker, J. L., Apple, D., & Leslie, D. P. (2004). The impact of co-morbid traumatic brain injury on functional outcome of persons with spinal cord injury. American Journal of Physical Medicine and Rehabilitation, 83, 22-26.   
11. Krause, J. S., Coker, J. L. (2006). Aging after spinal cord injury: A 30-year longitudinal study. Journal of Spinal Cord Medicine, 29, 371-376.   
12. Krause, J.S., Saunders, L.L., Reed, K.S., Coker, J.L., Zhai, Y, & Johnson, E. (2009). Comparison of the Patient Health Questionnaire and the Older Adult Health and Mood Questionnaire for self-reported depressive symptoms after spinal cord injury. Rehabilitation Psychology, 54, 440-448.   
  
PRESENTATIONS AT PROFESSIONAL CONFERENCES   
1. Krause, J. S., Coker, J. L., & Sutton, G. Risk for secondary conditions: A model for prediction and prevention. Presented at the annual meeting of the American Spinal Cord Injury Association, Cleveland, Ohio; April, 1998.   
2. Coker, J. L., Krause, J. S., Charlifue, S., & Sutton, G. Utilization of items from the BRFSS to monitor health related behaviors of persons with spinal cord injuries. Presented at the annual Centers for Disease Control & Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS) conference, Atlanta, Georgia; May, 1998.   
3. Krause, J. S., Sternberg, M., & Coker, J. L. Prospective predictions of mortality after spinal cord injury. Presented at the annual conference of the American Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1998.   
4. Coker, J. L., & Krause, J. S. Risk for further injury after the onset of SCI. Presented at the annual meeting of the American Congress of Rehabilitation Medicine, Seattle, Washington; November, 1998.   
5. Coker, J. L., Krause, J. S., Vines, C. L., & Farley, T. L. Behavioral predictors of pressure ulcers: A population cohort. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
6. Coker, J. L., Krause, J. S., & Charlifue, S. Pressure ulcers and secondary injuries among American Indians with spinal cord injury. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
7. Coker, J. L., Krause, J. S., Whiteneck, G. G., & Charlifue, S. Health behaviors among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
8. Coker, J. L., Krause, J. S., & Hudson, L. The prevalence of secondary injuries after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
9. Krause, J. S., Hudson, L., & Coker, J. L. Purpose in life after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
10. Krause, J. S., Coker, J. L., Whiteneck, G. G., & Charlifue, S. Health outcomes of secondary conditions among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
11. Coker, J. L., Krause, J. S., & Henry, E. Prediction of employment after spinal cord injury: Matching research participants to individual cases. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
12. Krause, J. S., & Coker, J. L. Purpose in life after spinal cord injury. Part of a symposium entitled “Dealing with chronic injury: The role of purpose and spirituality.” Presented at the annual conference of the American Psychological Association, Boston, Massachusetts; August, 1999. (Presented by J. L. Coker).   
13. Coker, J. L., & Krause, J. S. Purpose in life after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999.   
14. Crewe, N. M., & Coker, J. L. Case studies of depression following SCI. Part of a panel presentation entitled “Depression among individuals in the community with spinal cord injury: Incidence, correlates, case studies, and treatment” presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999. (Presented by J. L. Coker).   
15. Krause, J. S., Kemp, B. J., & Coker, J. L. Correlates of depression after spinal cord injury. Presented at the annual conference of the American Congress of Rehabilitation Medicine, Orlando, Florida; October, 1999.   
16. Coker, J. L., Krause, J. S., & Henry, E. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Public Health Association, Chicago, Illinois; November, 1999.   
17. Coker, J. L., & Krause, J. S. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000 (2nd place prize winner).   
18. Coker, J. L., & Krause, J. S. Relationship of personality with risk behaviors in individuals with spinal cord injury. Presented at the annual meeting of the American Psychological Association, Division 22, Washington, DC; August, 2000.   
19. Gemella, A. G., Krause, J. S., & Coker, J. L. Health behaviors among women with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
20. Coker, J. L., & Krause, J. S. A comparison of psychosocial factors between five racial/ethnic groups. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
21. Coker, J. L., & Krause, J. S. Reasons for unemployment among 160 individuals with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
22. Coker, J. L., & Krause, J. S. Social support after traumatic spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
23. Krause, J. S., & Coker, J. L. Depression after spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
24. Coker, J. L. Factors involved in maintaining quality of life. Presentation for the American Spinal Injury Association pre-course entitled, “Aging with spinal cord injury: Clinical implications from recent research findings.” Long Beach, California; May 17, 2001.   
25. Ripley, D. L., Macciocchi, S., Coker, J. L., & Huang, M. Diabetes mellitus and functional outcome following cerebrovascular accident. Presented at the annual meeting of the Association of Academic Physiatrists, Las Vegas, Nevada; March, 2002. (Presented by J. L. Coker).   
26. Coker, J. L. Outcomes of persons with spinal cord injuries living in rural and urban settings. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2002.   
27. Coker, J. L. Social support and health outcomes after spinal cord injury. Presented at the annual conference of the American Psychological Association, Honolulu, Hawaii; July, 2004.   
28. Coker, J. L. Maintenance of healthy affect and avoidance of depression after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
29. Coker, J. L. Pre-injury alcohol use, intoxication at injury, and sensation seeking among persons with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
30. Coker, J. L. Factors associated with earnings from gainful employment after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
31. Coker, J. L. Spiritual coping: Differences between Caucasians and African Americans with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
32. Coker, J. L. & Krause, J. S. Disparities in subjective well-being, participation, & health after SCI: A 6-year longitudinal Study. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
33. Coker, J. L. & Krause, J. S. Depressive symptoms during inpatient rehabilitation for spinal cord injury. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
34. Krause, J., McArdle, J., Coker, J. (2008). Poster 61: Changes in somatic and nonsomatic depressive symptoms between inpatient rehabilitation and follow-up. Presented at the annual conference of the American Congress for Rehabilitation Medicine, Toronto, Ontario, October 2008.   
35. Coker, J. L., Saunders, L.L., Krause, J.S., Brotherton, S., Morrisette, D. Walking distance and spinal cord injury. Poster to be presented at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
36. Coker, J. L., Saunders, L.L., & Krause, J.S. Psychological factors affecting alcohol use after spinal cord injury. Oral presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
37. Coker, J. L., Krause, J.S., & Saunders, L.L. Vocational interests after recent spinal cord injury: Comparisons related to gender and race. Poster presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
38. Coker, J. L., Krause, J.S., Reed, K.S., & McArdle, J.J. Natural course of depressive symptoms after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
39. Coker, J. L., Krause, J.S., Saunders, L.L., & Newman, S. Posttraumatic stress disorder after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
40. Charlifue, S., Coker, J. L. Reinventing yourself – Enhancing self-efficacy skills in people with SCI. Oral presentation at the annual conference of the American Spinal Injury Association (ASIA) pre-course, Philadelphia, PA: April, 2016.

**22**

**The Effects of an Exercise Program to Accompany Biologic or Therapeutic Clinical Trials in People with Chronic Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Katie Gant, PhD***  
Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine

**CV:**  
Biographical Sketch   
  
Name: Katie L Gant, PhD   
  
Position Title: Assistant Scientist, Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine   
  
A. Personal Statement   
  
My current position as an assistant scientist at The Miami Project to Cure Paralysis gives me the opportunity to be involved in the clinical trials research program, as well as education and outreach efforts. I have experience in conducting electrophysiology experiments in humans and animal models, and designed custom hardware to collect physiological data. My doctoral research focused on the development brain-machine interfaces to enable hand movements in people with cervical, motor complete spinal cord injuries. In my current position, I am involved in the design, collection, documentation, and analysis of clinical trial research data. I also am a part of the education department at The Miami Project, which affords me the opportunity to educate people with spinal cord injuries and their families, as well as the public, about the work being done at The Miami Project.   
  
B. Positions and Honors   
  
Positions and Employment   
08/05-03/07 Teaching Assistant, Anatomy and Physiology, Biomedical Electronics. Tulane University, New Orleans, LA   
03/07-11/07 Research and Product Development Engineer. BioTissue, Miami, FL   
11/07-12/12 Research Associate III. The Miami Project to Cure Paralysis, Miami, FL   
01/13-05/13 Teaching Assistant, Biomedical Measurements. University of Miami, Miami, FL   
06/13-05/14 Resident Scientist. NSF GK-12 Fellowship, Science Made Sensible, Miami, FL   
06/14-03/16 Graduate Mentor. Science Made Sensible, Miami, FL   
04/16-PRES Assistant Scientist, The Miami Project to Cure Paralysis, Miami, FL   
  
Honors and Awards   
03/05 Business Plan Competition, Freeman School of Business, 2nd Place   
04/05 Tulane Biomedical Engineering Team Design Competition, 1st Place   
07/10 Travel Grant, Motoneuron Meeting 2010, Paris, $1,500   
06/13-05/14 NSF GK-12 Science Made Sensible Fellowship, $30,000   
10/13 Travel Grant, Society for Neuroscience 2013, San Diego, $400   
06/14-05/16 Graduate Mentor, Science Made Sensible Program, $5,000   
10/15 Travel Grant, Society for Neuroscience Meeting 2015, Chicago, $800   
  
Other Experience and Professional Memberships   
07/14-07/16 Institute of Electrical and Electronics Engineers (IEEE)   
07/13-07/16 Biomedical Engineering Society (BMES)   
07/13-07/16 Society for Neuroscience (SfN)   
03/16 Phlebotomy Certification   
03/16 International Standards for the Classification of Spinal Cord Injury (ISNCSCI) Certification   
07/16-PRES American Spinal Injury Association (ASIA)   
  
C. Contributions to Science   
  
Zijdewind I, Gant K, Bakels R, Thomas CK. Do additional inputs change maximal voluntary motor unit firing rates after spinal cord injury? Neurorehabil Neural Repair, 2011 Jan;26(1):58-67   
  
Kressler J, Thomas CK, Field-Fote EC, Sanchez J, Widerstrom-Noga E, Cilien DC, Gant K, Ginnety K, Gonzalez H, Martinez A, Anderson KD, Nash MS. Understanding therapeutic benefits of overground bionic ambulation: exploratory case series in persons with chronic, complete spinal cord injury. Arch Phys Med Rehabil, 2014 Oct: 95(10):1878-1887   
  
Roset SA, Gant KL, Prasad A, Sanchez JC. An adaptive brain actuated system for augmenting rehabilitation. Front. Neurosci, 2014, 8:415   
  
Ghobrial GM, Anderson KD, Dididze M, Martinez-Barrizonte J, Sunn GH, Gant KL, Levi AD, Human neural stem cell transplantation in chronic cervical spinal cord injury: functional outcomes at 12 mo in a phase II clinical trial. Neurosurgery. 2017 Sep 1;64(CN\_suppl\_1):87-91.   
  
Gant KL, Nagle KG, Cowan RE, Field-Fote EC, Nash MS, Kressler J, Thomas CK, Castellanos M, Widerstrom-Noga E, Anderson KD. Body systems effects of a multi-modal training program targeting chronic, motor complete thoracic spinal cord injury, J Neurotrauma, 2017 Aug 10.   
  
Gant KL, Bohorquez J, Thomas CK. Device for long-term recording of EMG from multiple muscles, Biomedical Engineering. (accepted for publication Sept 20 2017)   
  
  
D. Additional Information: Research Support and/or Scholastic Performance

***Nagle Kathleen, BS***  
Covance Central Laboratory Services

*(no CV uploaded)*

***Rachel Cowan, PhD***  
Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine

*(no CV uploaded)*

***Edelle Field-Fote, PT, PhD***  
Emory University School of Medicine, Division of Physical Therapy; Professor, Georgia Institute of Technology, School of Biological Sciences; Director, Spinal Cord Injury Research & the Hulse Spinal Cord Injury Laboratory, Shepherd Center

*(no CV uploaded)*

***Mark Nash, PhD***  
Department of Neurological Surgery, Department of Physical Medicine and Rehabilitation Medicine, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine

*(no CV uploaded)*

***Jochen Kressler, PhD***  
Department of Exercise and Nutritional Sciences, College of Health and Human Services, San Diego State University

*(no CV uploaded)*

***Christine Thomas, PhD***  
Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine

*(no CV uploaded)*

***Mabelin Castellanos, BS***  
Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine

*(no CV uploaded)*

***Eva Widerstrom-Noga, DDS, PhD***  
Department of Neurological Surgery, Miami Project to Cure Paralysis, University of Miami Leonard M. Miller School of Medicine, 1095 Nw 14Th Terrace, Miami, Fl 33136; Bruce W. Carter Department of Veterans Affairs Medical Center

*(no CV uploaded)*

**23**

**The Accuracy of Wireless Accelerometers in Detecting the Leg Movements of Young Infants: A Pilot Study**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***David Chapman, PT, PhD***  
St. Catherine University

**CV:**  
A. Personal Statement   
David Chapman is a well-trained, highly experienced pediatric physical therapist and researcher. He has   
completed multiple studies that have been designed to examine how often infants with lumbar or sacral spina   
bifida spontaneously move their legs and kick over developmental time. Dr. Chapman has successfully   
implemented several research paradigms with infants born with spina bifida who have had their spinal lesion   
repaired after they are born and has completed one study that included infants with spina bifida who had their   
spinal lesion repaired in-utero. Thus, he brings significant experience in working with infants with SB   
regardless of when they have had their spinal lesion repaired. In addition, he brings a wealth of knowledge and   
expertise in successfully working with the parents of these infants.   
Recently, Dr. Chapman has expanded his line of research with infants who have spina bifida to also examine   
how often these babies generate goal-directed or purposeful leg movements and kicks over developmental   
time. This initial study in which he examined the frequency of goal-directed leg movements and kicks provides   
the basis for the proposed study that is the focus of this grant application. As such, he is a key collaborator in   
moving this work forward so that we can continue to gather empirical data that will provide the basis for   
evidence-based interventions to be implemented with infants born with spina bifida.   
Dr. Chapman’s productivity has been impacted by the six year span in which he stepped away from academic   
work to acquire a more robust clinical experience base. Ultimately, this window of time enabled him to develop   
a more detailed and focused research agenda that is specifically aimed at developing data sets that can be   
used to guide clinicians and care-givers as they work to implement evidence-based interventions for infants   
with spina bifida.   
B. Positions and Honors   
Positions   
August 1992-June 1995 Associate Instructor Indiana University   
August 1988-June 1992 Special Services Case Manager Laramie, WY   
August 1982-July 1988 Adapted Physical Education Specialist Laramie, WY   
July 1995-December 2003 Assistant Professor Indiana University   
July 2000-December 2003 Supplemental Staff Physical Therapist Riley Children’s Hospital   
January 2003-November 2006 Physical Therapist II/Clinical Specialist Bloomington Hospital Children’s   
Therapy Clinic   
November 2006-March 2009 Supervisor of Rehabilitation Services Bloomington Hospital Bloomington, IN   
April 2009-May 2013 Assistant Professor St. Catherine University   
Program Director/Principal Investigator (Last, First, Middle):Chapman, David D.   
June 2013-Present Associate Professor St. Catherine University   
Honors   
Nominee and Finalist for the annual Faculty Teaching and Advising Award at St. Catherine University (2013-   
2014 Academic Year)   
Halder and Katie Palmer Rehabilitation Services Award for outstanding compassion in the performance of   
rehabilitation therapy, or support thereof, empathy for and understanding of the immediate and sometimes lifelong   
challenges faced by both patients and families. Blooomington Hospital Foundation (2005)   
Jeanne Hughes Award through the American Physical Therapy Association for the best manuscript published   
in Pediatric Physical Therapy adapted from a dissertation. (2003)   
John H. Edwards Fellowship – The most prestigious fellowship awarded to graduate students by Indiana   
University. This award is based on scholastic ability, citizenship, character, and public service. Indiana   
University (1994 - 1995)   
Indiana University Department of Kinesiology Graduate Student Fellowship. Indiana University (1992 – 1995)   
C. Selected Peer-reviewed Publications   
1. Chapman, D (2015) Designing your inter-professional evidence-based project. In Inter-professional Team   
Workbook for Evidence Based Practice P. Moyers & P. Guthrie-Finch (Eds) SLACK: Thorofare, NJ   
2. Chapman, D. (2014) Developing systems: Birth to Adolescence. In Clinical Exercise Pathophysiology for   
Physical Therapy. D. Coglianese (Ed) SLACK: Thorofare, NJ   
3. Chapman, D. Context effects on the ability of young infants with myelomeningocele to generate complex   
patterned leg movements. In Come to Your Senses: Creating Supportive Environments to Nurture the   
Sensory Capital Within. Mukibaum Treatment Centres, Toronto, Canada: 2009.   
4. Chapman, D. & Porter, RE. Sensory considerations in therapeutic interventions. In Therapuetic Exercise   
in Developmental Disabilities, 3rd Ed. BH Connolly & PC Montgomery (Eds) SLACK Inc: Thorofare, NJ:   
2005.   
5. Chapman, D. Context effects on the spontaneous leg movements of infants with spina bifida. Pediatric   
Physical Therapy.2002; 14(2):62-73.   
6. Ulrich, B.D., Ulrich, D.A., Angulo-Kinzler, R. & Chapman, D. Sensitivity of infants with Down syndrome to   
unilateral weight perturbations. Research Quarterly for Exercise Science and Sport. 1997; 68:10-19.   
7. Meilke, D. & Chapman, D. The ability of pre-service teachers in assessing the gross motor development   
of children using the Test of Gross Motor Development. Perceptual and Motor Skills. 1987; 64:1249-   
1250.   
D. Research Support   
Completed Research Support   
Chapman, D. The ability of young infants with spina bifida to generate kicks. APDC Grant from St. Catherine   
University (2013)   
D. Chapman was the PI for this project. The purpose of this study was to determine if young infants with   
lumbar or sacral SB moved their legs and kicked more often over developmental time when they were placed   
in an adjustable specially designed infant seat compared to when they were supine.   
Chapman, D. The ability of young infants with spina bifida to generate kicks. EARDA Pilot Grant from the   
National Institute of Health (2010)   
D. Chapman was the PI for this grant. The goals of this study were to describe how often infants with lumbar or   
sacral SB who were seven months old and older moved their legs and kicked over developmental time as well   
as examine the influence of the movement context on their frequency of leg movements and kicks.

***Cesar Lopez, MS***  
Mayo Clinic

*(no CV uploaded)*

***Kristin Zhao, PhD***  
Mayo Clinic

*(no CV uploaded)*

**24**

**The effects of acute intermittent hypoxia on respiratory function in humans with spinal cord injury: a pilot study.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Tommy Sutor, MS, CSCS***  
University of Florida

**CV:**  
A. Personal Statement   
Doctoral Dissertation and Research Experience: My dissertation research focuses on modulating spinal networks to improve motor function after human spinal cord injury. This focus comes from previous research and clinical experience. My master’s research focused on post-activation potentiation, a phenomenon that can improve muscular power by temporarily exciting alpha-motor neurons. Furthermore, I spent four years as an exercise trainer for people with spinal cord injuries. This led to an interest in developing more effective therapies to improve function after spinal cord injury. These experiences gave me a valuable understanding of the intricacies of human subject research, and of spinal network and motor neuron function.   
In my initial 2 years in the Rehabilitation Science PhD program, my first step to study spinal networks explored coupling between walking and breathing in humans with spinal cord injury, compared to able-bodied controls. The degree of coupling between walking and breathing rhythms is thought to reflect neural communication between respiratory and locomotor control centers. Therefore, this coupling offers a way to study spinal networks during functional behaviors. As I am currently funded through the Brooks-PHHP Research Collaboration, I have gained valuable experience collaborating with another location, as much of this research took place at Brooks Rehabilitation. These experiences familiarized me with regulatory processes such as IRB submission, and helped refine my writing and data analysis skills. I have also presented preliminary results at various meetings, including the Society for Neuroscience meeting in 2016.   
I have received IRB approval to begin a second study seeking to examine spinal modulation further, by studying the use of acute intermittent hypoxia to improve trunk muscle activation in adults with spinal cord injuries. My prior research experience, along with my mentors’ varied expertise, including respiratory physiology, neuroplasticity, and neurorehabilitation, provide a strong foundation to enable my success.   
Training Goals and Objectives: The scientific goal of my predoctoral training is to investigate acute intermittent hypoxia to enhance physical rehabilitation after spinal cord injury. I also plan to continue to collaborate with basic scientists to inform basic research, and to gain mechanistic understandings that inform my own clinical research. The goal for these interactions is to have an impact on my future research, to turn basic mechanistic findings into clinically viable rehabilitation techniques for people with spinal cord injury.   
B. Positions and Honors   
Positions and Employment   
2010 - 2011 Graduate Assistant Strength & Conditioning Coach, East Stroudsburg University   
2011 - 2015 Program Director and Lead Trainer, Push to Walk spinal cord injury gym, Riverdale, New Jersey   
2015 - present Graduate Research Assistant, University of Florida   
Other Experience and Professional Memberships   
2009 – present Member, National Strength and Conditioning Association   
2016 Member, Society for Neuroscience   
Honors   
2009 - present Certified Strength and Conditioning Specialist   
2012 NeuroRecovery Network certified Locomotor Training Technician   
C. Contribution to Science –   
Intermittent hypoxia for motor function enhancement after spinal cord injury   
Spinal cord injury can have devastating effects on motor function, resulting in complete paralysis in the worst cases. Rehabilitation for motor functions such as walking, standing, sitting, or breathing can be efficacious for some, but many individuals are still left with large motor function deficits which may impair functional abilities. My PhD mentors have extensive experience with animal models of spinal cord injury and acute intermittent hypoxia, a novel strategy for enhancing motor function after spinal cord injury. Extending knowledge gained from their previous research, we worked with clinicians at Brooks Rehabilitation to test acute intermittent hypoxia in humans with spinal cord injury. At Society for Neuroscience 2016, I presented a case study on a single subject with a cervical spinal cord injury whose respiratory strength and diaphragm EMGs improved following a session of acute intermittent hypoxia. We have also recently received approval from the UF IRB to study acute intermittent hypoxia to enhance trunk muscle function in individuals with spinal cord injury. Our objective is to show that this relatively low-cost, safe, and accessible method of enhancing motor function after spinal cord injury can be used to enhance physical rehabilitation outcomes to greatly improve the lives of people living with spinal cord injury.   
  
a. Sutor T, Conroy C, Freeborn P, Vistamehr A, Fox EJ. Acute intermittent hypoxia to enhance trunk muscle activation during functional tasks after human spinal cord injury. 2017 [in preparation for Spinal Cord. s]   
b. Fox EJ, D’Alessandro A, Sutor T, Kerwin A, Weiss H, Jacobs G, Maher K, Hoefnagel M, Mitchell GS, Fuller DD. The effects of acute intermittent hypoxia on diaphragm activation and respiratory function in an individual with spinal cord injury. Society for Neuroscience. San Diego, CA. November 2016.   
  
Exploration of locomotor-respiratory coupling after spinal cord injury   
The degree to which one coordinates the rhythms of locomotion and breathing is known as locomotor-respiratory coupling. In high level athletes, high degrees of coupling are thought to reduce oxygen consumption and delay fatigue at high workloads, enhancing performance. Less is known about locomotor-respiratory coupling at lower workloads or in clinical populations, such as walking after spinal cord injury. If propriospinal connections between cervical respiratory centers and lumbar locomotor centers are disrupted after spinal cord injury, this could modulate spinal networks and affect the degree of locomotor-respiratory coupling one may achieve when walking. Indirectly, this adverse modulation of spinal networks could lead to increasead oxygen consumption and accelerated fatigue, making walking more difficult. In a novel study comparing locomotor-respiratory coupling during walking between spinal cord injured subjects and able-bodied controls, I have found that despite walking ability being severely impaired after spinal cord injury, the degree of locomotor-respiratory coupling is similar to able-bodied controls. Interestingly, our spinal cord injured subjects reported working as hard as they could while walking, despite walking much slower than our controls. If Spinal cord injured subjects were working harder than our controls, we would have expected their locomotor-respiratory coupling to be greater than controls, yet it was not. Thus, the absence of a statistically significant difference in locomotor-respiratory coupling in spinal cord injury may still reflect a reduction in coupling. More extensive data collection about subjects’ physiological workload, as well as data from an increased number of subjects, will determine if coupling is indeed unchanged or reduced, and what the functional significance of these findings may be.   
a. Sutor T, Fuller D, Streeter KA, Freeborn P, Fox EJ. Locomotor-Respiratory Coupling During Walking in Adults with Incomplete Spinal Cord Injury. University of Florida Department of Physical Therapy Annual NIH T32 Neuromuscular Plasticity Symposium. Gainesville, FL. March 2017.   
b. Sutor T, Tester N, Butera K, Streeter K, Fuller DD, Fox EJ. Locomotor-respiratory coupling after spinal cord injury and the effects of locomotor rehabilitation. Society for Neuroscience. San Diego, CA. November 2016.   
c. Sutor TW, Tester NJ, Fuller D, Streeter K, Butera KA, Fox EJ. Locomotor-respiratory coupling after incomplete spinal cord injury in humans. University of Florida Department of Physical Therapy Annual Neuromuscular Plasticity Symposium, Gainesville, FL. March 2016.   
  
D. Additional Information   
Summary of Support During Training   
PhD Program Year Source of Support Type of Support   
Training Year 1 Brooks-PHHP Research Collaboration RA   
Training Year 2 Brooks-PHHP Collaboration RA

***Kathryn Doughty, PT, DPT, NCS***  
Brooks Rehabilitation

*(no CV uploaded)*

***Shakeel Ahmed, PT***  
University of Florda

*(no CV uploaded)*

***David Fuller, PhD***  
University of Florda

*(no CV uploaded)*

***Gordon Mitchell, PhD***  
University of Florda

*(no CV uploaded)*

***Emily Fox, PT, DPT, PhD, NCS***  
University of Florida, Brooks Rehabilitation

*(no CV uploaded)*

**25**

**Appraisals of Disability in Middle Adulthood Following Pediatric-Onset Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Kathleen Chlan, BA***  
Shriners Hospitals Fo Children

**CV:**  
Publications:   
Hwang M, Chlan K.M., Vogel L.C., Zebracki K. Substance use in young adults with pediatric-onset spinal cord injury. Spinal Cord 2012 doi:10.1038/sc2012.8   
  
Hwang M, Zebracki K, Chlan K, Vogel L. Longitudinal changes in medical complications in adults with pediatric-onset spinal cord injury. J Spinal Cord Med. 2014;37:171-178 doi: 10.1179/2045772313Y.0000000150   
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. Mental health and risk of secondary medical complications in adults with pediatric-onset spinal cord injury. Top Spinal Cord Inj Rehabil. 2014;20:1-12. doi: 10.1310/SCI2001-1.   
  
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. Symptoms of depression over time for individuals with pediatric-onset spinal cord injury. Arch Phys Med Rehabil. 2014:95 (3), 447-454. doi:10.1016/j.apmr.2013.11.011.   
  
Hwang, M., Zebracki, K., Chlan, K., & Vogel, L. 2014 March Longitudinal employment outcomes in adults with pediatric-onset spinal cord injury. Spinal Cord. 2014 Jun;52(6):477-82. doi: 10.1038/sc.2014.32.   
  
  
January, A., Zebracki, K., Czworniak, A., Chlan, K., & Vogel., L. (advance online publication, 10 February 2015). Predictive factors of hospitalization in adults with pediatric-onset SCI: A longitudinal analysis. Spinal Cord.doi:10.1038/sc.2015.13   
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. (2015) Understanding posttraumatic growth following pediatric-onset spinal cord injury: The critical role of coping strategies for facilitating positive psychological outcomes.Developmental Medicine and Child Neurology, 57(12), 1143-1149. doi: 10.1111/dmcn.12820.   
  
January, A.M, Zebracki, K., Chlan, K.M., & Vogel, L.C. (2015). Sleep, well-being, and psychological symptoms in adults with pediatric-onset spinal cord injury. Rehabilitation Psychology, 60(4), 328-334. doi: 10.1037/rep0000061   
  
Murray, C., Zebracki, K., Chlan, K., Moss, A., & Vogel, L (2016). Medical and psychological factors related to pain in adults with pediatric-onset spinal cord injury: a biopsychosocial model. Spinal Cord, 1-6. doi:10.1038/sc.2016.137   
  
Jaclyn Lennon Papadakis, Kathy Zebracki ,Kathleen M. Chlan,& Lawrence C. Vogel (2017). Sexuality in Pediatric Spinal Cord Injury. Top Spinal Cord Inj Rehabil 2017;23(1):42–48.doi: 10.1310/sci2301-42   
  
Abstracts and Presentations:   
  
Zebracki K, Chlan KM, Vogel LC. Employment and earnings in adults with pediatric-onset spinal cord injury. (Award-Eligible Poster/Oral Presentation – First Prize). Presented at the 38th Annual Meeting of the American Spinal Injury Association, Denver, CO. Top Spinal Cord Inj Rehabil. 2012; 18 (Suppl 1):210.   
  
Chlan KM, Vogel LC, Zebracki K. Medical complications and aging in adults with pediatric-onset SCI. Employment and earnings in adults with pediatric-onset spinal cord injury. (Oral Presentation). Presented at the 38th Annual Meeting of the American Spinal Injury Association, Denver, CO. Top Spinal Cord Inj Rehabil. 2012; 18 (Suppl 1):223   
  
Zebracki K, Chlan KM, Vogel LC. Adult outcomes in childhood-onset spinal cord injury. (Poster). Pediatric Academic Societies 2012. Boston, MA.   
  
Chlan KM, Vogel LC, Zebracki K. Medical complications and aging in adults with pediatric-onset SCI. (poster) PVA Summit 2012. September 2012, Las Vegas Nevada   
  
Zebracki K, Chlan K, Vogel LC. (2012). Effect of mobility on long-term outcomes of childhood-onset tetraplegic spinal cord injury. Presented at the Annual Meeting of the International Spinal Cord Society, London, UK.   
  
Zebracki, K., January, A., Chlan, K., Hwang, M., Wasserman, R., & Vogel, L. (2012, November). Long-term mental health outcomes of individuals with childhood-onset spinal cord injury. Presentation at the Howard H. Steel Conference Pediatric Spinal Injuries and Dysfunction, Orlando, FL.   
  
Vogel, L., Zebracki, K., Chlan, K., Hwang, M., Wasserman, R., & January, A. (2012, November). Long-term outcomes of individuals with childhood-onset spinal cord injury. Presentation at the Howard H. Steel Conference Pediatric Spinal Injuries and Dysfunction, Orlando, FL.   
  
Chlan, K., Zebracki, K., & Vogel, L. (2013, May). Sexual intimacy in adults with pediatric-onset spinal cord injury. Awards Eligible Poster session at the 40th Annual Scientific Meeting of the American Spinal Injury Association, Chicago, IL. Top Spinal Cord Inj Rehabil. 2013; (Suppl 1):10.   
  
January, A., Zebracki, K., Chlan, K., Hwang, M., & Vogel, L. (2013, May). Change in depression scores over time for individuals with pediatric-onset spinal cord injury. Presentation at the 40th Annual Scientific Meeting of the American Spinal Injury Association, Chicago, IL. Top Spinal Cord Inj Rehabil. 2013; (Suppl 1):30.   
  
Hwang, M., Zebracki, K., Chlan, K., & Vogel, L. (2013, May). Longitudinal changes in medical complications in adults with pediatric-onset spinal cord injury. Presentation at the 40th Annual Scientific Meeting of the American Spinal Injury Association, Chicago, IL. Top Spinal Cord Inj Rehabil. 2013; (Suppl 1):30.   
  
Chlan, K., Zebracki, K., & Vogel., L. (2013, August). Sexual intimacy in adults with pediatric-onset spinal cord injury. Poster session at the Paralyzed Veterans of America Summit 2013, Orlando, FL.   
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. (2013, September). Violent etiology and associated outcomes in pediatric-onset spinal cord injury. Poster session at the 2013 Annual Meeting of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV.   
  
Zebracki, K., Chlan, K., & Vogel, L. (2013, October). Employment status of adults with pediatric-onset spinal cord injury. Presentation at the 52nd Annual Scientific Meeting of the International Spinal Cord Society, Istanbul, Turkey.   
  
Hwang, M., Zebracki, K., Chlan, K., & Vogel, L. Longitudinal employment outcomes in adults with pediatric-onset spinal cord injury. (40th Annual Scientific Meeting of the American Spinal Injury Association 2014, presentation).   
  
Zebracki, K., Holbein, C., Chlan, K., & Vogel, L. Dating and relationships in adults with pediatric-onset spinal cord injuries. (40th Annual Scientific Meeting of the American Spinal Injury Association 2014, presentation).   
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. Understanding personal growth and resiliency in response to pediatric-onset spinal cord injury. (40th Annual Scientific Meeting of the American Spinal Injury Association 2014, poster).   
  
Holbein, C., Zebracki, K., Chlan, K, & Vogel, L. Romantic relationship involvement and sexual activity in adults with pediatric-onset spinal cord injury. (Society of Pediatric Psychology Annual Meeting 2014, poster).   
  
Zebracki, K, Hwang, M., Chlan, K., & Vogel, L. Employment over time in adults with pediatric-onset spinal cord injury. (Paralyzed Veterans of America’s Summit 2014, poster).   
  
Hwang M, Zebracki K, Chlan KM, Vogel LC. Longitudinal changes in medical complications in adults with pediatric-onset spinal cord injury. (Academy of Spinal Cord Injury Professionals Educational Conference 2014, presentation). Recipient of Bors Award.   
  
Zebracki, K., Murray, C., Chlan, K., Moss, A., & Vogel, L. Pain and psychosocial outcomes in adults with pediatric-onset spinal cord injury. (t 4th International Spinal Cord Society and American Spinal Injury Association Joint Scientific Meeting 2015, poster).   
  
January, A., Zebracki, K., Chlan, K., & Vogel, L. The clinical significance of sleep quality for adults with pediatric-onset spinal cord injury (American Academy of Cerebral Palsy and Developmental Medicine 68Th Annual Meeting 2015, poster).   
  
Vogel, L, Zebracki, K., & Chlan, K.. Fertility in adults with pediatric-onset spinal cord injury. Presentation at the (Academy of Spinal Cord Injury Professionals Annual Conference and Expo 2015, presentation).   
  
January AM, Zebracki K, Chlan KM, Vogel LC. Poor sleep in adults with pediatric onset spinal cord injury: associations with pain, health, and activity. Presentation at the 42nd Annual Scientific Meeting of the American Spinal Injury Association, Philadelphia. Top Spinal Cord Injury Rehabil 2016, 22:S21. (Suppl 1).   
  
Hartley N, Zebracki K, Chlan KM, Vogel LC. Mental health utilization by adults with pediatric onset spinal cord injury. Poster at the 42nd Annual Scientific Meeting of the American Spinal Injury Association, Philadelphia. Top Spinal Cord Injury Rehabil 2016, :S66-67. (Suppl 1).   
  
Chlan, K., Zebracki, K., & Vogel, L. (2016, August). Parenting and fertility in middle adulthood following pediatric-onset spinal cord injury. Poster presentation at the Paralyzed Veterans of America Summit 2016 + Expo, Orlando, FL.   
  
Kurapati, N., Zebracki, K., Chlan, K., & Vogel, L. (2017, April). Income-to-needs ration on healthcare utilization and long-term outcomes in adults with pediatric-onset spinal cord injury. Poster session at the Howard H. Steel Pediatric Precourse of the 2017 Annual Scientific Meeting of the American Spinal Injury Association, Albuquerque, NM.   
  
Fernandes, N., Zebracki, K., Chlan, K., & Vogel, L. (2017, April). Areas of post-traumatic growth following pediatric-onset spinal cord injury. Poster session at the Howard H. Steel Pediatric Precourse of the 2017 Annual Scientific Meeting of the American Spinal Injury Association, Albuquerque, NM.   
  
January, A., Kirk, S., Zebracki, K., Chlan, K., & Vogel, L. (2017, April). Violent etiology as an indicator of risk in pediatric-onset spinal cord injury. Presentation at the Howard H. Steel Pediatric Precourse of the 2017 Annual Scientific Meeting of the American Spinal Injury Association, Albuquerque, NM.

***Kathy Zebracki, PhD***  
Shriners Hospitals for Children

*(no CV uploaded)*

***Paul Kennedy,***   
Deceased; The National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Lawrence Vogel, MD***  
Shriners Hospitals for Children

*(no CV uploaded)*

**26**

**Malnutrition after spinal cord injuries: a systematic review**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
Evidence of Esteem   
2010: Nutrition Society: Postgraduate Competition Award   
2010: Hospital Infection Society: The Mike Emmerson Young Investigator’s Award   
2011: Buckinghamshire Healthcare NHS Trust: Staff Award: winner of the Courteous and Professional category   
2012: International Spinal Cord Society: Spinal Cord Prize – Silver Medal   
2013: American Spinal Injury Association meeting: Award papers / posters   
2013: ESPEN: Outstanding abstract (8 out of 576 accepted abstracts)   
2013: International Spinal Cord Society: Award paper (2nd place)   
2014: The Rose Simmond’s Award, the British Dietetic Association.   
2015: Spinal Injury Association, shortlisted candidate for the Award for Innovation and Research   
2017: New member spotlight – American Spinal Injury Association.   
Project Grants   
Aventis Pharma Limited 2008-09; (£3000).Wong SS (CI) et al Spinal Clinic for Obesity Outpatient Project.   
Abbott Nutrition 2009-11 (£15,000). Wong SS (CI) et al. Nutritional status in patient with spinal cord injury: a cross sectional, multi centre study.   
Hospital Infection Society 2010-12 (£10,000) & Yakult 2009-11 (£5,000) Wong SS (CI), et al. Do probiotics prevent antibiotics associated diarrhoea in SCI patients: a randomised controlled trial   
Waterloo Foundation (£9,091) & Abbott Nutrition 2010-12 (£9,091) Wong SS (CI), et al. A single centred study of the nutritional status of paediatric patients with spinal cord injuries: An Observational study.   
Buckinghamshire Healthcare NHS Trust (£10,000) Wong SS (CI), et al. Enhanced Pressure ulcers Recovery Programme (E PREP): A pilot study on the effect of specialised amino acid supplements in the management of pressure ulcers in patients with spinal cord injuries: a double-blinded, randomised, placebo-controlled trial   
Yakult Europe 2014-2016 (£345,793) Wong S (CI), Jamous A, O’Driscoll J, Hirani SP, Whelan K & Forbes A. Efficacy of Consuming Lactobacillus casei Shirota (LcS) In Spinal cord injury Patients (ECLISP) Effect of probiotics on gastrointestinal function in patients with spinal cord injuries: a multicentre, randomised, double-blinded, placebo-controlled trial.   
Buckinghamshire Healthcare NHS Trust (£15,000) Gainullina I, Graham A, Saif M & Wong S. Efficacy of ergocalciferol supplementation on urine calcium among patients with spinal cord injury: a randomised double-blinded, placebo-controlled trail.   
Equipment grants   
Buckinghamshire Healthcare NHS Trust’s Charitable Trust Fund (2014) Purchase of Quark RMR, Indirect calorimetry. COSMED SRL, Rome, Italy. (£24,989)   
Total research income (2007 – 2014) inclusive £ 476,714   
Conferences, symposia and workshops   
Co-ordination and management of research symposia and teaching workshops   
Since 2012 – Samford organise annual nutrition study day for covering nutritional Needs of Patients Following Spinal Cord Injury, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Invited lecturer   
2011 – (present) – teaching in UCL MSc: Clinical Nutrition module in Spinal Cord Injuries   
2012 March – Development and validation of Spinal Nutrition Screening Tool in patients with spinal cord injuries. University College London Medical Grand Round   
2012 November – Do probiotics prevent antibiotic-associated diarrhoea in patients with spinal cord injuries: a randomized controlled trial: an interim analysis. FIS / HIS 2012 conference, Liverpool ACC.   
2013 April – Patient and Public Involvement in Clinical Research. University of Aberdeen / Medical Research Council, Aberdeen, Scotland   
2014 November – Do probiotic prevent antibiotic-associated diarrhoea in patients with spinal cord injuries – a RCT. FIS / HIS 2014 conference, Lyon, France.   
2015 April – International Probiotic Study Day, Yakult Europe, Berlin, Germany.   
2016 November – Shirota Conference, Tokyo, Japan   
Book / Guideline contribution   
1.MASCIP (Multidisciplinary Association for Spinal Cord Injury Profession) (2010) Guidelines on rehabilitation of older adult with spinal cord injury – Wong S (2010) Chapter on Nutrition www.mascip.co.uk accepted, launched in Nov MASCIP conference   
2.International Spinal Cord Society (2012) E-learning modules – Nutritional management after spinal cord injuries (Basic and Advanced module) – Kovindha A, Wong S, Baumann W, et al. http://www.elearnsci.org/ http://www.elearnsci.org/intro.aspx?id=5&category=Doctors   
3. British Society of Rehabilitation Medicine (BSRM) (2012) Nutritional management in neuro- rehabilitation for UK national registrar training. Wong S, Spillman L & Graham A (2012)   
4. British Dietetics Association (2014) Manual of Dietetics Practice, 5th Edition – Twist A & Wong S (2014) Spinal Cord Injuries. Wiley Blackwell   
5. Consortium for Spinal Cord Medicine (2014) Pressure ulcer prevention and treatment following injury: A clinical practice guideline for health-care providers, 2nd Edition. Wong S - Nutrition section.   
6. MASCIP (2014-16) Weight management guideline for individuals with spinal cord injuries – Wong S (Guideline Chair), Bearne P, Fitzsimons L, Graham A, Taylor C, Twist A, Smith E.   
7. International Spinal Cord Society (ISCOS) (2014/5) ISCOS text book - Nutritional management after spinal cord injuries. Kovindha A &Wong S   
8. British Dietetics Association (2016) Advanced Nutrition and Dietetics in Nutrition Support – Wong S (2015) Spinal Cord Injuries.   
  
Recent peer-reviewed publications:   
1. Wong S, et al (2011) Spinal Clinic for Obese Out-patient Project (SCOOP) – a 1 year report. Food Nutr Sci 2, 901-7   
2. Wong S, et al (2012) How do spinal cord injury centres manage malnutrition? A cross-sectional survey of 12 SCIC in the UK and Ireland. Spinal Cord 50, 132-5.   
3. Wong S, et al (2012) The prevalence of malnutrition in spinal cord injured patients - a UK multicentre study. Br J Nutr 108, 918-923.   
4. Wong S, et al (2012) Validation of the Spinal Nutrition Screening Tool (SNST) in patients with spinal cord injuries (SCI)-result form a multicentre study. Eur J Clin Nutr 66, 382-7.   
5. Wong S, et al (2012) Profile and prevalence of malnutrition in children with spinal cord injuries - assessment of the Screening Tool for Assessment in Paediatrics (STAMP). Spinal Cord 50, 67-71.   
6. Wong S, et al (2012) An audit to assess awareness and knowledge of nutrition in a UK spinal cord injuries centre. Spinal Cord 50, 446-451.   
7. Wong S, et al (2012) Meal provision in a UK National Spinal Injury Centre – a qualitative audit of service users and stakeholders. Spinal Cord 50, 772-777.   
8. Wong S, et al (2013) Validation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP) in patients with spinal cord injuries (SCI), Spinal Cord 51, 424-429.   
9. Wong S, et al (2013) Nutritional supplement use in patients admitted to spinal cord injury centre, J Spinal Cord Med 36, 645-651.   
10.Wong S, et al (2013) Morbid obesity after spinal cord injury: an ailment not to be treated?   
Eur J Clin Nutr 67, 998-999   
11. Wong S, et al (2014) A Lactobacillus casei Shirota probiotic drink reduces antibiotic-associated   
diarrhoea in patients with spinal cord injuries: a randomised controlled trial. Br J Nutr 111, 672-678.   
12. Wong S, et al (2014) IS nutritional risk associate with adverse clinical outcomes in spinal cord injured   
patients admitted to a spinal centre? Eur J Clin Nutr 68, 125-130.   
13. Wong S (2014) Malnutrition after spinal cord injury. Network Health Dietitian 90, 27-29.   
14. Wong S, et al (2015) Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal   
cord injuries: an international survey. Spinal Cord 53, 24-31.   
15. Wong S, et al (2015) Review of dietetic service provision and activity in spinal cord injury centres: a multicentre survey in the UK   
and Republic of Ireland. Spinal Cord 53, doi: 10.1038/sc.2015.83   
16. Wong S et al (2015) Survey on the use of probiotics in preventing antibiotic associated diarrhoea and Clostridium difficile   
associated diarrhoea in spinal cord injuries centres. Int J Probiotcs and Prebiotics 10, 85-90.   
17. Hughes L, Wong S (2015) Nutritional Support and Spinal Cord Injuries. Complete Nutrition 15: 11-14.   
18. Wong S, et al (2015) Effectiveness of probiotic in preventing antibiotic associated diarrhoea and / or Clostridium difficile   
associated diarrhoea in patients with spinal cord injury: a study protocol for a systematic review of randomised controlled   
trials. Syst Review 4, 170.   
19. Wong S, et al (2017) Use of antibiotic and prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: a   
UK national spinal injury centre experience. Spinal Cord 2017 Jan 31: doi: 10.1038/sc.2016.193 [Epub ahead of print]   
20. Wong S, et al (2017) Effectiveness of probiotic in preventing antibiotic associated diarrhoea (AAD) and Clostridium difficile   
associated diarrhoea (CDAD) in patients with spinal cord injury: A systematic review. Int J Probiotics and Prebiotics 12, 115-122.   
21. Wong S, Santullo P, Hirani SP et al (2017) Use of antibiotics and the prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: an international, multi-centre study. J Hosp Infect 97, 146-152.

***Noureddine Kenssous, BSc (Hons)***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Sarah Lewis, MSc***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Ali Jamous, MD***  
Royal Buckinghamshire Hospital

*(no CV uploaded)*

***Mofid Saif, MD., FRCS., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

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**Cerebrovascular reactivity and cognitive function are impaired following chronic high-thoracic spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Karina Chornenka,***   
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Personal Statement   
  
I am currently a second year medical student at the University of British Columbia and very early in my clinical experience and research endeavors. My previous research experience includes my involvement in a summer research studentship at the Hospital for Sick Children in Toronto, Ontario where I helped create an in vitro model to test p53 functional restoration following CRISPR/Cas9 repair of heterozygous TP53 mutations in Li-Fraumeni Syndrome patient-derived fibroblasts. Currently, I am supervised by Dr. Krassioukov at the International Collaboration On Repair Discoveries where I am studying the long-term cognitive and cerebrovascular consequences of spinal cord injury. I am very excited to continue to incorporate research into my medical training and future clinical career.   
  
Short CV   
  
POSITIONS:   
  
January 2017-present   
Research Assistant, International Collaboration on Repair Discoveries (ICORD), Faculty of Medicine, University of British Columbia – supervised by Dr. Krassioukov   
  
June 2016-August 2016   
Summer Research Student, Institute of Medical Sciences, University of Toronto – supervised by Dr. David Malkin, The Hospital for Sick Children, Toronto, Ontario, Canada   
  
PRESENTATIONS:   
  
Chornenka, K., Jia, M., Golbidi, S., Zi Zheng, M.M., Laher I., Phillips A.A., Krassioukov A.V. Endothelial Health in Femoral Artery is Improved with Long-term Passive Exercise in High-thoracic Spinal Cord Injury. ICORD Trainee Symposium. June 12 2017. Vancouver BC.   
  
Chornenka, K., Tran, J., Malkin, D. A sensitive assay for measuring p53 pathway induction for CRISPR/Cas9 mediated gene repair in Li-Fraumeni Syndrome patient-derived fibroblasts. UBC Students in Health Annual Research Conference. October 17 2016. Vancouver BC.   
  
Chornenka, K., Tran, J., Malkin, D. A sensitive assay for measuring p53 pathway induction for CRISPR/Cas9 mediated gene repair in Li-Fraumeni Syndrome patient-derived fibroblasts. Institute of Medical Sciences Summer Undergraduate Research Program Research Day. August 17 2016. Toronto ON.   
  
Chornenka, K., Tran, J., Malkin, D. A sensitive assay for measuring p53 pathway induction for CRISPR/Cas9 mediated gene repair in Li-Fraumeni Syndrome patient-derived fibroblasts. The SickKids Summer Research Program Poster Symposium. August 10 2016. Toronto ON.   
  
  
AWARDS   
  
2017   
Summer Student Research Program Award, Faculty of Medicine, University of British Columbia, Vancouver, BC   
  
2016   
Undergraduate Research Opportunity Program (UROP) Award, Institute of Medical Science, University of Toronto, Toronto, ON

***Mengyao Jia, B.Sc.***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Aaron Phillips, PhD***  
Physiology and Pharmacology, Cumming School of Medicine, Libin Cardiovascular Institute, Hotchkiss Brain Institute, University of Calgary

*(no CV uploaded)*

***Shaoxun Wang, M.Sc.***  
Department of Pharmacology & Toxicology, the University of Mississippi Medical Center

*(no CV uploaded)*

***Andrew Yung, M.Sc.***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Mei Mu Zi Zheng, M.Sc.***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Sarah Leong, B.Kin.***  
University of British Columbia

*(no CV uploaded)*

***Piotr Kozlowski, M.Sc., Ph.D.***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Fan Fan, MD, MS***  
Department of Pharmacology & Toxicology, the University of Mississippi Medical Center

*(no CV uploaded)*

***Richard Roman, PhD***  
Department of Pharmacology & Toxicology, the University of Mississippi Medical Center

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

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**Non-invasive cervical electrical stimulation for SCI**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Yu-Kuang Wu, PT, PhD***  
James J. Peters Vamc, Icahn School of Medicine at Mount Sinai

*(no CV uploaded)*

***Tiffany Santiago, BS***  
James J. Peters Vamc

*(no CV uploaded)*

***Sana Saeed, BS***  
James J. Peters Vamc

*(no CV uploaded)*

***James LiMonta, BS***  
James J. Peters Vamc

*(no CV uploaded)*

***Lok Yung, MD***  
James J. Peters Vamc

*(no CV uploaded)*

***Shivani Kastuar, BS***  
Icahn School of Medicine at Mount Sinai

*(no CV uploaded)*

***Jasmeen Hussain, BS***  
James J. Peters Vamc

*(no CV uploaded)*

***Kenneth Guber, BA***  
James J. Peters Vamc

*(no CV uploaded)*

***Joseph Weir, PhD***  
University of Kansas

*(no CV uploaded)*

***Jason Carmel, MD, PhD***  
Burke Medical Research Institute

*(no CV uploaded)*

***Noam Harel, MD, PhD***  
James J. Peters Vamc, Icahn School of Medicine at Mount Sinai

**CV:**  
NAME: Noam Y. Harel, MD, PhD   
eRA COMMONS USER NAME (credential, e.g., agency login): nyharel   
POSITION TITLE: Associate Professor, Neurology and Rehabilitation Medicine (Sinai); Staff Physician (VA)   
EDUCATION/TRAINING   
  
University of Pennsylvania, Philadelphia, Pa. B.A. 05/1992 Biology   
University of Pennsylvania, Philadelphia, Pa. Ph.D. 12/1998 Molecular Biology   
University of Pennsylvania, Philadelphia, Pa. M.D. 05/2000 Medicine   
Pennsylvania Hospital, Philadelphia, Pa. 06/2001 Internal Medicine   
New York-Presbyterian Hospital, New York, NY   
(Columbia) 06/2004 Adult Neurology   
  
A. Personal Statement   
My education, research, and clinical experiences over the past 25 years have thoroughly prepared me to conduct clinical research projects in the field of neurorehabilitation. I previously applied my background in molecular biology toward basic research in motor neuron disease and spinal cord injury using cellular and animal models. At the bench, I investigated the role played by the Nogo pathway in neuronal survival and plasticity, and the ability of combined exercises targeted at corticospinal and brainstem motor pathways to improve recovery from central nervous system injury in rodent models.   
I more recently shifted toward translating this work to human patients. At the Sinai-affiliated James J. Peters VA Medical Center, I currently run five IRB-approved human subject protocols, including two clinical trials (NCT01740128 and NCT02469675). These studies focus on using targeted exercises and non-invasive stimulation to improve transmission along spared circuits after spinal cord injury and amyotrophic lateral sclerosis. To conduct these studies, I have implemented neurophysiological assessments and interventions using electromyography, transcranial magnetic stimulation (TMS), computerized posturography, and a novel form of cervical electrical stimulation. This work has already led to funding from the VA’s Office of Rehabilitation Research & Development, New York State Department of Health, and private foundations. Roughly 70% of my time is spent on research, and 25-30% on clinical work plus teaching.   
I am honored at the opportunity to participate in the NeuroNEXT network through Mount Sinai. I would contribute with expertise and productivity from both my basic and clinical human research perspectives. As described in more detail in my Letter of Support, I am in excellent position to connect the PIs Drs. Miller and Hormigo to other investigators from Sinai Departments of Rehabilitation Medicine and Radiology with whom I collaborate. These ties will further enhance our site’s ability to make new advances. Crucially, through the Sinai-affiliated VA and several other VA-collaborating sites, I have access to additional patient populations that could contribute to larger clinical trials.   
Peer-reviewed publications that specifically highlight my qualifications for this project   
1. Harel NY, Carmel JB. (2016). Paired stimulation to promote lasting augmentation of corticospinal circuits. Neural Plasticity, Epub Oct 9. PMID: 27800189.   
2. Harel, N.Y., Martinez, S.A., Knezevic, S., Asselin, P.K., Spungen, A.M. (2015). Acute changes in soleus H-reflex facilitation and central motor conduction after targeted physical exercises. J. Electromyogr. Kinesiol 25:438-43. PMID: 25771437.   
3. Harel, N.Y., Yigitkanli, K., Fu, Y., Cafferty, W.B., Strittmatter, S.M. (2013). Multimodal exercises simultaneously stimulating cortical and brainstem pathways after unilateral corticospinal lesion. Brain Res. 1538:17-25. PMID 24055330. PMCID: PMC3873870.   
  
B. Positions and Honors   
Positions and Employment   
2004-2005 Research Fellow, Department of Neurology, Yale University, New Haven, CT   
2005-2010 Instructor, Department of Neurology, Yale University, New Haven, CT   
2009-2011 Director, Yale Neurology Spinal Cord Injury/Neurorehabilitation Program   
2010-2011 Assistant Professor, Department of Neurology, Yale University, New Haven, CT   
2011-2015 Assistant Professor, Department of Neurology, Mount Sinai, New York, NY   
2011- Staff Physician, Rehabilitation R&D, James J. Peters VAMC, NY   
2012-2015 Assistant Professor, Dept. of Rehabilitation Medicine, Mount Sinai, New York, NY   
2016- Associate Professor, Depts. of Neurology and Rehabilitation Medicine, Mount Sinai, New York   
  
Other Experience and Professional Memberships   
2002- American Academy of Neurology (Neural Repair and Rehabilitation section; Neurorehabilitation Topic Work Group committee)   
2005- ABPN certification in Adult Neurology   
2008- American Society of Neurorehabilitation (Board of Directors 2016-; Education Committee 2016-)   
2011-2014 Member, Institutional Review Board, James J. Peters VA Medical Center, Bronx NY   
2012- UCNS subspecialty certification in Neural Repair and Rehabilitation   
2013- American Neurological Association   
2014- Member, Early Career Reviewer program, NIH Center for Scientific Review   
2015- Physician Safety Monitor, multicenter exoskeletal-assisted walking trial (NCT02314221)   
2016- Grant reviewer, SCI and Neuropathic Pain study section (VA RRDA)   
2016- Grant reviewer, Paralyzed Veterans of America   
  
Honors   
1993 NIH Medical Scientist Training Program awardee, U. of Pennsylvania, Phila. PA   
2000 Stuart Mudd Award for excellence and creativity in microbiology, U. of Pennsylvania, Phila. PA   
2002 Arnold Gold Humanism and Excellence in Teaching Award, Hon. Mention, Columbia P&S, NY   
2003 Arnold Gold Humanism and Excellence in Teaching Award, Nomination, Columbia P&S, NY   
2004 Arnold Gold Humanism and Excellence in Teaching Award, Winner, Columbia P&S, NY   
2008 Scholarship to attend NINDS Clinical Trials Methods Course in Vail, CO.   
2008 Scholarship to attend ANA Career Development Symposium in Salt Lake City, UT.   
2010 Scholarship to attend ANA Career Development Symposium in San Francisco, CA.   
  
C. Contribution to Science   
  
1. Nogo’s role in neuron survival and degeneration   
The Nogo protein is best known for its role in inhibiting neural regeneration and plasticity when it is expressed on central nervous system oligodendrocyte surfaces. However, the bulk of Nogo expression is in fact intra-neuronal, where its role had been less understood. In a combination of experiments using cell culture, protein biochemistry, confocal fluorescence microscopy, and animal genetics, I helped elucidate neuronal Nogo’s role in intracellular trafficking, as well as its effect within a mouse model of ALS. I also designed and optimized an immunoassay for detecting soluble Nogo protein within human and rodent serum samples. This work earned a K08 award from NINDS. I was first or co-first author on several publications related to this project, with mentorship from Stephen M. Strittmatter.   
a. Harel, N.Y., Strittmatter, S.M. (2007). Nogo-A marks motor neuron disease. Ann Neurol. 62(1): 1-2. PMCID: PMC2323439.   
b. Yang, Y.S.\*, Harel, N.Y.\*, Strittmatter, S.M. (2009). Reticulon-4A (Nogo-A) redistributes protein disulfide isomerase to protect mice from SOD1-dependent amyotrophic lateral sclerosis. J Neurosci., 29(44):13850-9. PMCID: PMC2797811.   
c. Harel, N.Y., Cudkowicz, M.E., Brown, R.H., Strittmatter, S.M. (2009). Serum Nogo-A levels are not elevated in amyotrophic lateral sclerosis patients. Biomarkers, 14(6):414-7. PMCID: PMC2842187.   
  
2. Imaging and targeting spared circuits in animal models of spinal cord injury   
Most spinal injuries, as well as other injuries to the central nervous system, spare a percentage of neuronal tissue. Identifying spared circuits and strengthening spared synapses remains the most feasible approach to improving outcomes. I approached this mission in rodent models using genetic manipulations, physical exercises targeted at specific circuits, and diffusion tensor imaging, leading to several publications as first or co-author. Most significantly, I designed and implemented a novel combination of physical exercises in mice targeted at activating corticospinal pathways, brainstem pathways, or both, and demonstrated that the multimodal combination may improve recovery in mouse models of central nervous system injury. These studies provided an approach that could be directly translated toward human patients.   
a. Harel, N.Y., Song, K.H., Tang, X., Strittmatter, S.M. (2010). Nogo receptor deletion and multimodal exercise improve distinct aspects of recovery in cervical spinal cord injury. J Neurotrauma, 27(11):2055-66. PMCID: PMC2978056.   
b. Wang, X., Duffy, P., McGee, A.W., Hasan, O., Gould, G., Tu, N., Harel, N.Y., Huang, Y., Carson, R.E., Weinzimmer, D., Ropchan, J., Benowitz, L.I., Cafferty, W.B., Strittmatter, S.M. (2011). Recovery from chronic spinal cord contusion after nogo receptor intervention. Ann Neurol., 70(5):805-21. PMCID: PMC3238798.   
c. Harel, N.Y., Yigitkanli, K., Fu, Y., Cafferty, W.B., Strittmatter, S.M. (2013). Multimodal exercises simultaneously stimulating cortical and brainstem pathways after unilateral corticospinal lesion. Brain Res., 1538:17-25. PMID 24055330. PMCID: PMC3873870.   
d. Kelley, B.J., Harel, N.Y., Kim, C.Y., Papademetris, X., Coman, D., Wang, X., Hasan, O., Kaufman, A., Globinsky, R., Staib, L.H., Cafferty, W.B., Hyder, F., Strittmatter, S.M. (2014). Diffusion tensor imaging as a predictor of locomotor function following experimental spinal cord injury and recovery. J Neurotrauma, 31(15):1362-73. PMCID: PMC4120934.   
  
3. Translating the Hebbian approach to spinal cord injury rehabilitation in humans   
Since joining the VA, I have focused on translating the multimodal (corticospinal and brainstem-activating physical exercises) program initially tested in mice toward humans with SCI. With Career Development Award funding from the VA’s Office of Rehabilitation Research & Development, I initiated a clinical trial comparing multimodal exercises to weight-supported treadmill exercise in subjects with incomplete thoracic and lower cervical injury (NCT01740128). That trial is nearly complete. I also adapted a computerized posturography system typically used for standing subjects into a method for measuring seated balance outcomes in paraplegic subjects. Finally, I initiated a clinical study investigating the use of paired transcranial magnetic and cervical electrical stimulation to strengthen spared synapses between upper and lower motor neurons in subjects with incomplete cervical spinal injury or ALS (NCT02469675).   
a. Harel, N.Y., Asselin, P.K., Fineberg, D.B., Pisano, T.J., Bauman, W.A., Spungen, A.M. (2013). Adaptation of computerized posturography to assess seated balance in persons with spinal cord injury. J Spinal Cord Med., 36(2):127-33. PMCID: PMC3595960.   
b. Harel, N.Y., Martinez, S.A., Knezevic, S., Asselin, P.K., Spungen, A.M. (2015). Acute changes in soleus H-reflex facilitation and central motor conduction after targeted physical exercises. J. Electromyogr. Kinesiol., 25(3):438-43. PMID: 25771437.   
c. Harel, N.Y., Carmel, J. B. (2016). Paired stimulation to promote lasting augmentation of corticospinal circuits. Neural Plasticity, Epub Oct 9. PMID: 27800189.   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/noam y..harel.1/bibliography/40097547/public/?sort=date&direction=descending   
  
  
D. Research Support   
Ongoing Research Support   
C30599 Harel (PI) 11/01/15-10/30/17   
New York Spinal Cord Injury Research Board $391,353   
Augmenting hand muscle control in cervical SCI through paired cortical and cervical stimulation   
Testing efficacy of different combinations of paired magnetic cortical and electrical nerve stimulation in improving neural transmission to hand muscles in subjects with chronic incomplete cervical spinal cord injury (SCI).   
Role: PI   
  
B2020-C Bauman (PI) 07/2016 – 06/2021   
VA RR&D $4,500,000   
National Center of Excellence for the Medical Consequences of Spinal Cord Injury   
This grant funds work on the secondary medical consequences of SCI. It also involves an exoskeletal-assisted walking program in which neurological outcomes such as ASIA scores and balance are measured. None of the work involves electrical stimulation.   
Role: Auxiliary Investigator   
  
C31291 Martin (PI) 08/2016-07/2021   
New York Spinal Cord Injury Research Board $3,737,948   
Combined motor cortex and spinal cord stimulation to promote arm and hand function after chronic cervical spinal cord injury   
Translational project testing combination of cortical stimulation with direct-current cervical stimulation to improve neurophysiological transmission and function of arm and hand muscles after spinal cord injury. Invasive approach in rodent and feline SCI models, non-invasive approach in humans with SCI. I am leading the human phase.   
Role: Site PI   
  
457648 Harel (PI) 08/2017-07/2019   
Craig H. Neilsen Foundation $292,211   
Noninvasive cervical electrical stimulation for SCI   
Aim 1: Map the cellular and synaptic targets of cervical electrical stimulation (CES). Aim 2: Determine optimal CES parameters for acutely facilitating concurrent wrist and hand movements.   
Role: PI

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**Intermittent catheterization: The devil is in the details**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Kathleen Christison, RN, CNCC(C), BScN***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Position Title:   
Award recipient of the University of British Columbia – Faculty of Medicine Summer Student Research Program (FoM SSRP), working with the Autonomic Research Unit, ICORD; 2nd year MD student, Northern Medical Program, University of British Columbia; Registered Nurse and Certified Nurse in Critical Care (Canada).   
  
A. Personal Statement   
My research began the summer of 2017 with the Autonomic Research Unit of the International Collaboration On Repair Discoveries (ICORD). Together with Dr. Matthias Walter and Dr. Andrei Krassioukov I helped to evaluate the data behind conclusions made by the 2014 Cochrane review and to update evidence by initiating a current systematic review and meta-analysis. We focused first on a critical review of the current Cochrane review entitled “Intermittent catheterisation for long-term bladder management” followed by the initiation of our own systematic review and meta-analysis. My role for the FoM 2017 SSRP involved comparing data extracted by the Cochrane review against data reported by original trials, comparing the definition of UTI used by authors in the review with current literature, assisting with data reanalysis and writing of the resulting manuscript to summarize our findings. Once this portion of the project was completed, I also began steps to conduct our own systematic review and meta-analysis on intermittent catheterization for long-term bladder management in individuals with spinal cord injury which is ongoing.   
  
B. Positions and Honors   
Positions   
2011-2012   
Registered Nurse, Intensive Care Unit, University Hospital of Northern BC, Northern Health.   
2013-2016   
Registered Nurse, Intensive Care Unit and Post Anaesthetic Recovery Room, Lion’s Gate Hospital, Vancouver Coastal Health.   
2014-2015   
Registered Travel Nurse – British Columbia, Intensive Care/ Critical Care, Solutions Staffing Inc.   
  
Honors/Appointments   
2006   
Governor General’s Bronze Academic Medal, The Chancellery of Honours   
2007   
BC Innovation Council Science Achievement Award, BC Innovation Council   
2007-2011   
UNBC Scholar, University of Northern British Columbia   
2016-Present   
  
2017   
Co-Lead, Community Health Initiative of Northern University and College Students   
Award recipient of the University of British Columia – Faculty of Medicine Summer Student Research Program (FoM SSRP) for work with the Autonomic Research Unit, ICORD   
2017-Present   
  
2017-Present   
Northern Medical Program Student Representative, Rural Medicine Interest Group, UBC Medical Undergraduate Society   
Year II Student Representative, Years 1 and 2 Subcommittee, UBC Faculty of Medicine, MD Undergraduate Program   
2017-Present   
Year II Student Representative, Pre-Clinical Education Advisory Committee, Northern Medical Program   
2017-Present   
Student Representative - Program Evaluation, Planning and Improvement Subcommittee, UBC Faculty of Medicine, MD Undergraduate Program.   
2017-Present   
Vice President Academic, UBC Medicine 2020 Class Council

***Matthias Walter, MD, FEBU***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Jean-Jacques Wyndaele, MD, PhD, FEBU***  
Department of Urology, University of Antwerp

*(no CV uploaded)*

***Michael Kennelly, MD, FACS***  
Department of Urology, Carolinas Medical Center

*(no CV uploaded)*

***Thomas Kesslerr, MD, FEBU***  
Neuro-Urology, Spinal Cord Injury Center & Research, Balgrist University Hospital

*(no CV uploaded)*

***Vanessa Noonan, MSc, PhD, PT***  
Rick Hansen Institute

*(no CV uploaded)*

***Nader Fallah, PhD***  
Rick Hansen Institute

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

**30**

**: Longitudinal recovery and reduced costs after 120 sessions of locomotor training for motor incomplete spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Sarah Morrison, PT, MBA, MHA***  
Shepherd Center, Inc

**CV:**  
Sarah Morrison   
  
  
PROFESSIONAL EXPERIENCE   
  
Shepherd Center, Inc., Atlanta, Georgia   
  
Vice President of Clinical Services, 2012–Present   
Provide executive leadership for day-to-day operations of a 152-bed free standing non-profit hospital along with three off-site outpatient programs. Ensure Shepherd Center’s strategic initiatives are carried out through daily activities. Established and managed over 90 operational budgets.   
  
Director of Spinal Cord Injury Services, 2007–2013   
Planned, coordinated, and executed all clinical operations specific to the Spinal Cord Injury Program. Led the Spinal Cord Injury Program, including the clinical and financial management of the following programs: 55-bed inpatient rehabilitation, day program, outpatient program, Beyond Therapy programs, 11 sports teams, and other health/wellness programs. Directed all of the operations of nursing, therapy, and other ancillary services to provide treatment for patients with spinal cord injury.   
  
Director of Multi-Specialty/Intensive Care Unit, 2005–2007   
Planned, coordinated, and executed all clinical operations specific to the Medical Surgical and Intensive Care Unit. Directed the operations of nursing, therapy, and other ancillary services.   
  
Spinal Cord Injury Day Program Manager, 2000–2005   
Provided management, program development and clinical operations for the Spinal Cord Injury Day Program and single-service outpatient programs.   
  
Clinical Information System Coordinator, 1996–2000   
One of three designated Shepherd Center employees to create, implement, and computerize interdisciplinary documentation for all inpatient, day program, and outpatient treatment interventions.   
  
Spinal Cord Injury Outpatient Rehabilitation Supervisor, 1995–1996   
Supervised the interdisciplinary therapy team (physical, occupational and speech therapy) that provided outpatient therapy. Provided physical therapy for single-service outpatients.   
  
Physical Therapy Floor Supervisor, 1988–1995   
Managed and provided physical therapy services for the spinal cord injury program.   
  
Physical Therapist, 1984–1988   
Provided daily physical therapy treatment to persons with spinal cord injury.   
ADDITIONAL PROFESSIONAL ACTIVITIES   
Commission on Accreditation of Rehabilitation Facilities Program Surveyor, 2008–Present   
Survey various rehabilitation programs to determine how well each meet a pre-determined set of standards. Surveys are conducted over a 2–3 day period, and compliance to standards is determined through documentation review and interviewing key staff members.   
  
Chair of the Christopher and Dana Reeve Foundation NeuroRecovery Network Finance Committee 2012–2016. Implement strategies to influence reimbursement strategies for outpatient therapy.   
Facility Administrator/Director for the Christopher and Dana Reeve Foundation NeuroRecovery Network 2006–2014. Provided overall clinical/financial oversight for the successful implementation of the NeuroRecovery activity-based program as developed by the Christopher and Dana Reeve Foundation. The NeuroRecovery Network is a network of rehabilitation centers charged with developing and providing therapies that promote functional recovery and improve the health of people living with paralysis.   
American Physical Therapy Association Chair of Spinal Cord Injury Special Interest Group 2002–2006. Coordinated education and resources for physical therapy clinicians, rehabilitation specialists, patients and clients.   
American Physical Therapy Association Secretary of Spinal Cord Injury Special Interest Group 1996–1999. Completed quarterly newsletters and documented the minutes of monthly conference calls.   
  
AWARDS   
  
Clinical Excellence in Neurology, awarded by the Neurology Section of the American Physical Therapy Association, 2003   
EDUCATION   
  
Master of Health Administration (MHA), Georgia State University, 2016   
  
Master of Business Administration (MBA), Georgia State University, 2016   
Received the Max G. Holland Award from Georgia State University for the highest grade point average   
Bachelor of Science (BS), University of Miami, Coral Gables, FL, Physical Therapy, 1984   
Summa cum laude   
  
LICENSES   
Physical Therapy Licensure, State of Georgia, License #1960   
PROFESSIONAL ASSOCIATIONS   
  
American College of Healthcare Executives (ACHE)   
Georgia Association of Healthcare Executives (GAHE)   
American Congress of Rehabilitation Medicine   
American Physical Therapy Association (APTA)   
  
PUBLICATIONS IN PAST 5 YEARS   
“Activity-Based Therapy for Recovery of Walking in Individuals with Chronic Spinal Cord Injury: Results from a Randomized Clinical Trial.” Archives of Physical Medicine and Rehabilitation (2014), 95:2239–46.   
  
“NeuroRecovery Network Provides Standardization of Locomotor Training for Persons with Incomplete Spinal Cord Injury.” Archives of Physical Medicine and Rehabilitation (2012), 93(9): 1574–7.   
  
“Life Care Planning Projections for Individuals with Motor Incomplete Spinal Cord Injury Before and After Locomotor Training Intervention: A Case Series.” Journal of Neurologic Physical Therapy (2012), September, 36(3): 144–53.   
  
“White Paper: Competent Care for Persons with Spinal Cord Injury and Dysfunction in Acute Inpatient Rehabilitation.” Topics in Spinal Cord Injury Rehabilitation (2012), 18(2): 149–166.   
  
“Life Care Planning Outcomes for Individuals with Motor Incomplete Spinal Cord Injury Pre and Post Locomotor Training Intervention: A Case Series.” Journal of Neurologic Physical Therapy (2012).   
  
“Traumatic Spinal Cord Injury.” Neurological Rehabilitation, Ed 6, 2012.   
  
INVITED LECTURES IN PAST 5 YEARS   
  
Insurance Rehabilitation Study Group: “An Emerging Issue. Through the Patient Lens”. Platform Presentation. May, 2017   
  
American Congress of Rehabilitation Medicine: “Integrating Outcome Measures Into Clinical Practice”. Co-presenter for instructional course. October, 2016   
  
Academy of Spinal Cord Injury Professionals: “Oh No, CARF is Coming.” Platform presentation. September, 2012.   
  
Academy of Spinal Cord Injury Professionals” Life Care Planning Costs Pre and Post Locomotor Training for Persons with Spinal Cord Injury.” Poster presentation. September, 2012.   
  
Academy of Spinal Cord Injury Professionals. “Neurorecovery Network Provides Standardization of Locomotor Training for Persons with Incomplete Spinal Cord Injury.” Poster presentation. September, 2012.   
  
SPONSORED RESEARCH PROJECTS IN PAST 5 YEARS   
  
The NeuroRecovery, 2006-2014. Responsible for directing a $100,000 per year grant to implement an activity-based locomotor training clinical program.

***Douglas Lorenz, PhD***  
University of Louisville

*(no CV uploaded)*

***Carol P. Eskay, PT, MPT Eskay, PT, MPT***  
Wexner Medical Center, Outpatient Neurological Clinic, the Ohio State University,

*(no CV uploaded)*

***Gail F Forrest, PhD***  
Kessler Foundation Research Center, Human Performance and Movement Analysis Laboratory

*(no CV uploaded)*

***D Michele Basso, Ed.D., PT***  
The Ohio State University

**CV:**  
D. Michele Basso, Ed.D, PT   
Title: Professor, Director of Research, Associate Director of School of Health and Rehabilitation Sciences   
  
A. Personal Statement   
As a physical therapist and neuroscientist, I am well-suited to contribute to basic science and human spinal cord injury discoveries. By serving as a co-site director for the SCILT multicenter clinical trial and as a center director for the NeuroRecovery Network (NRN), I gained invaluable insight into measuring individualized and varied responses to standardized rehabilitation interventions. Given this experience and my degree in motor learning, I am comfortable using biomechanics and kinetics to capture gains or loss of function after SCI in animals and humans. My long track record of exploring clinically-relevant questions using cellular and molecular techniques offers a unique opportunity to discover translational mechanisms for our patients. Recognized primarily for my behavioral work in rodents, my career-long study of the interaction between supraspinal, segmental and afferent control of locomotion after SCI supported several important findings in the field. I am comfortable working in large teams, working with large datasets and publishing with multiple people distributed across the US. My experience in cat, dog, opossum, rat, and mouse models of SCI and recovery are highly unique and add greater depth of knowledge to my translational projects. Additionally, my expertise in neuroimmunology, biomarkers, systems neurobiology and neuroplasticity allow us to make great gains in understanding neuropathology, injury mechanisms and distant effects in both rodent and human SCI.   
  
1. Buehner JJ, Forrest GF, Schmidt-Read M, White S, Tansey K, Basso DM. (2012) Relationship between ASIA examination and functional outcomes in the NeuroRecovery Network Locomotor Training Program. Arch Phys Med Rehabil. 2012 (Sept); 93(9):15.30-40 doi: 10.1016/j.apmr.2012.02.035; PMID: 22920450   
2. Dobkin BH, Apple D, Barbeau H, Basso DM, Behrman A, Deforge D, Ditunno J, Dudley G, Elashoff R, Fugate L, Harkema S, Saulino M, Scott M (2005) Randomized Trial of Weight-Supported Treadmill vs Conventional Training for Walking after Incomplete SCI. Neurology, 66:484-493   
3. Hansen CN, Faw TD, Buford JA, White S, Grau JW, Basso DM. Sparing of descending axons rescues interneuron plasticity in the lumbar cord to allow adaptive learning after thoracic spinal cord injury. Front Neural Circuits 2016: 10.3389/fncir.2016.00011.   
4. Hansen CN, Fisher L, Deibert RJ, Jakeman LB, Zhang H. Noble-Haeusslein L, White S, Basso DM (2013) Elevated MMP-9 in the Lumbar Cord Early after Thoracic Spinal Cord Injury Impedes Motor Relearning in Mice. J. Neuroscience 2013 (August) 33 (32):13101-13111   
  
B. Positions and Honors   
  
Positions and Employment   
1991-92 Postdoctoral Fellow, Mentor: Michael Goldberger Ph.D., Medical College of Pennsylvania, Philadelphia, PA   
1992-94 Postdoctoral Researcher, Mentors: Jacqueline C. Bresnahan Ph.D. and Michael S. Beattie Ph.D., The Ohio State University, Columbus OH   
1995-96 Research Scientist, Dept. of Cell Biology, Neurobiology and Anatomy, The Ohio State University   
1996-02 Assistant Professor, Division of Physical Therapy, School of Allied Medical Professions, The Ohio State University   
1996-02 Assistant Professor (Joint Appointment) Department of Neuroscience, The Ohio State University   
2002-08 Associate Professor, Division of Physical Therapy, School of Allied Medical Professions, The Ohio State University   
2008- Professor, School of Health and Rehabilitation Sciences, The Ohio State University   
2008- Director of Research and Associate Director, School of Health and Rehabilitation Sciences, The Ohio State University   
  
Other Experience and Professional Memberships   
2004-06 NIH Study Section Member, Pharmacology and Diagnostics for Neuropsychiatric Disorders/Brain Disorders and Clinical Neuroscience/SBIR   
2007-11 NIH Study Section Chartered Member, ANIE – Acute Neural Injury and Epilepsy Study Section   
2011-12 NIH Study Section Ad Hoc member, ANIE;   
  
Honors   
2011 Helen J. Hislop Award for Outstanding Contributions to Professional Literature, American Physical Therapy Association   
2005 Outstanding Research Award, Neurology Section, American Physical Therapy Association   
2001 Outstanding Faculty Research Award, School of Allied Medical Professions, Ohio State University   
1997 Distinguished Diversity Enhancement Award, Ohio State University   
  
C. Contribution to Science   
  
1. Perhaps my biggest contribution to the field of spinal cord injury and recovery is the development of behavioral outcome measures that are sensitive to changes in injury severity and interventions. I am probably most well-known for developing the Basso, Beattie, Bresnahan Locomotor Rating Scale (BBB) and the Basso Mouse Scale for Locomotion (BMS). These scales, for the first time, operationalized standard semi-quantitative ratings that allowed comparisons across labs, injury models and time from injury. This work was designated as a “classic SCI publication” by Michael Fehling and has a combined citation record of more than 3000. Recently, we have extended our research in locomotor assessment to develop a fully-automated 3 dimensional motion capture system to quantify both behavior and motor control in mice with SCI. This work was funded through an R21 and we hope that SCI labs will be able to use off-the-shelf technology to quantify performance using our approach.   
a. Basso DM, Beattie MS, Bresnahan JC. (1995) A sensitive and reliable locomotor rating scale for open field testing in rats. Journal of Neurotrauma, 12(1):1-21.   
b. Basso DM, Fisher LC, Anderson AJ, Jakeman LB, McTigue DM, Popovich PG (2006) The Basso Mouse Scale for Locomotion (BMS) Detects Differences in Recovery After Spinal Cord Injury in Five Common Mouse Strains. J Neurotrauma, 23(5): 635-659.   
c. Basso DM, Murray M, Goldberger ME. (1994) Differential recovery of bipedal and overground locomotion following complete spinal cord hemisection in cats. Restorative Neurology and Neuroscience, 7(2):95-110   
d. Sheets A, Lai PL, Fisher LC, Basso DM, (2013) Quantitative evaluation of 3D mouse behaviors and motor function in the open-field after spinal cord injury using markerless motion tracking. PloS one 2013 (Sept) 8 (9). doi: 10.1371/journal.pone.0074536; PMID: 24058586   
  
2. My expertise in behavioral assessment, physical therapy and motor learning serves as the foundation to identify the neural mechanisms that impede or promote recovery of motor and sensory function after SCI. We showed that recovery in the presence of a small complement of spared descending axons alters functional plasticity in the lumbar cord that can be detected behaviorally. In a series of studies, we also established that inflammation occurs well away from the injury epicenter in the lumbar cord. This neuroinflammation causes allodynic-like hypersenstivity in the hindlimbs and impedes locomotor treadmill training. In seminal studies, we showed that reducing neuroinflammation through matrix metalloproteinase-9 mutants produced robust locomotor recovery with early treadmill training. We are currently determining the phenotype and initiating factors that create the toxic inflammatory microenvironment in the lumbar cord through an R21 grant. We are also testing whether different types of exercise training attenuates inflammation and promotes greater sensorimotor recovery.   
a. Hansen CN, Fisher L, Deibert RJ, Jakeman LB, Zhang H. Noble-Haeusslein L, White S, Basso DM (2013) Elevated MMP-9 in the Lumbar Cord Early after Thoracic Spinal Cord Injury Impedes Motor Relearning in Mice. J. Neuroscience 2013 (August) 33 (32):13101-13111. doi: 10.1523/JNEUROSCI.1576-13.2013; PMID: 23926264   
b. Detloff MR, Fisher LC, McGaughy VM, Longbrake EE, Popovich PG, Basso DM (2008) Remote activation of microglia and pro-inflammatory cytokines predicts the onset and severity of below-level neuropathic pain after spinal cord injury in rats. Experimental Neurology, 212(2):337-47. doi: 10.1016/j.expneurol.2008.04.009; PMID: 18511041   
c. Hutchinson KJ, Gomez-Pinilla F, Crowe MJ, Ying Z, Basso DM (2004) Three Exercise Paradigms Differentially Improve Sensory Recovery after Spinal Cord Contusion in Rats. Brain, 127:1403-1414.   
d. Hansen CN, Linklater W, Santiago R, Fisher LC, Moran S, Buford, JA, Basso DM (2012) Characterization of recovered walking patterns and motor control after contusive spinal cord injury in rats. Brain Behav, 2012 Sep; 2(5):541-52. Doi: 10.1002/brb3.71.   
  
3. Based on our finding of an interaction between the type and timing of activity-based training in animal models, we have translated different forms of treadmill training to preclinical tests in human SCI. We have shown that even in people with progressive recovery after SCI, pronounced deficits in muscle strength remain. Therefore, we are testing whether eccentric training during downhill locomotor treadmill training provide further functional gains. To adequately measure locomotor improvement in humans, we scientifically established sensitive assessments of eccentric motor control during locomotion on and off the treadmill. We also completed psychometric testing of existing and new functional outcome measures for human SCI that will be important for the current proposal. These studies were funded through the DOD and the Craig H. Neilsen Foundation.   
a. Forrest G, Hutchinson KJ, Lorenz D, Buehner J, Van Hiel L, Sisto SA, Basso DM (2014) Are the 10 Meter and 6 minute walk tests redundant in patients with spinal cord injury? PLOS ONE (May) doi: 10.1371/journal.pone.0094108; PMID: 24788068   
b. Worthen-Chaudhari L, Bing J, Schmiedeler JP, Basso DM (2014) A new look at an old problem: Defining weight acceptance in Huamn Walking. Gait and Posture 2014 (Jan) 39(1): 588-92 doi: 10.1016/j.gaitpost.2013.09.012; PMID: 24139684   
c. Tester NJ, Lorenz D, Suter S, Buehner JJ, Falanga D, Watson E, Velozo CA, Behrman AL, Basso DM (2015) Responsiveness of the Neuromuscular Recovery Scale during Outpatient Activity-Dependent Rehabilitation for Spinal Cord Injury. Neurorehabilitation and Neural Repair (Sept) pii:1545968315605181.   
d. Worthen-Chaudhari L, Schmiedeler JP, Basso DM (2014) Training conditions that best reproduce the joint powers of unsupported walking. Gait and Posture (February) 41(2):597-602. doi: 10.1016/j.gaitpost.2015.01.003.   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/d.michele.basso.1/bibliograpahy/44043990/public/?sort=date&direction=ascending   
  
D. Research Support   
  
Ongoing Research Support   
R01NS074882-06 Basso (PI) 09/01/2011 – 08/31/2021   
Behavioral and cellular determinants of treadmill training and recovery after SCI   
The major goal of this grant is to examine the interaction of MMP-9 and treadmill training in promoting or restricting locomotor recovery after acute SCI in rodents.   
Role: PI   
  
OSU2013 The Craig H. Neilsen Foundation McTigue (PI) 01/01/2014 – 12/31/2018   
Spinal Cord Injury Research Training Program   
The major goal of this grant is to train scientists in the selection, use and interpretation of proper techniques for spinal cord injury research.   
Role: Co-Investigator   
  
90PR3001, 90PR3002 Christopher & Dana Reeve Foundation with cooperative agreement Administration for Community Living, Department of Health and Human Services   
Basso (Site PI) 11/15/2011 – 11/14/2017   
CDRF NeuroRecovery Network   
The major goal of this grant is to establish a specialty clinic for the treatment of people with SCI using activity–based therapies.   
Role: Site PI   
  
R21NS090265-02 Basso (PI) 09/15/2014 – 08/31/2017   
Peripheral Trafficking in Locomotor Networks After Thoracic SCI   
The major goal of this R21 is to determine the role of peripheral inflammatory cells in disrupting neurovascular stability and neuroplasticity in locomotor networks in rodents.   
Role: PI   
  
316282 Craig H. Neilsen Foundation Basso (PI) 06/30/2015 – 06/30/2017   
Training Frontal Plane Eccentric Motor Control to Improve Locomotion After Incomplete SCI   
The main objective is to evaluate, for the first time in humans, a novel task-specific training intervention for frontal plane hip motion that has dramatically improved walking function in an animal model of iSCI.   
Role: PI   
  
Recently Completed   
  
R21HD082808-02 Basso (PI) 09/26/2014 – 08/31/2017   
Eccentric Training to Improve Human SCI   
The major goal is to characterize eccentric knee motor control in the sagittal plane during locomotion (Aim 1) and its responsiveness to downhill treadmill training at fast speeds (Aims 2 and 3).   
Role: PI   
  
R01AR052787-11 Guttridge (PI) 09/01/2005 – 03/31/2017   
NF-kB/IKK signaling in myogenesis and disease   
Examines in greater detail the molecular mechanism and in vivo significance of NF-κB/IKK alternative signaling in regulating mitochondrial biogenesis as well as the mechanism by which this pathway is activated during skeletal muscle differentiation.   
Role: Co-Investigator   
  
R21NS077446-02 Basso (PI) 08/15/2011 – 07/31/2015   
Quantitative evaluation of 3D mouse behaviors in the open field using markerless motion tracking   
The major goal is to develop sensitive, quantifiable measures of locomotion in mice with and without SCI.   
Role: PI

**31**

**The effects of activity-based training on urinary tract function following spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Charles Hubscher, PhD***  
University of Louisville, Department of Anatomical Sciences and Neurobiology

**CV:**  
Biographical Sketch   
Name: Charles H. Hubscher, PhD.   
Position Title: Professor and Vice Chair, Department of Anatomical Sciences and Neurobiology, Kentucky Spinal Cord Injury Research Center, University of Louisville, Louisville, Kentucky   
  
A. Personal Statement   
My research is geared toward understanding the neural mechanisms underlying bladder, bowel and sexual dysfunction after spinal cord injury (SCI) in a chronic rodent contusion model in parallel with human SCI subjects with the goal of developing more effective therapeutic approaches for translation directly to the clinic. I have been fortunate to have been funded since 1998 when I received a postdoctoral fellowship from the Paralyzed Veterans of America to begin studies on the ascending circuitries mediating male sexual function. My subsequent R01 funding on male urogenital function following SCI covered a period of ten years through 2011. I have also been collaborating with Dr. Susan Harkema since 2009 to study human subjects in parallel to our basic science animal model work. She provides expertise on activity-based training in humans and spinal cord epidural stimulation (scES). We are co-PI’s on three projects involving locomotor training and scES, one in an animal contusion model that is currently funded by the DOD (since 2010), one involving human subjects (multi-PI R01 through 2019), and a new NIH SPARC OT-2 grant for mapping the spinal cord (animals and humans) with ES for bladder storage and voiding. We are the only lab that we know of pursuing this line of translational urogenital research, which multiple surveys show is of the highest priority for the SCI population.   
B. Positions and Honors   
Positions and Employment   
1996-2000 Visiting Assistant, Dept. of Physiological Sciences, University of Florida   
2000-2001 Assistant Scientist, Dept. Physiological Sciences, University of Florida   
2001-2006 Assistant Professor, Dept. Anatomical Sciences & Neurobiology, Univ. of Louisville   
2006-2009 Associate Professor, Dept. Anatomical Sciences & Neurobiology, Univ. of Louisville   
2009-present Professor, Dept. Anatomical Sciences & Neurobiology, Univ. of Louisville   
2009-present Graduate Program Director, Dept. Anatomical Sciences and Neurobiology   
2012-present Vice Chair, Dept. Anatomical Sciences & Neurobiology   
  
Professional Memberships and Other Experience (past 3 years)   
Member, Society for Neuroscience   
Member, American Physiological Society   
Member, International Association for the Study of Pain   
Charter Member, Organization for the Study of Sex Differences   
Member, International Continence Society   
Member, International Brain Research Organization   
Member, Kentucky Spinal Cord Injury Research Center   
Member, Louisville Chapter of the Society for Neuroscience   
  
2015 Scientific Reviewer, DOD: CDMRP 2015 RT/SCIRP   
2015 NIBIB Consortium Member on Addressing Paralysis through Spinal Stimulation Technologies   
2015 NIH Special Emphasis Panel/Study Section CNNT 2015/05 - CNNT Study Section.   
2015 VA Grant Review, Rehabilitation Research & Development Service SCI & Pain Panel - 2015/02.   
2015 SCIRTS Grant Review, Craig H. Neilsen Foundation - 2015/03.   
2016 Scientific Reviewer, DOD: CDMRP 2016 SCIRP INT-SC & NPP Panels   
2016 Scientific Reviewer, DiaComp Funding Program, NIDDK.   
2017 Scientific Reviewer, VA: RR&D SPiRE review.   
2017 Scientific Reviewer, NIH: 2017/18 ZRG1 ETTN-B (56) R, RFA-RM-17-003: SPARC Foundational Peripheral Neuroanatomy and Functional Neurobiology   
  
Recent Honors   
2015 Provost’s Award for Exemplary Director of Graduate Studies (University of Louisville).   
2016 Florida State University Program in Neuroscience 2016 Graduate of Distinction.   
  
C. Contribution to Science   
1) Novel findings in a clinically relevant animal model of SCI (contusion) and in human studies demonstrating the effects of activity dependent plasticity induced by locomotor training after chronic injury on non-locomotor systems (urogenital function – animal and human; bowel – human only). Our animal study data and human data are consistent one another. Further mechanistic studies in our rodent model are in progress.   
  
Hubscher, C.H., Herrity A.N., Williams, C.S., Montgomery, L.R., Willhite, A.M., Angeli, C.A., and Harkema S.J. (2017) Improvements in bladder, bowel and sexual outcomes following task-specific locomotor training in human spinal cord injury. PLOS One, pending minor revisions.   
  
Ward, P.J., Herrity, A.N., Smith, R.R., Willhite, A., Harrison, B.J., Petruska, J.C., Harkema, S.J., and Hubscher, C.H. (2014) Novel multi-system functional gains via task specific training in spinal cord injured male rats. J Neurotrauma, 31: 819-833 (PMID:24294909).   
  
Hubscher, C.H., Montgomery, L.R., Fell, J.D., Armstrong, J.E., Poudyal, P., Herrity, A.N. and Harkema, S.J. (2016) Effects of exercise training on urinary tract function after spinal cord injury. AJP – Renal, 310(11): F1258-68. (PMID:26984956).   
  
Ward, P.J., Herrity, A.N., Harkema, S.J. and Hubscher, C.H. (2016) Training-induced functional gains following spinal cord injury. Neural Plasticity. http://dx.doi.org/10.1155/2016/1307694.   
  
2) Novel findings regarding the innervation of the pelvic viscera (including the female reproductive organs and most recently the urinary bladder) by the vagus in the rat and the concept of this pathway as a potential alternate route that can be targeted for therapeutic interventions after SCI.   
  
Herrity, A.N., Petruska, J.C., Stirling, D.P., Rau, K.K., and Hubscher, C.H. (2015) The impact of spinal cord injury on the neurochemical profile of vagal neurons. AJP: Reg Int Comp Physiol., 308(12):R1021-33 (PMID: 25855310)   
.   
Herrity, A.N., Rau, K.K., Petruska, J.C., Stirling, D.P. and Hubscher, C.H. (2014) Identification of bladder and colon afferents in the nodose ganglia of male rat. J. Comp. Neurol., 522(16): 3667-82 (PMID:24845615).   
  
Kaddumi, E.G. and Hubscher, C.H. (2007) Urinary bladder irritation alters efficacy of vagal stimulation on rostral medullary neurons in chronic T8 spinalized rats. J. Neurotrauma, 24(7): 1219-1227.   
  
Hubscher, C.H. and Berkley, K.J. (1995) Spinal and vagal influences on the responses of rat solitary nucleus neurons to stimulation of uterus, cervix and vagina. Brain Research 702: 251-254.   
  
3) Research findings related to identification of multiple ascending and descending spinal pathways mediating urogenital function, which provides multiple targets for therapeutic interventions after spinal cord injury to retain function.   
  
Johnson, R.D., Chadha, H.K., Dugan, V.P., Gupta, D.S., Ferrero, S.L. and Hubscher, C.H. (2011) Bilateral bulbospinal projections to pudendal motoneuron circuitry after chronic spinal hemisection injury as revealed by transsynaptic tracing with pseudorabies virus. J. Neurotrauma 28(4): 595-605. (PMID 21265606)   
  
Hubscher, C.H., Reed, W.R., Kaddumi, E.G., Armstrong, J.E., and Johnson, R.D. (2010) Select spinal lesions reveal multiple ascending pathways in the rat conveying input from the male genitalia. J. Physiol. 588.7: 1073-1083. (PMID20142271)   
  
Hubscher, C.H. and Johnson, R.D. (2000) Effects of acute and chronic mid-thoracic spinal cord injury on neural circuits for male sexual function. II. Descending pathways. J. Neurophysiology 83(5): 2508-2518.   
  
Hubscher, C.H. and Johnson, R.D. (1999) Effects of acute and chronic mid-thoracic spinal cord injury on neural circuits for male sexual function. I. Ascending pathways. J. Neurophysiology 82(3): 1381-1389.   
  
4) Substantial contribution toward the literature on viscero-somatic and viscero-visceral convergence at multiple levels of the neural axis (e.g., medullary reticular formation, thalamus) which not only impacts multiple fields of study (e.g., visceral pain; the clinical application of manual therapy) but likely explains why multi-symptomatic patients experience referred pain or altered sensations in unaffected viscera. The existence of shared pathways provides a means by which pathology in one organ can affect the functionality of an adjacent healthy organ (cross-organ sensitization).   
  
Hubscher, C.H., Gupta, D.S. and Brink, T.S. (2013) Convergence and cross-talk in urogenital neural circuitries. J. Neurophysiol. 110: 1995-2005 (PMID: 23926033).   
  
Hubscher, C.H. (2006) Estradiol-associated variation in the responses of rostral medullary neurons to somatovisceral stimulation. Exp. Neurol. 200: 227-239.   
  
Kaddumi, E.G. and Hubscher, C.H. (2006) Convergence of multiple pelvic organ inputs in the rostral medulla. J. Physiol. London 572.2: 393-405.   
  
Hubscher, C.H. and Johnson, R.D. (2004) Effects of chronic dorsal column lesions on pelvic viscerosomatic convergent medullary reticular formation neurons. J. Neurophysiol. 92: 3589-3593   
  
5) Finding that neurons in the dorsal column nuclei, an area commonly considered as part of the “touch pathway”, can also respond to gentle and noxious stimulation of viscera and widespread skin regions. These and other findings have led to an ensemble view that multiple pathways cooperate rather than operate separately to produce the many perceptions of touch and pain.   
  
Cothron, K.J., Massey, J.M., Onifer, S.M. and Hubscher, C.H. (2008) Identification of penile inputs to the rat gracile nucleus. AJP: Reg Int Comp Physiol. 294: R1015-R1023.   
  
Petruska, J.C., Hubscher, C.H. and Johnson, R.D. (1998) Anodally-focussed polarization of peripheral nerve allows discrimination of myelinated and unmyelinated fiber input to brainstem nuclei. Exp. Brain Res.: 121(4): 379-390.   
  
Berkley, K.J. and Hubscher, C.H. (1995) Are there separate CNS pathways for touch and pain? Nature Medicine 1(8): 766-773.   
  
Berkley, K.J. and Hubscher, C.H. (1995) Visceral and somatic sensory tracks through the neuroaxis and their relation to pain: lessons from the rat female reproductive system. In: G.F. Gebhart (Ed.), Visceral Pain, Progress in Pain Research and Management, Vol. 5, pp. 195-216, IASP Press, Seattle.   
  
Full list of publications: http://www.ncbi.nlm.nih.gov/pubmed/?term=hubscher+ch   
  
D. Current Research Support   
  
2017-20 Principal Investigator (25% effort), NIH SPARC Grant OT2OD024898 (Harkema Co-PI): “Functional mapping with lumbosacral epidural stimulation for restoration of bladder function after spinal cord injury”. Total Year 1 Direct Costs only: $839,353.   
The goals of this epidural stimulation project are 1) to determine the optimal stimulation parameters for storage and voiding in SCI research participants already implanted with the scES Medtronic device (16-electrode array from L1-S1); 2) to quantify the long-term effects of daily bladder training using optimal stimulation parameters (all the same research participants); 3) to assess secondary benefits (bladder medication usage, susceptibility to urinary tract infections, indirect cardiovascular, bowel and sexual function benefits) of long-term bladder training; and 4) to address with a small animal model the impact of location, lesion severity, chronicity and gender.   
  
2017-22 Co-Investigator (10% effort), Christopher and Dana Reeve Foundation, ES\_BI-2017 (Harkema – PI): “Task and physiological specific stimulation for recovery of autonomic function, voluntary movement and standing using epidural stimulation and training after severe spinal cord injury". Total five-year costs: $8,565,304.   
The major goal of this research is to determine the level of functional gain that can be achieved in voluntary control of movements below the level of injury and autonomic nervous system function as a result of activation of spinal circuits with epidural stimulation with or without task-specific training in humans with complete motor paralysis.   
  
2015-18 Principal Investigator (20% effort), Department of Defense (DOD) SCI40033: “Improving urogenital function with step training after spinal cord injury”. Total costs - $744,160.   
The goals of this project are 1) to determine whether the combination of exercise and pharmacological treatment with desmopressin (an ADH receptor agonist) can reduce polyuria in SCI rats (as measured using metabolic cages); 2) to test the effectiveness of both pudendal as well as epidural stimulation on bladder function in both non-trained as well as locomotor trained (LT) and forelimb-only trained SCI rats; and 3) to assess if LT or neuromodulation improves specific sexual reflexes.   
2015-18 Director of Bladder, Bowel and Sexual Function Human Core (3% effort), for Leona M. and Harry B. Helmsley Charitable Trust’s “Helmsley Center for Restorative Medicine”. Total Center direct costs: $13,636,363.   
The Helmsley Center for Restorative Medicine is an interdisciplinary, collaborative program in medical research for spinal cord injury.   
  
2015-17 Principal Investigator (5% effort), Kentucky Spinal Cord and Head Injury Research Trust (KSCHIRT): “Improving sexual function with step training after spinal cord injury”. Total three years: $299,846.   
The goals of this study are to determine if there are changes in sexual reflexes with locomotor training (LT) in a clinically relevant animal model (Aim 1) and to determine potential benefits of epidural stimulation to maximize training induced changes in urogenital function (Aim 2).   
  
2014-19 Principal Investigator (20% effort), NIH R01: “Effects of activity dependent plasticity on recovery of bladder and sexual function after human spinal cord injury”. Total five-year costs - $1,556,250.   
The goal of this project are 1) to determine whether the effect of weight-bearing task-specific training for locomotion (LT) on voiding frequency and urodynamic parameters is due to an interaction between locomotor and urinary bladder circuitry after traumatic incomplete upper motor neuron SCI in humans (versus standing or general exercise); 2) to assess the effect of LT on urinary biomarker levels after severe incomplete SCI; 3) to determine the effect of weight-bearing task-specific training for locomotion on erectile function and sexual satisfaction after traumatic incomplete upper motor neuron SCI in humans; and 4) to assess the effect of epidural stimulation in combination with LT on voiding frequency, urodynamic parameters, erectile function, and bladder/urine biomarker levels after complete and motor complete/sensory incomplete upper motor neuron SCI in humans.   
  
2012-18 Co-Investigator (10% effort), Leona M. and Harry B. Helmsley Charitable Trust (Susan J. Harkema – PI). “Recovery of Function, Health, and Quality of Life for People with Paralysis”. Total direct costs: $12,000,153.   
The major goal is to restore motor function and quality of life in patients with spinal cord injury using epidural stimulation and locomotor training therapies.

***April Herrity, DC, PhD***  
University of Louisville, Department of Neurological Surgery

*(no CV uploaded)*

***Lynnette Montgomery, PT, PhD***  
University of Louisville, Department of Anatomical Sciences and Neurobiology

*(no CV uploaded)*

***Claudia Angeli, PhD***  
University of Louisville, Frazier Rehab Institute

*(no CV uploaded)*

***Susan Harkema, PhD***  
University of Louisville, Department of Neurological Surgery

*(no CV uploaded)*

**32**

**Development of an Educational Pamphlet about the ISNCSCI Examination for Young Patients**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Kimberly Scharff, PT, DPT, PCS***  
Shriners Hospitals for Children - Philadelphia

**CV:**  
Current Employment   
Shriners Hospitals for Children-Philadelphia   
Physical Therapist (December 2007 to present)   
  
Harcum College PTA Program, Bryn Mawr, PA   
Guest Lecturer, Pediatrics Modules, 2008-present   
  
Licensures & Certifications   
Licensed Physical Therapist, Commonwealth of Pennsylvania, South Carolina   
APTA Pediatric Clinical Specialist (2012)   
Certified Child Passenger Safety Technician, 2009-present   
APTA Advanced Credentialed Clinical Instructor   
  
Professional Organizations   
Member, Amercian Spinal Injury Asociation   
Co-Chair of the ASIA Pedicatrics Committee (current)   
  
Education   
Drexel University, Philadelphia, PA   
Doctorate of Physical Therapy, May 2006   
  
Cabrini College, Radnor, PA   
Master of Education, August 2000   
  
Villanova University, Villanova, PA   
Bachelor of Science in Biology, May 1996   
  
Publications   
Johnson DR, Scharff KA. Spinal Cord Injury. In: Pelletier E (ed), Jobst EE (Series ed). Physical Therapy Case Files: Pediatrics. New York, NY: McGraw-Hill, 2015.

***Dana Johnson, PT, DPT***  
Shriners Hospitals for Children - Philadelphia

**CV:**  
Current Employment   
Shriners Hospitals for Children-Philadelphia   
Senior Therapist/Spinal Cord Injury Team Leader (September 2009 to present)   
  
Previous Employment   
Shriners Hospitals for Children-Philadelphia   
Staff Physical Therapist (July 2005 to September 2009)   
  
Genesis Healthcare   
Staff Physical Therapist (October 2003 to July 2005)   
  
Licensures & Certifications   
Licensed Physical Therapist, Pennsylvania, PT016615   
Licensed Physical Therapist, South Carolina, 5755   
  
Professional Organizations   
Member, American Spinal Injury Association (Pediatrics Committee)   
  
Education   
Temple University, Philadelphia, PA   
Doctorate of Physical Therapy, July 2003   
  
Spelman College, Atlanta, GA   
Bachelor of Science in Mathematics, May 1998   
  
Publications   
Johnson DR, Scharff KA. Spinal Cord Injury. In: Pelletier E (ed), Jobst EE (Series ed). Physical Therapy Case Files: Pediatrics. New York, NY: McGraw-Hill, 2015.

**33**

**Facilitating Developmental Movement Patterns with the Use of a Body-Weight Supported Harness in Incomplete Spinal Cord Injury.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Naama Kenig, PT, DPT***  
Kessler Institute for Rehabilitation

**CV:**  
Naama Kenig   
170 Washington Ave Staten Island NY 10314   
naamakenig@gmail.com • (848)702-9099   
LN NY: 036740   
LN NJ: 40QA01525100   
  
  
PROFESSIONAL EXPERIENCE:   
Kessler Institute for Rehabilitation, West Orange NJ Feb 2014-present   
Proficient Physical Therapist 2016-present   
Staff Physical Therapist 2014-2016   
  
• Primarily treated in spinal cord injury, neurologic , amputee, general rehab, and stroke units.   
  
• Responsibilities included: evaluation, treatment, discharge planning, reporting in multidisciplinary team meetings, designing home exercise programs, family trainings to prepare for discharge, ordering appropriate assistive devices and orthoses, referring to specialists, and ongoing communication with other team members including medical staff.   
  
• Additional responsibilities included: quarterly presentations to patients and families for stroke education, quarterly presentations for student education lecture series, team leader for weekly multidisciplinary meetings, clinical lead for weekends, leading group therapy sessions, clinical instruction for students, mentorship for new therapists, data collection for orthopedic and neurologic research, and volunteering for hospital supported community events.   
  
EDUCATION:   
SUNY Downstate Medical Center, Brooklyn, New York   
Doctorate of Physical Therapy, May 2013   
Bachelor of Science in Health Sciences, May 2011   
  
LICENSURE:   
Licensed Physical Therapist by the States of New York and New Jersey   
  
MEMBERSHIPS:   
American Physical Therapy Association member, Neurology section

**34**

**Cardiovascular fitness responses to Body-Weight Support Treadmill Training and Arm-Crank Ergometry Training in Individual with Complete Motor Spinal Cord Injury: Randomized Control Trial**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Abdullah Alrashidi, PT, MSc, Phd student***  
University of British Columbia

**CV:**  
Abdullah A. Alrashidi   
Address   
2627 Melfa Ln.   
Vancouver, BC, V6T2C5   
E-mail: aaalrashidi1980@gmail.com   
Mobile: 6043493394   
  
Qualification:   
• Bachelor of Science in Physical Therapy (2004).   
King Saud University, College of Applied Medical Sciences with a G.P.A (3.55/5).   
Riyadh, Kingdom of Saudi Arabia.   
• Master of Science in Physical Therapy with concentration in musculoskeletal Physical therapy, School of Health and Rehabilitation Sciences, University of Pittsburgh, USA, 2009 with a G.P.A ( 3.4/4).   
• PhD student starting 2016, University of British Columbia/ International Collaboration On Repair Discoveries ( ICORD), School of Medicine, Experimental Medicine Department.   
  
Professional Experience:   
♣ Qualified Physical Therapist:   
  
June 2004- Jan 2005 King Khalid Hospital (Al-kharj, Saudi Arabia)   
Position: Physical Therapist   
Working mostly with outpatient and dealing with orthopaedic diagnosis including knee osteoarthritis, back pain and neck pain.   
  
Jan2005-Jun2008 Rehabilitation Hospital, King Fahad Medical City (Riyadh, KSA)   
Position: Physical Therapist: mainly handling acute cases.   
Worked in acute neurological (inpatient), orthopaedic (outpatient) and Rehabilitation.   
Also provided coverage in the following treatment areas: Medical, Surgical Heamatology&Oncology center, Neuroscience, Cardiac center, ICU’s and Acute Stroke Unit. Administrative duties included participating in weekly in-services. Supervising on job trainees and internship students, and the development of Acute Inpatient team.   
  
Feb2010-June2014 Rehabilitation Hospital, King Fahad Medical City (Riyadh, KSA)   
Position: Physical Therapist I and worked as the In-charge of Acute Care setting: working as the In-charge of acute In-patient setting. Supervising the staff in the mentioned area (7 staff). Participating in different multidisciplinary meetings. Also I have direct-patients care which is mainly covering Cardiac center and Comprehensive Cancer Center.   
June 2014-present Rehabilitation Hospital, King Fahad Medical City (Riyadh, KSA)   
Position: Head of acute setting: Officially assigned to be the head of the Acute Care Setting under the umbrella of the Physical Therapy Department.   
The acute setting which composed of 16 therapists plus rotating staff and internship students. The Hospitals and Centers that covered by the team are :-   
• National Neuroscience Institute, includes Acute Stroke Unit. Spine Wards, and NeuroSurgeries Wards.   
• king Salman Heart Center, includes Cardiac Wards and CardioSurgeries Wards.   
• Main Hospital, includes Surgical and Medical Wards Plus Intensive Care Units.   
• Comprehensive Cancer Center, includes Haematology, Oncology wards plus palliative care service.   
  
  
Being involved in the following:   
• CBAHI task force team.   
• A team leader of Ergo and Work-related Musculoskeletal dysfunction team.   
• CARF SCI team.   
• Team leader, Rehab Staff Satisfaction.   
  
Additional Qualification and Courses/Workshops:   
  
ϖ Attended the “Radiology for physical therapy” workshop at Bahrain from 26 to 27 June2003.   
ϖ Attended the Mckenzie course ( Lumbar Spine) at SFH from 12 to 15 Oct 2003.   
ϖ Attended the Mckenzie course ( Cervical Spine) at SFH from 18 to 20 Oct 2003.   
ϖ Attended the “integrated Cervical and Lumbar Spine “course at National Guard Hospital, Jeddah ,KSA from 17 to 21 Jan 2004.   
ϖ Attended the “Mulligan Concept, Upper Quadrant” course at Riyadh, KSA from 28 to 29 July 2004.   
ϖ Attended the ”PT management of different Neurological problems” course at Bahrain from 26 to 27 Aug 2004.   
ϖ Attended the “Gait Analysis in assessing Pathology” course at KFMC, Riyadh, KSA from 31 May to 1 June 2005.   
ϖ Attended the “Mulligan Concept, Lower Quadrant” at Riyadh from 29 to 30 June 2005.   
ϖ Completed the “Physical Therapy Neuro-Rehabilitation training” at KFMC from 30 July to 7 Sept 2005.   
ϖ Attended the “Cardiac Rehabilitation” activity at Riyadh 15 Dec 2006.   
ϖ Attended a Two Part Course Focusing on Cardiopulmonary Physical Therapy from April 7-8,2009. At HealthSouth Harmarville, Rehabilitation Hospital, USA.   
ϖ Attended a work shop regarding amputation physical therapy from November 06 to 08 2010 at King Fahad Medical City.   
ϖ Attended "Cancer Pain Management Symposium", Riyadh, April 5-6, 2011.   
ϖ Attended "Clinical Education Worksop", Riyadh, March 19-20, 2011.   
ϖ Attended Annual Conference of American Physical Therapy Association, June 7-11, 2011, USA.   
ϖ As a speaker in the international Rehabilitation Conference, entitled with” mobilizing critically Ill Patients” Dec 2011. King Fahd Medical City.   
ϖ As a speaker in Palliative International conference, entitled with” the role of physical therapy in palliative care” Dec 2011. King Fahd Medical City.   
ϖ As a speaker in a palliative conference at King Saud Medical City, entitled with” Cancer pain, Physical therapy perspective”. April 2012.   
ϖ As a speaker in the 2nd cancer pain management, King Fahd Medical City, 4th-5th Sep 2012.   
ϖ As a speaker in the palliative conference in Hail for the Palliative conference.   
ϖ As a speaker in the palliative conference, held in King Saud Medical City, Riyadh , KSA, May 2013.   
ϖ As a speaker in the palliative conference, held in Almadinah, KSA, 16th -17th April 2014.   
ϖ As a speaker in the 3rd cancer pain management, King Fahd Medical City, 9th – 10th Sep 2014.   
ϖ Certificate 6-day course, 26 May – 1 April 2014 entitled with “ Professional in Health and Hospital Administration Training Program”.   
ϖ As a speaker in the 3rd physical therapy colloquium, Alkhobar 28,29 March 2015. Oral presentation entitled with “ moving critically ill patients”.   
  
Languages:   
  
♣ Arabic (mother tongue): Written, Spoken, and Reading:- Native   
  
♣ English: Written, Spoken, and Reading:- Advance   
  
  
Hobbies:   
♣ Soccer.   
♣ Reading.   
♣ Self-development courses. ♣ Movies.   
♣ Community work.

***Michèle Hubli, PhD***  
University of Zurich

*(no CV uploaded)*

***Maureen MacDonald, PhD***  
Mcmaster University

*(no CV uploaded)*

***Audrey Hick, PhD***  
Mcmaster University

*(no CV uploaded)*

***Dave Ditor, PhD***  
Brock University

*(no CV uploaded)*

***Cathy Craven, MD***  
University of Toronto

*(no CV uploaded)*

***Molly Verrier, Dip (P&OT), MHSc***  
University of Toronto

*(no CV uploaded)*

***Katharine Currie, Phd***  
Mcmaster University

*(no CV uploaded)*

***Andrie Krassioukov, MD, PhD***  
University of British Columbia

*(no CV uploaded)*

**35**

**Quality of life in patients after a traumatic cervical spinal cord injury based on the severity and recovery of the neurological impairment**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Gabrielle Houle-Clermont,***   
Université De Sherbrooke

*(no CV uploaded)*

***Andréane Richard-Denis, MD. MSc***  
Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Cynthia Thompson,***   
Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Jean-Marc Mac-Thiong, MD, PhD***  
Hôpital Du Sacré-Coeur De Montréal

**CV:**  
Name : Jean-Marc Mac-Thiong, MD, PhD   
  
Position title : Associate professor, clinician-scientist, orthopedic spine, Université de Montréal, Hopital du Sacre-Coeur de Montreal   
  
RESEARCH AND PROFESSIONAL EXPERIENCE:   
  
Positions and Employment   
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada   
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada   
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada   
2010-… Chief Medical Officer, Spinologics Inc., Canada   
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada   
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada   
  
Other Experience and Professional Memberships   
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association   
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society   
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society   
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation   
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal   
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group   
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)   
2014-… Associate Member, Harms Study Group   
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé   
2012-13 Associate Member, North American Spine Society   
2012-… Member, American Spinal Injury Association   
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis   
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research   
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities   
2008-… Member, Scoliosis Research Society   
  
Honors   
2015 Ansys Hall of Fame 2015 Best in Show: Corporate   
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)   
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)   
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research   
2011 Scoliosis Research Society Traveling Fellowship   
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting   
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting   
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society   
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé   
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal   
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal   
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal   
  
Publications   
H-index: 27 i10-Index: 56   
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong   
  
Peer-reviewed publications on spinal cord injury   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J   
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology   
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]   
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)   
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]   
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]   
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]   
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]   
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68   
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33   
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6   
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8   
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23   
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68   
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4   
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47   
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6   
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54   
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22   
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24   
  
Peer-reviewed publications on other spine-related projects (2015-2017)   
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]   
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]   
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]   
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94   
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32   
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62   
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796   
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4   
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2   
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8   
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7   
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65   
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11   
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31   
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30   
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35   
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20   
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6   
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7   
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003   
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51   
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43   
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8   
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21   
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1   
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20   
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34   
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64   
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)   
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017   
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017   
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.   
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014   
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014   
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014   
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014   
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014   
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

**36**

**CASE STUDY: The Impact of Urinary Symptoms and the Urine Microbiome in an individual that has changed from Intermittent to Suprapubic catheter**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Amanda Rounds, PhDc***  
Medstar Health Research Institute

**CV:**  
Amanda Rounds   
George Mason University   
Department of Rehabilitation Science   
4400 University Dr.   
Fairfax, Virginia 22030   
571-332-9887   
Arounds@Masonlive.gmu.edu   
  
Education:   
Ph.D. Rehabilitation Science, August 2012- Present   
George Mason University   
Fairfax, Virginia   
  
B.S. Integrative Studies Concentration: Life Sciences, August 2010-May 2012   
George Mason University   
Fairfax, Virginia   
  
  
Experience:   
June 2017- Present Clinical Research Coordinator I (Dr. Groah)   
National Rehabilitation Hospital, Washington, D.C.   
  
June 2016- June 2017 Clinical Research Assistant (Dr. Groah)   
National Rehabilitation Hospital, Washington, D.C.   
  
January 2015- Present Graduate Research Assistant- Volunteer (Dr. Harris-Love)   
National Rehabilitation Hospital, Washington, D.C.   
George Mason University, Fairfax, VA.   
  
September 2015- March 2016 Graduate Research Assistant- Volunteer   
Adaptive Sports Teams (Susan Lydick dissertation)   
  
August 2012- May 2015 Graduate Research Assistant (Dr. Terry)   
George Mason University, Fairfax, VA.   
  
Published Abstracts:   
Lydick S, Rounds AK, Bryson CA, Herrick JE, Collins JP, Groah SM, Short JL, Guccione AA. Group cohesion and participation in adaptive sport: spinal cord injury and other mobility limiting conditions. Arch Phys Med Rehabil 2016; 97:e101   
  
Jo PY, Rounds AK, Lichy AM, Gollie JM, Panza GS, Guccione AA. Gait adaptation following task-specific locomotor training in an individual with incomplete spinal cord injury. Med Sci Sports Exerc 2016; 48(5 Suppl 1):401-2.   
  
Rounds AK, Lydick SE, Lichy AM, Gollie JM, Panza GS, Jo PY, Guccione AA. Doing better but not feeling it: self-efficacy and ambulation ability in incomplete spinal cord injury. Med Sci Sports Exerc 2016; 48(5 Suppl 1):424.   
  
Podium Presentation:   
Rounds, A; Schladen, M; Ljungberg, I; Nash, M; Groah, S. Cardiometabolic Syndrome Criteria and Their Application to with Spinal Cord Injury (Presented at ASIA, 2017).   
  
Abstracts:   
Rounds, A; Woolstenhulme, J; Lydick, S; Weinstein, A; Chin, L; Chan, L; Keyser, R (FACSM); Relationship Between Physical Activity and 6-minute Walk Distance in Patients with Pulmonary Arterial Hypertension (Accepted ACSM Poster, 2015)   
  
Gollie, J; Panza, G; Lydick, S; Puri,S; Jo, P; Lichy, A; Rounds, A; Murray, D; Guccione, A; Muscle Oxygen Utilization Following Activity-Based Rehabilitation in a Person With Incomplete Spinal Cord Injury. ACRM Annual Conference Submission (Accepted ACRM Poster, 2015)   
  
Harrington, R; Abraham, D; Chan, E; Harris-Love, M; Mohapatra, S; Rounds, A; Wutzke, C; Comparing stimulation of bihemispheric motor sites on a reaching task in mild and severe arm impairment after stroke. ASNR Annual Conference Submission (Accepted ASNR Poster, 2015)   
  
Rounds, A; Wutzke, C; Harrington, R; Chan, E; Harris-Love, M; Relationship between Sub-Sections Of Upper Extremity Fugl-Meyer Scores and Reaching Performance in Chronic Stroke Survivors (Accepted WCNR Poster, 2016)   
  
Lichy, A; Neville, B; Gollie, J; Rounds, A; Panza, G; Jo, P; Guccione, A; Task-specific Performance Based Training: Effects on Gait and Balance in an Ambulatory Spinal Cord Injured Population (Accepted ASIA Poster, 2016)   
  
Rounds, A; Lydick, S; Lichy, A; Gollie, J; Panza, G; Jo, P; Guccione, A; Doing Better But Not Feeling it: Self-Efficacy and Ambulation in Incomplete Spinal Cord Injury (Accepted ACSM Poster, 2016)   
  
Jo, P; Rounds, A; Lichy, A; Guccione, A; Gait adaptation following 15 weeks of task-specific locomotor training (LT) in incomplete spinal cord injury (Accepted ACSM Poster, 2016)   
  
Rounds, A; Lichy, A; Gollie, J; Wutzke, C; Guccione, A; Task Specific Overground Locomotor Training Is Associated With Improved Gait And Balance in Incomplete Spinal Cord Injury: Case Report (Accepted, ASB, 2016)   
  
Murray, D; Cowan, R; Groah, S; Ljungberg, I; Rounds, A; Guccione, A; Keyser, R. VO2 Off-Kinetics following Exhausetive Upper Body Exercise Testing After Spinal Cord Injury (Accepted, ACSM, 2017).   
  
  
Conferences Attended:   
American Society of Biomechanics- Human Movement Symposium, Chapel Hill, NC, 2013   
American Society of Biomechanics- Human Movement Symposium, Chapel Hill, NC, 2014   
American College of Sports Medicine, San Diego, CA, 2015   
World Congress of Neurorehabilitation- Philadelphia, PA, 2016   
American College of Sports Medicine, San Diego, CA, 2016   
American College of Sports Medicine, Boston, MA, 2016   
American Spinal Injury Annual Conference, Albuquerque, NM 2017   
  
Presentations:   
Open House for Functional Performance Lab   
Presented Motion analysis equipment to the public, 2013   
Visual Responsiveness Gait Analysis   
Presented to George Mason University Students in RHBS 415: Clinical Movement Science Course, Fairfax, VA, 2013   
Getting Started with Zotero   
Presented to George Mason University Rehabilitation Science PhD students, 2014   
Motion Analysis Presentation for individual with Spinal Cord Injury   
Presented to Rehabilitiation Science Department, Subject and Family, Starting in Feb 2015 (every 15 weeks)- Present   
Open House for Functional Performance Lab   
Presented Motion analysis equipment to the public, 2015   
Experience Mason Cocktail Hour (~350 Mason Benefactors)   
Presented about RHBS Dept research on Transcranial Magnetic Stimulation, 2015   
Virginia House of Delegates Visit at GMU   
Presented about RHBS Dept research on Transcranial Magnetic Stimulation, 2015   
http://chhs.gmu.edu/news/story.cfm?customel\_dataPageID\_12412=35489   
Presentation on Self-Efficacy in Rehabilitation   
Presented to George Mason University Rehabilitation Science PhD Students, 2015   
Presentation to Catholic Bioengineering students of Transcranial Magnetic Stimulation, 2016   
Presented at National Rehabilitation Hospital in the Mechanisms of Therapeutic Rehabilitation lab (MOTR), Feb 2016   
Motion Analysis Presentation of Vicon, Pedar, and APDM systems in Human Performance lab   
Presented to George Mason University Students in RHBS 415: Clinical Movement Science Course, Fairfax, VA, April 2016   
Stroke Open House for the Mechanisms of Therapeutic Research Lab (MOTR Lab)   
Presented at National Rehabilitation Hospital, Washington, DC, June 2016   
  
Skills:   
Technology:   
Vicon Motion Capture (Bonita series), 2013   
APDM Opal Mobility Lab, 2013   
Pedar in-shoe dynamic pressure measuring system, 2013   
Motion Monitor, 2013   
MedGraphics, 2013   
Woodway, 2013   
Aided in R03 Application, 2013   
Aided PhD students in proposal writing, 2013-Present   
Trained PhD students on lab equipment, 2013- Present   
Proficiency in Microsoft software (Excel, Publisher, Word, Powerpoint)   
SPSS   
SOP writing of Vicon, APDM, Pedar, Motion Monitor, and Woodway (GMU)   
SOP writing for Protocols (GMU & NRH MOTR lab)   
IRB application writing (GMU)   
  
George Mason University Commitees and Activites:   
Founding Member of the GMU Rehabilitation Club (Vice President), 2013-2016   
George Mason University College of Health and Human Services Weight Loss Clinic committee, 2014-2015   
Resolution Solution Team Captain, 2015   
  
Professional Affiliations:   
American College of Sports Medicine 2015, 2016   
Society for Neuroscience 2015, 2016   
American Society of Biomechanics, 2016   
American Spinal Injury Association, 2017

***Inger Ljungberg, MPH***  
Medstar Health Research Institute

*(no CV uploaded)*

***Suzanne Groah, MSPH, MD***  
Medstar National Rehabilitation Hospital

*(no CV uploaded)*

**37**

**Larval Debridement Therapy of Sacral/Coccyx Pressure Ulcer in the Acute Rehabilitation Setting : Giving Their Lives for a Good Cause - Case Reports**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Naoko Otsuji-Miwa, RN, BSN, CRRN, CWOCN, CFCN***  
Magee Rehabilitation Hospital

**CV:**  
Name: Naoko Otsji-Miwa   
Position: a wound care nurse at the Magee rehabilitation Hospital   
  
A. Experience;   
wound care nurse at the Magee Rehabilitiiation Hospital 05/12 - Current   
  
Floor nurse in SCI Unit at the Magee rehabilitation Hospital 06/05 - 05/12   
  
Floor nurse in General rehab unit at the Magee Rehabilitation Hospital 09/99 to 06/05   
  
B. Certification;   
Wound, Ostomy and Continence nurse   
Rehabilitation Registered nurse   
Foot care nurse   
  
C. Presentations;   
The poster presentations:   
44th WOCN conference in 2012   
NER WOCN conference in 2013   
46th WOCN conference in 2014   
47th WOCN conference in 2015   
ASCIP conference in 2015   
NER WOCN conference in 2015   
48th WOCN conference in 2016   
ARN REACH 2016   
NPUAP Research Symposium 2016   
SAWC Spring 2017   
ASCIP conference in 2017   
NER WOCN conference in 2017   
  
The oral presentation:   
ASIA annual Scientific Meeting 2016

***Everyn Phillips, MS, RD, LDN, CDE***  
Magee Rehabilitation Hospital

*(no CV uploaded)*

***Julianna Rece, RN, MSN, CWOCN***  
Magee Rehabilitation Hospital

*(no CV uploaded)*

**38**

**Predictive equations over-estimate the resting energy expenditure in spinal cord injured patients who are dependent on invasive ventilation support: a case series.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
Samford Wong is NSIC Dietetic Lead in Research / Lead Dietitian, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Department of Nutrition and Dietetics, Stoke Mandeville Hospital, Buckinghamshire Healthcare NHS Trust, Aylesbury HP21 8AL; Tel: 01296 315775; Email: samford.wong@buckshealthcare.nhs.uk   
Other current appointments:   
Honorary Lecturer, Health Service Research, City, University of London (Sept 2016- Present)   
Honorary Fellow, Health Service Research, City University London (Sept 2012- current);   
Honorary Research Associate (Oct 12 to Sept13), Centre for Gastroenterology and Clinical Nutrition, University College London   
  
Evidence of Esteem   
2010: Nutrition Society: Postgraduate Competition Award   
2010: Hospital Infection Society: The Mike Emmerson Young Investigator’s Award   
2011: Buckinghamshire Healthcare NHS Trust: Staff Award: winner of the Courteous and Professional category   
2012: International Spinal Cord Society: Spinal Cord Prize – Silver Medal   
2013: American Spinal Injury Association meeting: Award papers / posters   
2013: ESPEN: Outstanding abstract (8 out of 576 accepted abstracts)   
2013: International Spinal Cord Society: Award paper (2nd place)   
2014: The Rose Simmond’s Award, the British Dietetic Association.   
2015: Spinal Injury Association, shortlisted candidate for the Award for Innovation and Research   
2017: New member spotlight – American Spinal Injury Association.   
Project Grants   
Aventis Pharma Limited 2008-09; (£3000).Wong SS (CI) et al Spinal Clinic for Obesity Outpatient Project.   
Abbott Nutrition 2009-11 (£15,000). Wong SS (CI) et al. Nutritional status in patient with spinal cord injury: a cross sectional, multi centre study.   
Hospital Infection Society 2010-12 (£10,000) & Yakult 2009-11 (£5,000) Wong SS (CI), et al. Do probiotics prevent antibiotics associated diarrhoea in SCI patients: a randomised controlled trial   
Waterloo Foundation (£9,091) & Abbott Nutrition 2010-12 (£9,091) Wong SS (CI), et al. A single centred study of the nutritional status of paediatric patients with spinal cord injuries: An Observational study.   
Buckinghamshire Healthcare NHS Trust (£10,000) Wong SS (CI), et al. Enhanced Pressure ulcers Recovery Programme (E PREP): A pilot study on the effect of specialised amino acid supplements in the management of pressure ulcers in patients with spinal cord injuries: a double-blinded, randomised, placebo-controlled trial   
Yakult Europe 2014-2016 (£345,793) Wong S (CI), Jamous A, O’Driscoll J, Hirani SP, Whelan K & Forbes A. Efficacy of Consuming Lactobacillus casei Shirota (LcS) In Spinal cord injury Patients (ECLISP) Effect of probiotics on gastrointestinal function in patients with spinal cord injuries: a multicentre, randomised, double-blinded, placebo-controlled trial.   
Buckinghamshire Healthcare NHS Trust (£15,000) Gainullina I, Graham A, Saif M & Wong S. Efficacy of ergocalciferol supplementation on urine calcium among patients with spinal cord injury: a randomised double-blinded, placebo-controlled trail.   
Equipment grants   
Buckinghamshire Healthcare NHS Trust’s Charitable Trust Fund (2014) Purchase of Quark RMR, Indirect calorimetry. COSMED SRL, Rome, Italy. (£24,989)   
Total research income (2007 – 2014) inclusive £ 476,714   
Conferences, symposia and workshops   
Co-ordination and management of research symposia and teaching workshops   
Since 2012 – Samford organise annual nutrition study day for covering nutritional Needs of Patients Following Spinal Cord Injury, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Invited lecturer   
2011 – (present) – teaching in UCL MSc: Clinical Nutrition module in Spinal Cord Injuries   
2012 March – Development and validation of Spinal Nutrition Screening Tool in patients with spinal cord injuries. University College London Medical Grand Round   
2012 November – Do probiotics prevent antibiotic-associated diarrhoea in patients with spinal cord injuries: a randomized controlled trial: an interim analysis. FIS / HIS 2012 conference, Liverpool ACC.   
2013 April – Patient and Public Involvement in Clinical Research. University of Aberdeen / Medical Research Council, Aberdeen, Scotland   
2014 November – Do probiotic prevent antibiotic-associated diarrhoea in patients with spinal cord injuries – a RCT. FIS / HIS 2014 conference, Lyon, France.   
2015 April – International Probiotic Study Day, Yakult Europe, Berlin, Germany.   
2016 November – Shirota Conference, Tokyo, Japan   
Book / Guideline contribution   
1.MASCIP (Multidisciplinary Association for Spinal Cord Injury Profession) (2010) Guidelines on rehabilitation of older adult with spinal cord injury – Wong S (2010) Chapter on Nutrition www.mascip.co.uk accepted, launched in Nov MASCIP conference   
2.International Spinal Cord Society (2012) E-learning modules – Nutritional management after spinal cord injuries (Basic and Advanced module) – Kovindha A, Wong S, Baumann W, et al. http://www.elearnsci.org/ http://www.elearnsci.org/intro.aspx?id=5&category=Doctors   
3. British Society of Rehabilitation Medicine (BSRM) (2012) Nutritional management in neuro- rehabilitation for UK national registrar training. Wong S, Spillman L & Graham A (2012)   
4. British Dietetics Association (2014) Manual of Dietetics Practice, 5th Edition – Twist A & Wong S (2014) Spinal Cord Injuries. Wiley Blackwell   
5. Consortium for Spinal Cord Medicine (2014) Pressure ulcer prevention and treatment following injury: A clinical practice guideline for health-care providers, 2nd Edition. Wong S - Nutrition section.   
6. MASCIP (2014-16) Weight management guideline for individuals with spinal cord injuries – Wong S (Guideline Chair), Bearne P, Fitzsimons L, Graham A, Taylor C, Twist A, Smith E.   
7. International Spinal Cord Society (ISCOS) (2014/5) ISCOS text book - Nutritional management after spinal cord injuries. Kovindha A &Wong S   
8. British Dietetics Association (2016) Advanced Nutrition and Dietetics in Nutrition Support – Wong S (2015) Spinal Cord Injuries.   
  
  
Recent peer-reviewed publications:   
1. Wong S, et al (2011) Spinal Clinic for Obese Out-patient Project (SCOOP) – a 1 year report. Food Nutr Sci 2, 901-7   
2. Wong S, et al (2012) How do spinal cord injury centres manage malnutrition? A cross-sectional survey of 12 SCIC in the UK and Ireland. Spinal Cord 50, 132-5.   
3. Wong S, et al (2012) The prevalence of malnutrition in spinal cord injured patients - a UK multicentre study. Br J Nutr 108, 918-923.   
4. Wong S, et al (2012) Validation of the Spinal Nutrition Screening Tool (SNST) in patients with spinal cord injuries (SCI)-result form a multicentre study. Eur J Clin Nutr 66, 382-7.   
5. Wong S, et al (2012) Profile and prevalence of malnutrition in children with spinal cord injuries - assessment of the Screening Tool for Assessment in Paediatrics (STAMP). Spinal Cord 50, 67-71.   
6. Wong S, et al (2012) An audit to assess awareness and knowledge of nutrition in a UK spinal cord injuries centre. Spinal Cord 50, 446-451.   
7. Wong S, et al (2012) Meal provision in a UK National Spinal Injury Centre – a qualitative audit of service users and stakeholders. Spinal Cord 50, 772-777.   
8. Wong S, et al (2013) Validation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP) in patients with spinal cord injuries (SCI), Spinal Cord 51, 424-429.   
9. Wong S, et al (2013) Nutritional supplement use in patients admitted to spinal cord injury centre, J Spinal Cord Med 36, 645-651.   
10.Wong S, et al (2013) Morbid obesity after spinal cord injury: an ailment not to be treated?   
Eur J Clin Nutr 67, 998-999   
11. Wong S, et al (2014) A Lactobacillus casei Shirota probiotic drink reduces antibiotic-associated   
diarrhoea in patients with spinal cord injuries: a randomised controlled trial. Br J Nutr 111, 672-678.   
12. Wong S, et al (2014) IS nutritional risk associate with adverse clinical outcomes in spinal cord injured   
patients admitted to a spinal centre? Eur J Clin Nutr 68, 125-130.   
13. Wong S (2014) Malnutrition after spinal cord injury. Network Health Dietitian 90, 27-29.   
14. Wong S, et al (2015) Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal   
cord injuries: an international survey. Spinal Cord 53, 24-31.   
15. Wong S, et al (2015) Review of dietetic service provision and activity in spinal cord injury centres: a multicentre survey in the UK   
and Republic of Ireland. Spinal Cord 53, doi: 10.1038/sc.2015.83   
16. Wong S et al (2015) Survey on the use of probiotics in preventing antibiotic associated diarrhoea and Clostridium difficile   
associated diarrhoea in spinal cord injuries centres. Int J Probiotcs and Prebiotics 10, 85-90.   
17. Hughes L, Wong S (2015) Nutritional Support and Spinal Cord Injuries. Complete Nutrition 15: 11-14.   
18. Wong S, et al (2015) Effectiveness of probiotic in preventing antibiotic associated diarrhoea and / or Clostridium difficile   
associated diarrhoea in patients with spinal cord injury: a study protocol for a systematic review of randomised controlled   
trials. Syst Review 4, 170.   
19. Wong S, et al (2017) Use of antibiotic and prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: a   
UK national spinal injury centre experience. Spinal Cord 2017 Jan 31: doi: 10.1038/sc.2016.193 [Epub ahead of print]   
20. Wong S, et al (2017) Effectiveness of probiotic in preventing antibiotic associated diarrhoea (AAD) and Clostridium difficile   
associated diarrhoea (CDAD) in patients with spinal cord injury: A systematic review. Int J Probiotics and Prebiotics 12, 115-122.   
21. Wong S, Santullo P, Hirani SP et al (2017) Use of antibiotics and the prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: an international, multi-centre study. J Hosp Infect 97, 146-152.

***Paul Subong, RN***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Wail Ahmed, MRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Fadel Derry, FRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Allison Graham, MD., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Mofid Saif, MD., FRCP., FRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Maurizio Belci, MRCS., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

**39**

**Effects of Neuromuscular Electrical Stimulation on Upper Extremity Recovery in Individuals with Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Erin Nalle, MS, OTR/L, CBIS***  
Frazier Rehab Institute

**CV:**  
Personal Statement:   
  
I have been a practicing occupational therapist for seven years. I am currently a Research Occupational Therapist with the spinal cord program at Frazier Rehab Institute in Louisville, Kentucky. Prior to August of 2015, I worked at Cardinal Hill Rehabilitation Hospital in Lexington, Kentucky, where I specialized in working with patients that had experienced a CVA or TBI and received my certified brain injury specialist certification. I received my Master of Science, Occupational Therapy from Eastern Kentucky University in Richmond, Kentucky. I am an active member of my state Occupational Therapy Association. My clinical interests include neurological rehabilitation and research for evidence-based practice and neuromuscular electrical stimulation.   
  
Achievements:   
Presenter at Kentucky Occupational Therapy Association Annual Conference, September 15th - 17th, Louisville, KY Effects of Neuromuscular Electrical Stimulation on Upper Extremity Recovery   
  
¬ Onsite Lead Instructor for NeuroRecovery Training Institute for the Upper Extremity Neuromuscular Electrical Stimulation Course, December 2016   
  
¬ Poster Presentation of Effects of Neuromuscular Electrical Stimulation on Upper Extremity Recovery at Academy of Spinal Cord Injury Professionals annual conference, September 2016   
  
¬ Deep Physical Agents Modalities Supervisor, August 2016   
  
¬ Onsite Team Instructor for NeuroRecovery Training Institute for the Upper Extremity Neuromuscular Electrical Stimulation course, May 2016   
  
¬ Platform presentation of Effects of Neuromuscular Electrical Stimulation of Upper Extremity Recovery at KentuckyOne Health Research Symposium, May 2016   
  
¬ NeuroRecovery Training Institute Upper Extremity Neuromuscular Electrical Stimulation course   
  
¬ NeuroRecovery Training Institute Intro Locomotor Training and Principles Online and Onsite Training   
  
¬ NeuroRecovery Training Institute Neuromuscular Recovery Scale   
  
¬ NeuroRecovery Training Institute Upper Extremity Outcomes Course   
  
¬ HIPAA/ CITI Training   
  
¬ Certified Brain Injury Specialist   
  
¬ Deep Physical Agents Modalities Certification   
  
¬ Level II Fieldwork Supervisor   
  
¬ Saebo Certification   
  
  
Education:   
  
08/2007-07/2010 M.S. Occupational Therapy, Eastern Kentucky University   
Grade achieved: 4.0   
  
08/2002-05/2006 B.A. Psychology, University of Kentucky   
Grade achieved: 3.8   
  
Work Experience:   
  
08/2015 - current, Research Occupational Therapist, Frazier Rehab Institute   
  
Main duties performed: Evaluation and tx of primarily patients with SCI in outpatient setting, NMES with clients, development and execution of plan of treatment and consultation on interdisciplinary team.   
  
04/2012-08/2015, Occupational Therapist, Cardianal Hill Rehabilitation Hospital   
  
Main duties performed: Inpatient Rehabilitation, evaluation and treatment of patients with primarily stroke diagnoses, development of treatment plan and interventions, participation on interdisciplinary team, mentor for new employees, supervision of fieldwork and observation students and lead OT for evaluation and intervention research for best practice.   
  
  
Technical: DPAM supervisor, Sage / RTI trained, CBIS certified, DPAM certification   
  
Interpersonal: effective team member, analytical   
  
Other:   
  
Hobbies and Interests   
  
Interested in neurological conditions and evidence-based practice, the effects of NMES on recovery

***Julie Pfeiffer, PT, DPT***  
Frazier Rehab Institute

*(no CV uploaded)*

***April Herrity, DC, PhD***  
Department of Neurological Surgery, University of Louisville

*(no CV uploaded)*

***Carrie Shogren, OTR/L***  
Courage Kenny Rehabilitation Institute, a Part of Allina Health

*(no CV uploaded)*

***Susan Harkema, PhD***  
Professor and Associate Director, Kentucky Spinal Cord Injury Research Center, University of Louisville Owsley B. Frazier Chair in Neurological Rehabilitation Research Director, Frazier Rehab Institute Director of the Neurorecovery Network

*(no CV uploaded)*

**40**

**An examination of the adapted Rotterdam Transition Profile and transition outcomes for young adults with SCI**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Susan Ryerson Espino, PhD***  
Shriners Hospitals for Children Chicago

**CV:**  
BIOGRAPHICAL SKETCH   
  
Name: Susan Ryerson Espino, PhD   
  
Title: Associate Investigator, Shriners Hospitals for Children Chicago   
  
A. Personal Statement: I am a practicing community psychologist, researcher and program evaluator. As part of the Shriners Scientific staff, I am responsible for developing, promoting, and conducting interdisciplinary pediatric rehabilitation research related to patient populations including those with spinal cord injury, cerebral palsy, spina bifida, and osteogenesis imperfecta. I have a particular interests in research, evaluation and program development work that involve consumer collaboration and emphasize quality of life.   
  
B. Positions and Honors   
  
1.January 2016- Present Associate Investigator, Shriners Hospitals for Children Chicago. Responsible for developing, promoting, and conducting interdisciplinary rehabilitation research related to patient populations and families served by Shriners Hospitals for Children – Chicago (e.g., spinal cord injury, cerebral palsy, spina bifida, osteogenesis imperfecta).   
  
Co-investigator (2016-present) Understanding the Transition to Adulthood among Youth with Spinal Cord Injury. Shriners Hospitals for Children, Principal Investigator Kathy Zebracki   
  
Co-investigator (Fall 2015-present) Relationships between social participation, quality of life and psychosocial outcomes, Principal Investigator Lawrence Vogel   
  
Co-investigator (Fall 2015-present) Caring for Caregivers: Supporting Caregivers of Youth with SCI. Craig H. Neilsen Foundation. Principal Investigator, Erin K. Hayes   
  
2. October 2015 - Present Adjunct Professor & Co-Principal Investigator, Marquette University. Department of Defense AWARD NUMBER: W81XWH-14-1-0621 The Process of Adjustment Among Caregivers of Individuals with Spinal Cord Injury: A Qualitative Study   
  
3. August 2009 –Present Independent Consultant   
  
2010-Present The Ruth M. Rothstein CORE Center, the Cook County Health and Hospital System, and Hektoen Institute for Medical Research   
  
Co-investigator (Fall 2013-Present) Proyecto Promover. Funders: HRSA/SPNS Culturally Appropriate Interventions of Outreach, Access and Retention among Latino/a Populations   
  
Co-investigator (2010-present) Evaluation of Project WE CARE. Funders: Health Resources and Services Administration, Special Project of National Significance, Enhancing Access to and Retention in HIV Care. HIV/AIDS Care for Women of Color Initiative   
  
Chicago Public Schools (2009-present)   
  
Selected Honors:   
  
Fall 2005 American Psychological Association Dissertation Award, $1000   
Fall 2005 University of Illinois Provost Award for Graduate Research, $ 2,750   
Fall 2005 University of Illinois, Department of Psychology, Dissertation Support, $750   
August 2003 – Dec 2005 Prevention Predoctoral Fellow, NIMH Prevention Training Research. Program in Urban Children's Mental Health and AIDS, Department of Psychology, University of Illinois at Chicago. Drs. Roger Weissberg and Robin Miller.   
  
C. Contributions to Science   
  
Two of my most significant contributions to science and practices include 1) helping to further operationalize and advocate for ecological inquiry in community research and interventions and 2) helping applied interventionists and researchers conduct process evaluation and qualitative research.   
  
Operationalizing & Advocating for Ecological Inquiry:   
  
One distinctive approach to community psychology intervention research involves finding ways to contribute to the development of communities. Ecological inquiry is a primary theoretical framework for this work however in practice our work contains visible evidence of this inquiry than advocated. I have partnered with colleagues to elevate the importance of ecological inquiry and publish heuristic frameworks to guide practice and writing to share this inquiry more publically.   
  
1. Trickett, E., Ryerson Espino, S. & Hawe, P. (2011). How are community interventions conceptualized and conducted? An analysis of published accounts. Journal of Community Psychology, 39(5), 576-591.   
2. Ryerson Espino, S. & Trickett, E. (2008). The Spirit of Ecological Inquiry: An analysis of research relationships within published community psychology intervention research. American Journal of Community Psychology, 42(1/2), 60-78.   
3. Hayes, E., Ryerson Espino, S., Taylor Ritzler, T., Trickett, E. J., & Wilson, B. D. M. (listed in alphabetical order) (2005). A Tribute to James Gordon Kelly. American Journal of Community Psychology, 35(1/2), 23-34.   
4. Trickett, E. J., & Ryerson Espino, S. (2004). Collaboration and social inquiry: Multiple meanings of a construct and its role in creating useful and valid knowledge. American Journal of Community Psychology, 34 (1/2), 1-69.   
  
Published Process Evaluation and Qualitative Research of Applied Interventions and Research   
  
An important area of community psychology is to help bridge the gap between research and practice. I have worked over the last seven years within applied settings helping practitioners think critically about their applied research and interventions. I have also partnered with practitioners in the publication of process and qualitative research such that their practice and learnings can inform academia and other practitioners.   
  
1. Ryerson Espino S, Kelly EH, Rivelli A, Zebracki K, and Vogel L (In Press). It is a marathon rather than a sprint: an initial exploration of unmet needs and support preferences of caregivers of children with SCI. Spinal Cord.   
2. Rivelli, A., Kelly, E. H., Ryerson Espino, S., Vogel, L.C. (In Press). Development of the Parent Forum: An In-Person Approach to Supporting Caregivers of Youth with Spinal Cord Injury. The Journal of Spinal Cord Medicine.   
3. Gonzalez, M., Precht, A., Fletcher, J.,Catrambone, J., Bailey, L. & Ryerson Espino, S. (2016). Welcome back survey: exploring concerns impacting HIV care engagement and retention. AIDS Care: Psychological and Socio-medical Aspects of AIDS/HIV, 28(9), 1128-1131.   
4. Ryerson Espino, S., Precht, A., Gonzalez, M., Garcia, I., Eastwood, E.A., Henderson, T., Blank, A.E., & Karasz, A. (2015). Implementing Peer-Based HIV Interventions in Linkage and Retention Programs: Successes and Challenges. Journal of HIV/AIDs and Social Services, 14(4) 417-431.   
5. Ryerson Espino, S., Flecher, J., Gonzalez, M., Precht, A., Xavier, J.,& Matoff-Stepp, S. (2015). Violence screening and viral load suppression among HIV positive women of color. AIDS Patient Care and STDs, 29 (Supplement 1), S36-S41.   
6. Precht, A., Ryerson Espino, S., Villela Perez, V., Amodei, N., Miller, A., & Gonzalez, M. (2015). Healthy Relationships: The adoption, adaptation, and implementation of a DEBI in two clinical settings. Health Promotion Practice, 15(3), 454-463.   
7. Taussig, S., Gonzalez Drigo, M., Ryerson Espino, S., Braz, G., Norels, G. (2012). Implementing Routine HIV Testing in Community Based Health Clinics. Poster Presentation. Ryan White All Grantee Meeting. Washington DC.   
  
D. Research Support   
  
1. January 2016 – present Co-investigator   
Understanding the Transition to Adulthood among Youth with Spinal Cord   
Injury. Funder: Shriners Hospitals for Children Grant, Principal Investigator Kathy Zebracki   
2. Fall 2015 – present Co-investigator   
Relationships between social participation, quality of life and psychosocial outcomes, Principal Investigator Lawrence Vogel   
3. Fall 2015 – present Co-investigator   
Caring for Caregivers: Supporting Caregivers of Youth with SCI. Funder: Craig H. Neilsen Foundation. Principal Investigator, Erin K. Hayes   
4. Fall 2014 –present Co-PI (former Co-investigator, 2014-2015)   
The Process of Adjustment Among Caregivers of Individuals with Spinal Cord Injury: A Qualitative Study. Funder: Department of Defense AWARD NUMBER: W81XWH-14-1-0621 Principal Investigator Lawrence Vogel (current) and Erin Kelly (former)   
5. Fall 2013-present Co-investigator   
Proyecto Promover, The Ruth M. Rothstein CORE Center, the Cook County Health and Hospital System, and Hektoen Institute for Medical Research. Funders: Health Resources and Services Administration, Special Project of National Significance, Culturally Appropriate Interventions of Outreach, Access and Retention among Latino/a Populations. Principal Investigator Pamela Vergara Rodriguez.   
6. Fall 2010 – present Co-investigator   
Evaluation of Project WE CARE, The Ruth M. Rothstein CORE Center, the Cook County Health and Hospital System, and Hektoen Institute for Medical Research. Funders: Health Resources and Services Administration, Special Project of National Significance, Enhancing Access to and Retention in Quality HIV/AIDS Care for Women of Color Initiative. Principal Investigator Marisol Gonzalez.   
7. Spring 2005 – 2008 Principal Investigator   
Perspective Matters: Listening to Caribbean Latina newcomers in transition to US high school. Funders: American Psychological Association Science Directorate , the University of Illinois at Chicago Provost’s Office, and Department of Psychology   
8. Fall 2006 - January 2007 Post Doctoral Fellow & Graduate Assistant (Spring 2004-Fall 2006)   
Community Health Interventions International Collaborative on Complex Interventions, Funder: Canadian Institutes of Health Research. Principal Investigators– Edison Trickett & Penelope Hawe.   
9. July 2004 – Dec. 2004 Graduate Research Assistant   
Big City Initiative Ethnographic Evaluation University of Illinois at Chicago Center for Research on Women and Gender, Principal Investigator: Janise Hurtig.   
10. Jan., 2003 – January 2007 Graduate Research Assistant   
Ethnography of Newcomer Centers. Principal Investigator: Edison Trickett.   
11. Jan., 2001 - January 2007 Graduate Research Assistant   
Former Soviet Refugee and Immigrant Acculturation and School Adaptation, Principal Investigator: Dina Birman.   
12. Jan., 2002 – Sept., 2002 Graduate Research Assistant   
Cross Cultural Research on Cognitive Disabilities Principal Investigator: Christopher Keys.   
13. Aug., 1999 – Aug., 2001 Graduate Research Assistant   
Empowering Choices for Low Income Minority Youth with Disabilities Graduating from High School. Funder: U.S. Department of Education, Rehabilitation Services Administration Principal Investigators: Fabricio Balcazar and Christopher Keys.   
14. Aug. 2000 - May 2001 Graduate Research Assistant   
Graduate Studies with Vision Impairments Principal Investigator: Scott Feldman   
15. Aug. 1999 – Aug. 2000 Graduate Research Assistant   
A Comprehensive Model for Empowering Low Income Minority Youth with Disabilities for Transition. Funder: U.S. Department of Education, Rehabilitation Services   
Administration. Principal Investigators: Fabricio Balcazar and Christopher Keys.

***Tyler Kalinich,***   
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Lara Anderson,***   
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Erin Kelly, PhD***  
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Kathy Zebracki, PhD***  
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

**41**

**Identifying propulsion and non-propulsion activity in manual wheelchair users with spinal cord injury in their free-living environments using wearable inertial sensors**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Emma Fortune, PhD***  
Mayo Clinic

**CV:**  
Biographical Sketch   
Name: Emma Fortune, PhD   
Position Title: Research Associate, Health Sciences Research, Mayo Clinic; Assistant Professor, Biomedical Engineering/Health Care Systems Engineering, Mayo Clinic Graduate School, Rochester MN   
  
A. Personal Statement   
My research over the past 8 years has focused on musculoskeletal biomechanics and wearable sensor research with a primary focus on bone and joint health and remote human activity monitoring used as a functional outcome. During this time I have developed novel algorithms for analyzing biomarkers of human movement in the free-living environment obtained from wearable sensors.   
Both commercially-available and custom-built devices in the literature perform with poor accuracy for slow walking speeds which are typical of older populations. I have developed novel validation protocols and algorithms which can be successfully used, unlike other existing algorithms, to track physical activity and posture in patients even with limited mobility. In addition to inaccurate physical activity measures being a major issue for assessing surgical, rehabilitation or treatment outcomes, accurate physical activity measures are now also being required for medical reimbursement regarding technology. My publications document the first algorithms to accurately classify posture, and detect activity and steps for gait velocities as low as 0.1 m/s in adults ranging from 19 to 88 years old without the need for device calibration. My algorithms can perform accurately with as little as one activity monitor worn on the waist, thigh or ankle. I have been collecting activity monitor data on both healthy and patient populations, including subjects who are able-bodied, with amputations or are manual wheelchair users, in the field over the last 8 years and am currently using these algorithms to classify posture and measure physical activity in the free-living environment. My algorithms have also been used to assess surgical outcomes for a number of Orthopaedic Surgery procedures in the Mayo Clinic. In addition to detecting physical activity and steps, activity monitors can also be used to quantify the intensity levels of activities and to estimate gait kinetics such as dynamic skeletal loading. The intensity of physical activity has been consistently shown in the literature to be of significant importance in regards to both bone and cardiovascular health. My publications are among the first to sufficiently document how body segment accelerations are related to activity levels and gait kinetics at a wide range of gait velocities and activities. They are also the first to investigate the use of an ankle-worn accelerometer to estimate ground reaction force and demonstrated that ankle acceleration is more strongly correlated with ground reaction force compared to previously investigated locations such as the tibia, thigh or waist. My work has additionally highlighted the importance of using activity monitors with the appropriate measurement ranges which has been a common cause of issues in the field.   
I received 2 years of funding in July 2016 through an NIH R21 grant application aimed at developing a remote monitoring tool to predict bone mineral density changes related to dynamic joint loading, on which I am the principal investigator. On this study, I lead a team consisting of a post-doctoral fellow, a study coordinator and kinesiologist. After 15 months, data collections have been completed 9 months ahead of schedule allowing ample time for additional analyses and manuscripts. I am currently preparing an NIH R01 (Co-PI) application to validate this tool in a larger subject cohort and test its effectiveness as an interventional tool.   
In addition to my independent research, I also work collaboratively with the Human Factors Engineering, Spinal Cord Injury, Biomechanics, Assistive and Restorative Technology, and Motion Analysis Laboratory groups and consultants in Endocrinology and Rheumatology in the Mayo Clinic and with the Motor Control Research group in the University of Illinois at Urbana-Champaign. My research extends beyond remote monitoring and gait analysis interventions. I have published work on the validation of an instrumented force treadmill as a novel instrument to assess dynamic postural stability. My current collaborative research activities focus on developing algorithms using inertial measurement units and instrumented force gloves to measure shoulder activity, weight shifting, and wheelchair propulsion in manual wheelchair users to estimate the exposure to activities detrimental to shoulder health in the free-living environment.   
  
B. Positions and Honors   
Positions   
2005-2009 Graduate Teaching Assistant, University College Dublin, Dublin, Ireland   
2010-2011 Biomedical Engineer, Health Research and Innovation Group, Intel/Technology Research for Independent Living (TRIL) Centre, Ireland   
2011-2014 DOD Research Fellow, Department of Orthopedic Surgery, Mayo Clinic   
2014-2016 AOPA Senior Research Fellow, Department of Orthopedic Surgery, Mayo Clinic   
2015-Present Assistant Professor of Biomedical Engineering, Mayo Clinic Graduate School   
2016-Present Assistant Professor of Health Care Systems Engineering, Mayo Clinic Graduate School   
2016-Present Research Associate, Department of Health Sciences Research, Mayo Clinic   
  
Honors/Appointments   
2007-2008 FAS Science Challenge Internship Award, Duke University Medical Center   
2011 Irish Research Council for Science, Engineering and Technology Embark Postdoctoral Fellowship Award   
2012 Orthopedic Surgery Research Fellow Award, Mayo Clinic   
2014, 2015 Orthopedic Surgery Research Fellow Award Finalist, Mayo Clinic   
2016-2018 NIH R21 Exploratory/Developmental Research grant award funded by the National Institute of Arthritis and Musculoskeletal and Skin Disease.   
  
  
C. Contribution to Science - full Fortune citation list at:   
https://www.ncbi.nlm.nih.gov/sites/myncbi/1NQy-6xLrqCQ7/bibliography/41018319/public/?sort=date&direction=descending   
1. Investigation of factors influencing muscle fiber excitability   
My early publications from my Ph.D. research used computational modeling to investigate the effects of changes in muscle fiber electrical and geometrical properties on muscle fiber excitability and fatigue. These publications describe the most detailed muscle fiber model incorporating ion channel processes to date and reported the individual effects of a wide range of muscle fiber properties on excitability which cannot be measured in in vivo or in vitro models. The advantage of computational modeling is that the interactions of individual muscle fiber parameters on muscle fiber properties can be investigated in isolation or in combination to characterize their behavior. One of these publications (c) also documents the first muscle fiber model to correctly simulate the experimentally observed relationship between muscle fiber conduction velocity and motor unit firing rate and was the first study to provide evidence to suggest the possible underlying mechanisms responsible. I served as the primary author in all of these studies.   
  
a. Fortune E & Lowery MM (2007) The effect of extracellular potassium concentration on muscle fiber conduction velocity using model simulation. IEEE Eng Med Biol Soc 2007:2726-2729.   
PMID180025585.   
b. Fortune E & Lowery MM (2009) Effect of extracellular potassium accumulation on muscle fiber conduction velocity: a simulation study. Ann Biomed Eng. 37(10):2105-2117. PMID19588250.   
c. Fortune E & Lowery MM (2011) Simulation of the interaction between muscle fiber conduction velocity and instantaneous firing rate. Ann Biomed Eng. 39(1):96-109. PMID20848314.   
d. Fortune E & Lowery MM (2012) Effect of electrical and geometrical membrane properties on muscle fibre conduction velocity. Med Biol Eng Comp. 50(6):617-629. PMID22430618.   
  
2. Novel algorithms for objective monitoring of physical activity   
Activity monitors are useful tools for tracking physical activity in the free-living environment. Both commercially-available and custom-built devices in the literature perform with poor accuracy for slow walking speeds which are typical of older populations. In addition to inaccurate physical activity measures being a major issue for assessing surgical, rehabilitation or treatment outcomes, accurate physical activity measures are now also being required for medical reimbursement regarding technology. Our publications document the first algorithms to accurately classify posture, and detect activity and steps for gait velocities as low as 0.1 m/s in adults ranging from 19 to 88 years old without the need for device calibration. Our algorithms can perform accurately with as little as one activity monitor worn on the waist, thigh or ankle. We filed a U.S. patent on our algorithms in July 2014. We have been collecting activity monitor data on both healthy and patient populations in the field over the last 5 years and are currently using our algorithms to classify posture and measure physical activity in the free-living environment. A number of publications on our field-based work are currently in preparation or in review. I served as a primary or secondary author in all of our published lab-based validation studies.   
  
a. Lugade V, Fortune E, Morrow M, & Kaufman K (2014) Validity of using tri-axial accelerometers to measure human movement-part I: posture and movement detection. Med Eng Phys. 36(2):169-176. PMC3866210. PMID23899533.   
b. Fortune E, Lugade V, Morrow M, & Kaufman K (2014) Validity of using tri-axial accelerometers-part II: step counts at a wide range of gait velocities. Med Eng Phys. 36(6):659-669. PMC4030415. PMID24656871.   
c. Fortune E, Lugade V, & Kaufman K (2014) Posture and movement classification: the comparison of tri-axial accelerometer numbers and anatomical placement. J Biomech Eng. 136(5):051003. PMC4023813. PMID24337255.   
d. Fortune E, Lugade VA, Amin S, & Kaufman KR (2015) Step detection using multi- versus single tri-axial accelerometer-based systems. Phys Meas. 36(12): 2519-2535. PMID26595421.   
  
  
3. Novel algorithms for objective assessment of physical activity intensity and dynamic loading   
10,000 steps per day have been reported as sufficient to maintain a healthy bone mineral density at a healthy body weight but this does not account for step acceleration magnitude or dynamic loading. In addition to detecting physical activity and steps, activity monitors can also be used to quantify the intensity levels of activities and to estimate gait kinetics such as dynamic loading. The intensity of physical activity has been consistently shown in the literature to be of significant importance in regards to both bone and cardiovascular health. These publications are among the first to sufficiently document how body segment accelerations are related to activity levels and gait kinetics at a wide range of gait velocities and activities. They are also the first to investigate the use of an ankle-worn accelerometer to estimate ground reaction force and demonstrated that ankle acceleration is more strongly correlated with ground reaction force compared to previously investigated locations such as the tibia, thigh or waist. Our work additionally highlighted the importance of using activity monitors with the appropriate measurement ranges which has been a common cause of issues in the field. I served as a primary or tertiary author in all of these studies.   
  
a. Fortune E, Tierney M, Scanaill CN, Bourke A, Kennedy N, Nelson J. (2011) Activity level classification algorithm using SHIMMER™ wearable sensors for individuals with rheumatoid arthritis. IEEE Eng Med Biol Soc 2011:3059-3062. PMID22254985.   
b. Morrow MM, Hurd WJ, Fortune E, Lugade VA, & Kaufman KR (2014) Accelerations of the waist and lower extremities over a range of gait velocities to aid in activity monitor selection for field-based studies. J Appl Biomec. 30(4): 581-585. PMC4180224. PMID24610379.   
c. Fortune E, Morrow MM, & Kaufman KR (2014) Assessment of gait kinetics using tri-axial accelerometers. J Appl Biomec. 30(5): 668-674. PMC4332389. PMID25010675.   
  
D. Research Support   
Ongoing Research Support   
Project #: Neilsen Funds PI: Melissa Morrow Funding Agency: Neilsen Foundation   
Grant Title: “Evidence for Maintaining Mobility and Quality of Life for Manual Wheelchair Users”   
Grant Dates: 9/1/1512/31/17 (NCE) Role: Research Associate   
  
Project #: 1 R21 AR066643-01 PI: Emma Fortune Funding Agency: NIH NIAMS   
Grant Title: “Biomarker for Skeletal Loading Using Tri-axial Accelerometers”   
Grant Dates: 7/1/16–6/30/18 (NCE) Role: Principal Investigator   
  
Project #: 1 R01 HD084423-01 PI: Melissa Morrow Funding Agency: NIH NI   
Grant Title: “Natural History of Shoulder Pathology in Wheelchair Users,”   
Grant Dates: 8/6/15-5/31/20 Role: Research Associate   
  
Project #: DOD W81XWH-15-1-0484-1 PI: Melissa Morrow Funding Agency: DOD   
Grant Title: “Development of a Personal Use Seating Pressure Measurement System”   
Grant Dates: 9/1/15–8/31/17 Role: Research Associate

***Beth Cloud, PT, DPT, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Stefan Madansingh, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Dennis Murphree, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Kristin Zhao, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Melissa Morrow, PhD***  
Mayo Clinic

*(no CV uploaded)*

**42**

**Sources of Injustice among Individuals Living with Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Kimberley Monden, PhD***  
Craig Hospital

**CV:**  
Biographic Sketch   
  
Name: Kimberley R. Monden, PhD   
  
Position Title: Principal Investigator, Craig Hospital, Englewood, CO   
  
A. Personal Statement   
My education and clinical training were focused on counseling psychology with an emphasis in health and rehabilitation psychology. As a Licensed Psychologist I have clinical and research expertise working with individuals with traumatic injuries such as spinal cord injury, amputation, other musculoskeletal traumas, brain injury, and chronic pain. I have an interest in identifying psychological factors and interventions that foster resilience and adaptive psychosocial adjustment after injury; thus my clinical and research efforts aim to improve quality of life, long-term psychosocial outcomes, and clinical effectiveness. I have served as a Principal Investigator, Co-Investigator, and Consultant on multi-site trials and longitudinal observational studies in the area of physical rehabilitation after traumatic injury.   
  
B. Positions and Honors   
Positions and Employment   
2008-2009 Intern in Clinical Psychology, University of Kansas Medical Center, Kansas City, KS   
2009-2010 Fellow in Health Psychology, University of Wisconsin Hospital & Clinics; Access Community Health Centers, Madison, WI   
2010-2011 Staff Psychology, Geropsychology & Rehabilitation Support Services, Vericare, Dallas, TX.   
2011-2013 Clinical Health/Rehabilitation Psychologist, Baylor Institute for Rehabilitation, Dallas, TX.   
2013-2015 Research & Surgical Education Associate, Baylor University Medical Center, Dallas, TX   
2014-2016 Clinical Assistant Professor, Texas A&M Health Science Center, College of Medicine.   
2015-2016 Director of Surgical Education & Program Development, Baylor University Medical Center, Dallas, TX   
2015-2016 Adjunct Lecturer, Southern Methodist University, Dallas, TX.   
2016- Principal Investigator, Craig Hospital, Englewood, CO.   
2016- Licensed Psychologist, CO.   
  
Other Experience and Professional Memberships   
2002- Member, American Psychological Association   
2005-2006 Student Affiliate Group (SAG) Regional Representative, American Psychological Association   
2010- Member, National Register of Health Service Providers   
2011- Member, Academy of Spinal Cord Injury Professionals   
2013-2017 Member, Association for Surgical Education   
2014-2016 Chair, Communications Committee, Division 22 (Rehabilitation Psychology), American Psychological Association   
2014-2016 Member, Physician Support Committee, Baylor University Medical Center.   
2014-2016 Member, Simulation Education and Research Council, Baylor University Medical Center   
2014-2016 Member, Multi-Institutional Education Research Group (MERG), Association for Surgical   
2015-2017 Member, American College of Healthcare Executives.   
2016- Treasurer, Division 22 (Rehabilitation Psychology), American Psychological Association   
2016- Member, American Spinal Injury Association   
2017- Member, International Spinal Cord Society   
2017- Member, American Congress of Rehabilitation Medicine   
  
Honors   
2003 Psi Chi National Research Award. Presented by the American Psychological Association.   
2006 Richard M. Rundquist Scholarship. Presented by the University of Kansas, Department of Psychology and Research in Education to encourage students to prepare for careers in education.   
2006 & 2008 School of Education Achievement Scholarship. Presented by the University of Kansas, Department of Psychology and Research in Education for academic excellence and scholastic and professional accomplishments.   
2007 Helen Walton Ellsworth Scholarship. Merit based scholarship presented by the University of Kansas, Department of Psychology and Research in Education.   
2008 Mary Oyster O’Guinn Scholarship. Merit based doctoral level scholarship presented by the University of Kansas, Department of Psychology and Research in Education.   
2015 Presidential Citation Award. Presented by the Division of Rehabilitation Psychology of the American Psychological Association for extraordinary service to the Division as Chair of the Communications Committee, member of the Rehabilitation Psychology 2015 Program Committee, and member of the Renaming the Division Taskforce.   
2016 Surgical Education Research Fellowship (SERF). Presented by the Association for Surgical Education for a one year fellowship designed to equip investigators to implement and report research studies in the field of surgical education.   
2016 Presidential Citation Award. Presented by the Division of Rehabilitation Psychology of the American Psychological Association for extraordinary service to the Division as Chair of the Communications Committee, member of the Rehabilitation Psychology 2016 Program Committee, and development and maintenance of the Division’s website.   
2017 Harold Yuker Award for Research Excellence. Presented by the Division of Rehabilitation Psychology of the American Psychological Association for the best paper published in the journal Rehabilitation Psychology, 2016.   
  
C. Contributions to Science   
1. I led a multi-institutional research team working to identify individuals who are at greater risk for developing/experiencing detrimental psychosocial outcomes and secondary chronic health issues post spinal cord injury (SCI). My long-term goal is to develop, implement, and disseminate evidence-based interventions to improve patient outcomes. In an attempt to identify individuals “at risk” for secondary and chronic health issues post SCI, our efforts have historically focused on patients’ resilience and more recently on injustice. To date, our efforts have successfully resulted in the publication of two articles and enrollment of approximately 100 individuals with SCI. Several important findings have emerged from our work. First, we identified that resilient individuals (either during inpatient rehabilitation or at 3-month follow-up), were less likely to be depressed, had more positive thoughts (e.g., optimism, hope, and positive attitude) and reported greater perseverance, determination, and social support from friends and family than individuals with low resilience. Second, we found that resilience was a trait-like characteristic as it remained stable across inpatient rehabilitation, 3-month follow-up, and at 12-month follow-up. Results from unpublished work has also revealed injustice as a key factor in adjustment to physical injury/trauma. Our research is the first to examine the role of injustice in the spinal cord injury population. We have presented our findings at national and international conferences. Based on interest in these forums we have received two invitations for manuscript submissions. As a result of this body of work, we are beginning to understand important factors that may leave patients’ at higher risk for poor psychosocial and health-related outcomes (e.g., pain) after injury.   
a. Trost, Z., Scott, W., Buelow, M., Nowling, L., Turan, B., Boals, A., & Monden, K.R. (2017). The association between injustice perception and psychological outcomes in an inpatient spinal cord injury sample: The mediating effects of anger. Spinal Cord. Advance online publication. doi: 10.1038/sc.2017.39. PMID: 28555664.   
b. Monden, K.R., Trost, Z., Scott, W., Bogart, K.R., & Driver, S.J. (2016). The unfairness of it all: Exploring the role of injustice appraisals in rehabilitation outcomes. Rehabilitation Psychology, 61(1), 44–53.   
c. Trost, Z., Monden, K.R. (2016). Perceived injustice predicts intent to litigate: Findings from a spinal cord injury sample. Psychological Injury & Law, 9(1), 31–40.   
d. Monden, K.R., Trost, Z., Catalano, D., Garner, A., Symcox, J., Driver, S., Hamilton, R.G., & Warren, A.M. (2014). Resilience following spinal cord injury: A phenomenological view. Spinal Cord, 52(3), 197–201.   
  
2. In addition to the contributions described above, my publications have also addressed access to care and utilization of behavioral health services in the primary care setting and spinal cord injury population. These studies emphasized the effectiveness of integrated behavioral health services for treatment of depression as well as barriers to treatment for patients’ with physical disabilities, specifically spinal cord injury.   
a. Hamilton, R., Driver, S.J., Noorani, S., Callender, L., & Monden, K.R. (2016). Utilization and access to healthcare services among community dwelling people living with spinal cord injury. Journal of Spinal Cord Medicine, 40(3), 321-329.   
b. Seranno, N., Molander, R., Monden, K.R., Gorsshans, A., & Krahn, D. (2012). Exemplars in the use of technology for management of depression in primary care. Wisconsin Medical Journal, 111, 112–118.   
c. Seranno, N., & Monden, K.R. (2011). The effect of behavioral health consultation on the care of depression by primary care clinicians. Wisconsin Medical Journal, 110, 113–118.   
  
Complete List of Published Works in my Bibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/1tIelpsOXCgQz/bibliography/45830206/public/?sort=date&direction=ascending   
  
D. Research Support   
Ongoing Research Support   
90OHF0002-01-00 (NIDILRR) Monden (PI) 09/30-2017 – 09/29/2022   
Re-inventing yourself after spinal cord injury: a multi-site randomized controlled trial of an intervention to improve outcomes after spinal cord injury   
The goal of this study is to test the an intervention to help individuals with SCI build skills that help them adapt to the stresses associated with a chronic physical disability, alleviate the consequences of anxiety and depression, and enhance subjective well-being.   
Role: Co-PI   
  
Craig Hospital Foundation Grant Monden (PI) 02/01/2017 – 01/31/2018   
Source of injustice among individuals living with spinal cord injury   
The goal of this project is to use a qualitative approach to develop an in-depth characterization of injustice perception (e.g., sources, contributing factors) following spinal cord injury to help inform future intervention.   
Grant Dates: 2/01/2017 – 1/31/2018   
Role: PI   
  
R-1511-33005 (PCORI) Richardson (PI) 10/01/2016 – 09/30/2019   
Comparative effectiveness of sleep apnea assessment strategies to maximize TBI rehabilitation outcomes   
(C-SAS)   
This study is a multi-center comparative effectiveness study of sleep apnea screening (Aim 1) and diagnostic (Aim 2) measurement tools.   
Role: Site PI   
  
Knoebel Center for the Study of Aging Linesman (PI) 10/01/2016 – 11/30/2017   
Aging and glutathione antioxidant status as major determinants of injury and recovery from traumatic injury   
Collaborative study with the University of Denver to examine the relationship between blood glutathione levels and functional recovery following traumatic brain injury.   
Role: Site PI   
  
Colorado Traumatic Brain Injury Trust Fund Makley (PI) 08/01/2016 – 06/30/2017   
Optimized sleep after brain injury: A pilot study   
The goal of this study is to determine the feasibility of implanting a sleep hygiene protocol within an inpatient TBI rehabilitation setting. Responsibilities include study implementation, data analysis, and dissemination.   
Role: Co-I   
  
Craig H. Neilsen Foundation (SCIRTS) Trost (PI) 08/31/2016 – 08/30/2018   
An interactive immersive virtual reality walking interface as treatment for neuropathic pain in spinal cord injury   
The goal of this project is to develop an interactive immersive virtual reality walking interface as treatment for neuropathic pain in spinal cord injury.   
Role: Consultant   
  
North American Spine Society Young Investigator Grant Trost (PI) 11/01/2015 – 10/31/2017   
Development of a virtual reality graded exposure intervention for chronic low back pain   
The goal of this project is to develop a virtual reality graded exposure intervention for chronic low back pain.   
Role: Consultant   
Completed Research Support   
University of North Texas Scholarly and Creativity Award Trost (Co-PI) 10/01/2014 – 09/30/2015   
Influence of psychosocial factors and resilience on health outcomes in patients with spinal cord injury   
The goal of this project was to assess the influence of psychosocial factors and resilience on health outcomes in patients with spinal cord injury.   
Role: Co-PI   
  
APS Sharon Keller Chronic Pain Research Program Trost (PI) 10/15/2015 – 05/19/2017   
Examining a virtual reality graded-exposure gaming intervention for chronic pain   
The goal of this project is to examine a virtual reality graded-exposure gaming intervention for chronic low back pain   
Role: Consultant

***Angie Philippus, BA***  
Craig Hospital

*(no CV uploaded)*

***Zina Trost, PhD***  
University of Alabama at Birmingham

*(no CV uploaded)*

**43**

**Targeting urological improvements with spinal cord epidural stimulation after spinal cord injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***April Herrity, DC, PhD***  
University of Louisville, Department of Neurological Surgery

**CV:**  
A. Personal Statement   
My research interests in the neuroscience field have focused on understanding the circuitry controlling urogenital and bowel function. Given deficits to bladder, bowel and sexual function consistently rank as top priority issues affecting quality of life and well-being after spinal cord injury, an understanding how injury impacts these systems will help direct therapeutic interventions including such rehabilitative measures as task-specific activity-based training and epidural stimulation. My role within the Department of Neurological Surgery and the Kentucky Spinal Cord Injury Research Center includes developing our Urogenital and Bowel Core Laboratory where we conduct experiments to objectively assess bladder and bowel dysfunction after spinal cord injury. I also work closely with other colleagues in the center on regulatory aspects of multiple studies including data monitoring, participant safety, study compliance, IRB, and FDA approvals. My experience in evaluating bladder dysfunction after spinal cord injury in adults and previous urological work in animal models will be a helpful factor as we proceed to investigate bladder outcomes in a porcine model of spinal injury.   
  
B. Positions and Honors   
Positions and Employment   
  
Graduate Student 08/09 12/14 Anatomical Sciences and Neurobiology University of Louisville University of Louisville   
  
Teaching Assistant 10/10 10/13 Neuroanatomy Laboratory University of Louisville University of Louisville   
  
Research Associate, Senior 12/14 01/17 Kentucky Spinal Cord Injury Research Center University of Louisville University of Louisville   
  
Lab Research Manager 02/17 08/2017 Kentucky Spinal Cord Injury Research Center University of Louisville University of Louisville   
  
Assistant Professor 09/17 Present Department of Neurological Surgery University of Louisville University of Louisville   
  
  
Other Experience   
2017 - Present Lead FDA Regulatory Coordinator, Urogenital and Bowel Projects, Neuroscience Collaborative Center   
2016 - Present Lead IRB Regulatory Coordinator, Urogenital and Bowel Projects, Neuroscience Collaborative Center   
2016 – Present Operations Director, Data Safety and Monitoring Board, Kentucky Spinal Cord Injury Research Center   
2016 - Present Autonomic Committee Member, NeuroRecovery Network, Frazier Rehab Institute   
2016 - Present Mentor, Trinity High School student Job Shadow Program   
2015 - Present Manager, Urogenital and Bowel Laboratory Core, Frazier Rehab   
2015 - Present Operations Director for Projects, Data Safety and Monitoring Board,   
University of Louisville, Frazier Rehab   
2014 - 2015 Chair, Graduate Student Committee for the 2015 Kentucky Spinal Cord and Head Injury Research Trust Symposium   
2013 - 2014 Mentor, Manual High School student science fair project   
2011 - 2014 Member, School of Medicine Graduate Council   
2010 - 2013 Laboratory Teaching Assistant, Neuroanatomy Course, University of Louisville   
2009 - 2014 Research Graduate Fellow, University of Louisville   
  
Honors and Awards   
2015 First Place, Poster presentation at Research Louisville, UofL   
2014 Graduate Dean’s Citation Award, Commencement, UofL   
2014 Third Place, Poster presentation at Research Louisville, UofL   
2013 First Place, Poster presentation at Neuroscience Day, UofL   
2012 Fall Student Spotlight Recipient, Kentucky Spinal Cord and Injury Research Center, University of Louisville   
2012 Student of the Month, School of Interdisciplinary Graduate Studies, University of Louisville   
2012 Second Place, Poster presentation at Neuroscience Day, University of Louisville   
2009-2011 Graduate Fellowship Awarded, University of Louisville   
  
C. Contributions to Science   
Publications   
  
Since 2014, the primary focus of my area of research has been investigating the impact of activity-based training on physiological systems such as bladder, bowel and sexual function as well as on quality of life in individuals with spinal cord injury. We are currently investigating the use of spinal cord epidural stimulation on bladder function post-injury working on developing optimal electrode configurations for bladder storage and voiding.   
  
Herrity AN, Angeli CA, Rejc E, Harkema SJ, Hubscher CH (2017) Lumbosacral spinal cord epidural stimulation improves voiding function after human spinal cord injury: A case report (In preparation).   
  
Herrity AN, Tolfo C, Lorenz D, Ugiliweneza B, Wang D, Tolle H, Gibson J, Sharo K, Coons E, Baig K, Harkema S (2017) Assessment of the impact of locomotor training on quality of life in spinal cord injured individuals within the NeuroRecovery Network (In preparation).   
  
Herrity AN, Ditterline B, Brown E, Ugiliweneza B, Wang D, Tolle H, Aslan S, Ovechkin A, Harkema S (2017) Impact of community-based fitness and wellness rehabilitation programs on overall health and quality of life after spinal cord injury (In preparation).   
  
Hubscher CH\*, Herrity AN\*, Williams CS, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ (2017). Improvements in bladder, bowel and sexual outcomes following task-specific locomotor training in human spinal cord injury. (PLOS One, under review)   
\*Equal contribution as first author   
  
Herrity AN, O’Brien KM, Sharo KL, Rizzo K, Garvin MF, Harkema SJ (2017) Progression of bladder and sensory recovery in a case of transverse myelitis (J Clin Nephrol Res 4(3): 1065).   
  
  
  
My graduate work examined the role of the vagus nerve, an extraspinal pathway, in both naïve and spinal cord injured rodents, through neuroanatomical tracing, electrophysiological recordings, and immunohistochemical procedures. I was also involved in projects where we investigated the effects of a locomotor training program on bladder outcomes post-injury.   
  
Ward PJ, Herrity AN, Harkema SJ, and Hubscher CH (2016). Training-induced functional gains following SCI: How much is enough? Neural Plasticity, vol. 2016, Article ID 4307694, 12 pages, 2016. doi:10.1155/2016/4307694.   
  
Hubscher CH, Montgomery LR, Fell JD, Armstrong JE, Poudyal P, Herrity AN, Harkema SJ (2016). Effects of exercise training on urinary tract function after spinal cord injury. Am J Physiol Renal Physiol. Mar 16 (epub ahead of print)   
  
Herrity AN (2014). The effect of spinal cord injury on vagal afferents. Dissertation Thesis, University of Louisville. Approved Dec 2. Committee Members: Hubscher CH(mentor), Bickford ME, Magnuson DS, Petruska JC, Stirling DP.   
  
Herrity AN, Petruska JC, Stirling DP, Rau KK, Hubscher CH (2015). The effect of spinal cord injury on the neurochemical properties of vagal sensory neurons. Am J Physiol Regul Integr Comp Physiol. Jun 15;308(12):1021-33.   
  
Herrity AN, Rau KK, Petruska JC, Stirling DP, Hubscher CH (2014). Identification of bladder and colon afferents in the nodose ganglia of male rats.   
J Comp Neurol. Nov 1;522(16):3667-82.   
  
Ward PJ, Herrity AN, Smith RR, Willhite A, Harrison BJ, Petruska JC, Harkema SJ, and Hubscher CH (2013). Novel multi-system functional gains via task specific training in spinal cord injured male rats. J Neurotrauma. May 1;31(9):819-33.   
  
Abstracts   
Herrity AN, Angeli CA, Rejc E, Harkema SJ, Hubscher CH (2017) Spinal cord epidural stimulation effects on urogenital and bowel outcomes. SFN, Washington D.C., November 11-15.   
  
Herrity AN, Ochsner JC, Nalle EM, Willhite AM, Harkema SJ (2017) Advancements in neuromuscular electrical stimulation strategies after spinal cord injury. ASCIP, Denver, September 3-6.   
  
Herrity AN, Hubscher CH, Willhite AM, Angeli CA, Harkema SJ (2017) Epidural stimulation effects on bladder function after spinal cord injury. ASCIP, Denver, September 3-6.   
  
Herrity AN, Hubscher CH, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ (2016) Improvements in bladder, bowel and sexual outcomes following task-specific training in human spinal cord injury. Society for Neuroscience, San Diego, November 12-15.   
  
Herrity AN, Hubscher CH, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ (2016) Improvements in bladder, bowel and sexual outcomes following task-specific training in human spinal cord injury. Society for Neuroscience, San Diego, November 12-15.   
  
Hubscher CH, Herrity AN, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ (2016) Targeting improvements in bladder function with epidural stimulation after human spinal cord injury. Society for Neuroscience, San Diego, November 12-15.   
  
Herrity AN, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ, Hubscher CH (2016). Improvements in bladder outcomes following task-specific training in human spinal cord injury. Neurotrauma Meeting, Lexington Kentucky, June 26-29.   
  
O’Brien K, Rizzo K, Sharo K, Herrity A, Harkema S (2016). Transition from Recovery-Based Rehabilitation to Wellness Program: Unexpected Physiological Gains. KYOne Research Day, Louisville, KY, May 11th and at ASCIP, Nashville, TN, Sept 4-7.   
  
Herrity AN, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ, Hubscher CH (2016). Urological gains following task-specific rehabilitation in human spinal cord injury. Neuroscience Day, University of Louisville, April 7th.   
  
Herrity AN, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ, Hubscher CH (2015). Locomotor training after human spinal cord injury: Improvements in urologic function. Research Louisville, University of Louisville, KY.   
  
Montgomery LR, Herrity AN, Harkema SJ, Hubscher CH (2016). Impact of exercise training on bladder function following spinal cord injury. Research Louisville, University of Louisville, KY   
  
Montgomery LR, Herrity AN, Harkema SJ, Hubscher CH (2015). Exercise-dependent modulation of neuro-urological health following spinal cord injury. 46.09/D36 SFN, Chicago, IL.   
  
Hubscher CH, Herrity AN, Montgomery LR, Willhite AM, Angeli CA, Harkema SJ (2015). Task-specific training-based rehabilitation improves bladder outcomes following human spinal cord injury. 226.16/H26 SFN, Chicago, IL.   
  
Hubscher CH, Montgomery LR, Fell JD, Poudyal P, Armstrong JE, Herrity AN, Harkema SJ (2015). Effects Of Physical Activity On Urinary Tract Function After Spinal Cord Injury. International Continence Society Meeting, Montreal, Canada.   
  
Herrity AN, Petruska JC, Rau KK, Stirling DP, Hubscher CH (2015). The effect of spinal cord injury on the neurochemical properties of vagal neurons. Kentucky Spinal Cord Head Injury Research Trust Symposium, Louisville, KY.   
  
Herrity AN, Petruska JC, Rau KK, Stirling DP, Hubscher CH (2014). The effect of spinal cord injury on bladder-specific nodose ganglion neurons. 422.11/Y6 SFN, Washington D.C.   
  
Herrity AN, Petruska JC, Rau KK, Stirling DP, Hubscher CH (2014). The effect of spinal cord injury on the neurochemical properties of vagal neurons. Research Louisville, University of Louisville, KY.   
  
Herrity AN, Rau KK, Petruska JC, Stirling DP, Hubscher CH (2013). Is the vagus an alternate pathway from the pelvic viscera to the brainstem? 831.26/LL5 SFN San Diego.   
  
Hubscher CH, Herrity AN, Rau KK, Petruska JC (2013). Impact of spinal cord injury on vagal afferents. 831.29/LL8 SFN San Diego.   
  
Herrity AN, Rau KK, Petruska JC, Stirling DP, Hubscher CH (2013). Spinal and vagal afferent innervation of the male rat urinary bladder and distal colon. Research Louisville, University of Louisville, KY.   
  
Herrity AN, Rau KK, Petruska JC, Hubscher CH (2013). The identification and neurochemical profile of bladder and colon vagal afferents in the male rat. Kentucky Spinal Cord Head Injury Research Trust Symposium, Louisville, KY   
  
Herrity AN, Rau KK, Petruska JC, Hubscher CH (2013). The identification and neurochemical profile of bladder and colon vagal afferents in the male rat. Neuroscience Day, University of Louisville, KY.   
  
Herrity AN, Ward PJ, Harkema SJ, Hubscher CH (2012). Locomotor training time affects at-level allodynia in a rodent model of spinal cord injury. 85.18/NN8, SFN New Orleans, LA.   
  
Herrity AN, Ward PJ, Harkema SJ, Hubscher CH (2012). Locomotor training duration impacts at-level allodynia in a rodent model of spinal cord injury. Research Louisville, University of Louisville, KY.   
  
Herrity AN, Ward PJ, Harkema SJ, Hubscher CH (2012). Locomotor training ameliorates spinal cord injury induced at-level hypersensitivity. Neuroscience Day, University of Louisville, KY.   
  
Ward PJ, Shah CN, Herrity AN, Atkinson DA, Stewart BR, Harkema SJ, Hubscher CH (2012). Step training improves overground locomotion following moderate contusion in rats: open field scoring, kinematics, and gait analysis. 85.17/NN7, SFN New Orleans, LA.   
  
Ward PJ, Herrity AN, Hubscher CH (2011) Polyuria in a rat model of contusive spinal cord injury.160.06/CC5, SFN Washington, D.C.   
  
Herrity AN, Ward PJ, Harkema SJ, Hubscher CH (2010) Body Weight Supported Treadmill Training Decreases At-Level Allodynia Following Spinal Cord Injury in Male Rats. 681.17/TT6, SFN San Diego, CA.   
  
  
  
D. Research Support   
  
2012-2015 F31 Ruth L. Kirschstein National Research Service Award (NRSA), “Effects of spinal cord injury on vagal afferents from the rat bladder and colon.”

***Charles Hubscher, PhD***  
University of Louisville, Department of Anatomical Sciences and Neurobiology

*(no CV uploaded)*

***Claudia Angeli, PhD***  
University of Louisville, Frazier Rehab Institute

*(no CV uploaded)*

***Enrico Rejc, PhD***  
University of Louisville, Department of Neurological Surgery

*(no CV uploaded)*

***Christie Ferreira, BS***  
University of Louisville, Department of Neurological Surgery

*(no CV uploaded)*

***Susan Harkema, PhD***  
University of Louisville, Department of Neurological Surgery

*(no CV uploaded)*

**44**

**Influence of a posterior ligamentous complex injury on the mechanical condition of the spinal cord during flexion**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Wagnac Eric, PhD***  
École De Technologie Supérieure

*(no CV uploaded)*

***Jérémy Hagen, M.A.Sc.***  
École De Technologie Supérieure

*(no CV uploaded)*

***Marie-Hélène Beauséjour, PhD candidate***  
École De Technologie Supérieure

*(no CV uploaded)*

***Jean-Marc Mac-Thiong, MD, PhD***  
University of Montreal

*(no CV uploaded)*

***Pierre-Jean Arnoux, PhD***  
Aix-Marseille University

*(no CV uploaded)*

***Yvan Petit, PhD***  
École De Technologie Supérieure

**CV:**  
Name : Yvan Petit, PhD, p. eng.   
  
Professional Address:   
École de technologie supérieure,   
Département de génie mécanique   
1100, Notre-Dame Ouest   
Montréal (Québec) H3C 1K3   
Tel : 514-396-8691   
Courriel : yvan.petit@etsmtl.ca   
  
Laboratoire d’imagerie et d’orthopédie (LIO-HSCM)   
Centre de recherche, Hôpital Sacré-Cœur   
5400, boul Gouin Ouest   
Montréal (Québec) H4J 1C5   
  
Positions :   
2013- to date : Professor, Mechanical Engineering Department, École de technologie supérieure, Montreal QC, Canada.   
2011 : Invited Researcher, Institut Français des Sciences et Technologies des Transports, de l’Aménagement et des Réseaux, Marseille, FRANCE.   
2007 – to date : Associate researcher, CHU Sainte-Justine, Montreal QC, Canada.   
2006-2013: Associate professor, Mechanical Engineering, École de technologie supérieure, Montreal QC, Canada.   
2005 – to date: Researcher, Research Center, Hôpital du Sacré-Coeur de Montréal, Montreal QC, Canada.   
2003-2006 : Assistant Professor, Mechanical Engineering, École de technologie supérieure, Montreal QC, Canada.   
  
Honors :   
2017 Board of directors distinction, Excellence in Research, École de technologie supérieure   
2016 Board of directors distinction, Most promissing technology, Greater Trochanter fixation device   
2013 – Canada Research Chair (Junior), Engineering Innovations in Spinal Trauma   
  
  
Key words :   
Traumatology, Biomechanics, bone and joints, spinal fractures, spinal cord injuries, design, medical devices, protective devices   
  
Selected Publications:   
[1] Brummund M, Brailovski V, Petit Y, Facchinello Y, Mac-Thiong JM. (2017) Impact of anchor type on porcine lumbar biomechanics: Finite element modelling and in-vitro validation. Clin Biomech. 43:86-94.   
[2] Facchinello Y, Wagnac É, Ung B, Petit Y, Pradhan P, Peyrache LM, Mac-Thiong JM (2017) Development of an instrumented spinal cord surrogate using optical fibers : A feasability study. Med Eng Phys. DOI: 10.1016/j.medengphy.2017.06.033, (in-press).   
[3] Soliman HAG, Mac-Thiong JM, Levasseur A, Parent S, Petit Y. (2017) Assessment of Regional Bone Density in Fractured Vertebrae Using Quantitative Computed Tomography. Asian Spine J. 11(1): 57-62.   
[4] Brummund M, Brailovski V, Petit Y, Facchinello Y, Mac-Thiong JM. (2017) Impact of anchor type on porcine lumbar biomechanics: Finite element modelling and in-vitro validation. Clin Biomech. 43:86-94.   
[5] Brailovski V, Facchinello Y, Brummund M, Petit Y, Mac-Thiong JM. (2016) Ti–Ni Rods with Variable Stiffness for Spine Stabilization: Manufacture and Biomechanical Evaluation, Shape Memory and Superelasticity. 2(1), 3-11.   
[6] Fradet L, Arnoux PJ, Callot V, Petit Y. (2016) Geometrical variations in white and gray matter affect the biomechanics of spinal cord injuries than the arachnoid space. Advances in Mechanical Engineering. 8(8):1-8.   
[7] Fradet L, Cliche F, Petit Y, Mac-Thiong JM, Arnoux PJ. (2016) Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression, Proc Inst Mech Eng H. 230(9): 858-66.   
[8] Mac-Thiong JM, Levasseur A, Parent S, Petit Y. (2016) Experimental Model of Proximal Junctional Fracture after Multilevel Posterior Spinal Instrumentation. BioMed Research International. 2016: 8058796.   
[9] Facchinello Y, Brailovski V, Petit Y, Brummund M, Tremblay J, Mac-Thiong JM. (2015) Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech. 30(10):1026-35.   
[10] Mehmanparast H, Petit Y, Mac-Thiong JM. (2015) Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng. 137(12): 121003.   
[11] Tremblay J, Mac-Thiong JM, Brailovski V, Petit Y. (2015) Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H. 229(9):645-51.   
[12] Cloutier LP, Laflamme GY, Menard J, Petit Y. Anterior locking plate reduces trochanteric fracture migrations during hip extension. Clin Biomech (Bristol, Avon). 2014 Sep;29(8):930-5.   
[13] Facchinello Y, Brailovski V, Petit Y, Mac-Thiong JM. Monolithic superelastic rods with variable flexural stiffness for spinal fusion: modeling of the processing-properties relationship. Med Eng Phys. 2014 Nov;36(11):1455-63.   
[14] Fradet L, Petit Y, Wagnac E, Aubin CE, Arnoux PJ. (2014) Biomechanics of thoracolumbar junction vertebral fractures from various kinematic conditions. Med Biol Eng Comput. 52(1):87-94. (CRSNG)   
[15] Fradet L, Arnoux PJ, Ranjeva JP, Petit Y, Callot V. (2013) Morphometrics of the Entire Human Spinal Cord and Spinal Canal Measured from in vivo High-Resolution Anatomical Magnetic Resonance Imaging. Spine (Phila Pa 1976), 30(4):E262-E269.   
[16] Mac-Thiong, JM, Levasseur A, Parent S, Petit Y (2014) The influence of proximal anchors on the risk of proximal junctional fracture in the osteoporotic spine: biomechanical comparison between pedicle screws and transverse process hooks. J Spinal Disord Tech, 27(2): E49-E54.   
[17] Wang Z, Mac-Thiong JM, Parent S, Petit Y, Labelle H (2014) The relevance of sacral and sacro-pelvic morphology in developmental lumbosacral spondylolisthesis: are they equally important? Eur Spine J, 23:157-162.   
[18] Baril Y, Bourgeois Y, Brailovski V, Duke K, Laflamme GY, Petit Y. (2013) Improving greater trochanteric reattachment with a novel cable plate system. Med Eng Phys. 35(3):383-91.   
[19] Boisclair D., Mac-Thiong JM, Parent S, Petit Y (2013) Compressive loading of the spine may affect the spinal canal encroachment of burst fractures, J Spinal Disord Tech, 26(6):342-6 (CRSNG).   
[20] Cloutier LP, Laflamme GY, Petit Y. (2013) Biomechanical analysis of trochanteric fracture fixations using a Y-shaped locking plate. J Orthop Trauma. 27(12):702-7.   
[21] Facchinello Y, Brailovski V, Inaekyan K, Petit Y, Mac-Thiong J-M (2013) Manufacturing of monolithic superelastic rods with variable properties for spinal correction: feasibility study. J. Mech. Behav. Biomed. Mater, 22:1-11.   
[22] Lalonde, N., Y. Petit, C. Aubin, E. Wagnac et P. Arnoux (2013) Method to geometrically personalize a detailed finite element model of the spine. IEEE Trans Biomed Eng, 60(7):2014-21   
[23] Ménard J, Émard M, Canet F, Brailovski V, Petit Y et Laflamme G-Y (2013) Initial Tension Loss in Cerclage Cables, The Journal of Arthroplasty. 28(9):1509-12.   
[24] Baril Y, Bourgeois Y, Brailovski V, Duke K, Laflamme G-Y, Petit Y (2012) Testing system for the comparative evaluation of greater trochanter reattachment devices, Exp Tech, 36(4), p. 74-82.   
[25] Laflamme GY, Leduc S, Petit Y (2012) Reattachment of Complex Femoral Greater Trochanteric Non-Unions with Dual Locking Plates, J Arthroplasty, 27(4):638-42, (CRSNG).   
[26] Levasseur A, Ploeg HL, Petit Y (2012) Comparison of the Influences of Structural Characteristics on Bulk Mechanical Behaviour: Experimental Study using a Bone Surrogate, Med & Biol Eng & Comput, 50(1):61-7, (IRSC, CRSNG).   
[27] Petit Y, Cloutier LP, Duke K, Laflamme GY (2012) The Effects of Femoral Neck Cut, Cable Tension and Muscles Forces on the Greater Trochanter Fixation, Med & Biol Eng & Comput, 50(4):411-7, (CRSNG).   
[28] Sun J, Rojas, A, Bertrand P, Petit Y, Kraenzler R, Arnoux PJ (2012) Investigation of motorcyclist cervical spine trauma using HUMOS model, Traffic Injury Prevention, 13(5), p. 519-28.   
Patents Published or submitted   
[b1] Petit Y, Laflamme Y, Bourgeois Y. (2016) Orthopaedic fixation component and method, Canadian Patent, CA 2643678.   
[b2] Petit Y, Fernandes J, Mérette JS, Dansereau M, Songmene V, Carrier M. (2015) Acetabular Reamer, Canadian Patent, CA 2696990.   
[b3] Petit Y, Laflamme Y, Bourgeois Y. (2014) Orthopaedic fixation component and method, US patent, US 8,894,693.   
[b4] Petit Y, Fernandes J, Mérette JS, Dansereau M, Songmene V, Carrier M. (2013) Acetabular Reamer, US patent, US 8,454,609.   
[b5] Brailovski V, Mac-Thiong JM, Petit Y, Driscoll M, Parent S, Labelle H, Apparatus and method for per-operative modification of medical device stiffness, US Patent application, US2014/0076883 A1, publié: 20 mars 2014.

**45**

**Quality of sleep and psychosocial functioning in pediatric-onset spinal cord injury over time.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Alicia January, PhD***  
Shriners Hospitals for Children-Chicago

**CV:**  
NAME: Alicia M. January   
INSTITUTION: Shriners Hospital for Children-Chicago/ Purdue University Northwest   
POSITION TITLE: Scientific Staff/Assistant Professor   
  
EDUCATION/TRAINING   
John Carroll University B.S. 05/2004 Psychology & Business   
Wayne State University M.A. 04/2008 Clinical Psychology   
Advocate Illinois Masonic Medical Center --- 2011-2012 APA Clinical Internship   
Wayne State University Ph.D. 08/2012 Clinical Psychology   
Shriners Hospitals for Children/Marquette University --- 2012- 2014 Postdoctoral Fellowship in Pediatric/Rehab Psych   
  
  
A. Personal Statement   
I am an assistant professor and clinical psychologist with a focus on multidisciplinary research in the area of assessment and pediatric rehabilitation outcomes. In collaboration with research mentors, I am currently leading a project funded by a fellowship grant from Shriners Hospitals for Children. This study examines the role of sleep and activity behaviors in medical and health outcomes for youth with spinal cord injury (SCI). The results from this project will be used to inform a larger study designed to evaluate how evidence-based motivational strategies can be combined with eHealth technology to improve health behaviors among youth with SCI. Based on this work, I received a NIH Loan Repayment Program award, presented a number of abstracts at national and international conferences, and have published several peer-reviewed manuscripts.   
  
As a clinical psychologist and a member of the medical and scientific staff at Shriners Hospitals for Children, I have been directly involved in evaluating and addressing the psychological concerns of children with orthopedic and neurodevelopmental conditions. In addition to my clinical work, my training and experience in outcomes research make me uniquely qualified to design and evaluate intervention research in pediatric rehabilitation settings and to be part of multi-disciplinary research teams.   
B. Positions and Honors   
Employment   
2002- 2004 Research Assistant, John Carroll University, Cleveland, OH   
2004 Research Assistant, University Memory and Aging Center, Cleveland, OH   
2004- 2006 Americorps Service Member, Teacher, St. Agnes School, Chicago, IL   
2006- 2012 Clinical Psychology Trainee, Wayne State University, Detroit, MI   
2006- 2009 Teaching Fellow-Undergraduate Level, Wayne State University, Detroit, MI   
2008- 2009 Clinical Psychology Extern, Oakland County Circuit Court-Family Division, Pontiac, MI   
2009- 2010 Research Assistant & Psychology Trainee, Dialectical Behavior Therapy Team, Detroit, MI   
2009- 2011 Psychology Clinic Intake Coordinator, Wayne State University, Detroit, MI   
2009- 2011 Teaching Fellow-Graduate Level, Wayne State University, Detroit, MI   
2010- 2011 Adolescent Medicine Clinic-Therapist, Childrens Hospital of Michigan, Detroit, MI   
2011- 2012 APA Clinical Psychology Internship, Advocate Illinois Masonic Medical Center, Chicago, IL   
2012- 2014 Postdoctoral Fellowship in Pediatric Rehabilitation Psychology, Marquette University and   
Shriners Hospitals Chicago, IL   
2015-present Assistant Investigator, Scientific Staff, Shriners Hospitals Chicago, IL   
2016-present Assistant Professor, Purdue University Northwest   
  
Professional Memberships   
2013-2014 Academy of Spinal Cord Injury Professionals   
2014-2015 Society for Research in Child Development   
2013-2016 American Academy for Cerebral Palsy and Developmental Medicine   
2007-present American Psychological Association   
2008-present Association for Psychological Science   
2013-present Society of Pediatric Psychology (APA Division 54)   
2013-present American Spinal Injury Association   
2016-present Society for the Teaching of Psychology   
  
Professional and Editorial Activities   
2007- 2008 Volunteer Research Assistant/Consultant, United Way, Detroit, MI   
2008- 2009 Clinical Class Representative, Wayne State University, Detroit, MI   
2008- 2011 APA Graduate Student Representative, Wayne State University   
2009- 2011 Graduate Student Board Representative, Council of University Directors of Clinical Psychology   
2010- 2011 Coordinator for Interdisciplinary Learning Clinic, Wayne State University   
2014 Ad-Hoc Reviewer, Journal of Psychoeducational Assessment   
2014-2015 Advisory Board, Caring for Caregivers: Supporting Caregivers of Youth with SCI. Craig H. Neilsen Foundation funded intervention study   
2014-present Pediatric Committee, American Spinal Injury Association   
2014-present Ad Hoc Reviewer, Topics in Spinal Cord Injury Rehabilitation   
2016-present Ad Hoc Reviewer, Rehabilitation Psychology   
2016-present Ad Hoc Reviewer, Archives of Physical Medicine and   
2016-present SCI and Transition Review Committee, Model Systems Knowledge Translation Center   
  
Honors and Awards   
2002-2004 John Carroll University Dean’s Lists   
2003-2004 Psi Chi National Honor Society   
2004 Academic Achievement in Psychology Award   
2004 Service to the Psychology Department Award   
2006-2008 Americorps Education Award for National Service to the community   
2007 Student Poster Award, Society for Child and Family Policy and Practice (APA Div. 37)   
2009-2010 Housing Allowance Award   
2009 Omnibus Funding Grant ($4,885) to develop play therapy program   
2010 APAGS Excellence in Campus Leadership Award   
2013 Training In Grantsmanship for Rehabilitation Research (TIGRR)   
2013 Poster Award, Academy of Spinal Cord Injury Professionals (ASCIP)   
2014 Poster Award, American Spinal Injury Association (ASIA)   
2014-2016 National Institutes of Health (NIH) Pediatric Loan Repayment Program   
2016 The Vogel Award for Best Paper in Pediatric SCI and Rehabilitation   
C. Contribution to Science   
My Bibliography URL: https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/52525882   
  
1) Compared to able-bodied peers, individuals with physical disability engage in lower rates of physical activity, consume less healthy diets, and have markedly different patterns of sleep behaviors. In the general population, research has consistently shown that inadequate activity levels, insufficient sleep, and poor diet habits are associated with higher rates of obesity and health issues. Consequently, my work in this area explores whether these same behaviors might add to the already compounded risk among pediatric-onset SCI.   
1. January, A. M, Zebracki, K., Chlan, K.M., & Vogel, L.C. (2017). Poor sleep in adults with pediatric-onset spinal cord injury: Associations with pain, health, and activity. Journal of Spinal Cord Medicine. Advanced online publication.   
  
2. January, A. M., Zebracki, K., Chlan, K.M., & Vogel, L.C. (2015). Sleep, well-being, and psychological symptoms in adults with pediatric-onset spinal cord injury. Rehabilitation Psychology, 60(4), 328-334.   
  
2) Youth with physical disabilities and chronic illnesses can face significant challenges. My research in the area examines the medical and psychological outcomes for children and adults with pediatric-onset SCI. Specifically, my work has focused on how SCI-related medical complications predict variability in psychosocial and mental health outcomes over time. This research has developed into multiple paper presentations at national conferences and several first-author publications in peer-reviewed journals. Additionally, for my work on the paper entitled "Understanding Posttraumatic Growth Following Pediatric-Onset Spinal Cord Injury: The Critical Role of Coping Strategies for Facilitating Positive Psychological Outcomes," I was the recipient of the 2016 Vogel Award for the best paper by a clinician or researcher involved in pediatric SCI rehabilitation.   
1. January, A. M., Zebracki, K., Chlan, K., & Vogel, L. (2015). Understanding post-traumatic growth following pediatric-onset spinal cord injury: The critical role of coping strategies for facilitating resiliency. Developmental Medicine & Child Neurology, 57 (12), 1143-1149.   
  
2. January, A. M., Zebracki, K., Czworniak, A., Chlan, K., & Vogel, L. (2015). Predictive factors of hospitalization in adults with pediatric-onset SCI: A longitudinal analysis. Spinal Cord, 53(4), 314-319.   
  
3. January, A. M., Zebracki, K., Chlan, K., & Vogel, L. (2014). Symptoms of depression over time in adults with pediatric-onset spinal cord injury. Archives of Physical Medicine and Rehabilitation, 95(3), 447-454.   
  
4. January, A. M., Zebracki, K., Chlan, K., & Vogel, L. (2014) Mental health and risk of secondary medical complications in adults with pediatric-onset spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 20(1), 1-12.   
  
3) Effective outcome measurement serves several important and related functions. Standardized assessment is a critical component of gathering information about intellectual, emotional, and behavioral patterns that allude to etiology and reveal factors that relate to health and functioning. It also provides a systematic method of data gathering and analysis in which to evaluate outcomes, inform treatment and prognosis, and aid in making predictions. Thus, my early research focused on utilizing outcome measurement tools and statistical methods to understand risk and protective factors in children’s adjustment   
1. January, A. M., Bartoi, M. G., Kuentzel, J. G., Somers, C. L., & Barnett, D. (2015). Tell Me More About It: A Query into the Relations Between Intelligence Scores and Problem Behaviors Using the WISC-IV. Journal of Child and Family Studies, 24(9), 2544-2554.   
  
2. Bartoi, M. G., Issner, J. B., Hetterscheidt, L., January, A. M., Kuentzel, J.G. & Barnett, D. (2015). Attention Problems and Stability of WISC-IV Scores among Clinically Referred Children. Applied Neuropsychology: Child, 4(3), 133-140.   
  
3. January, A. M., Casey, R. J., & Paulson, D. (2011) A meta-analysis of classroom-wide interventions to build social skills: Do they work? School Psychology Review, 40(2), 242-256.   
  
4) An important element of any profession is to promote the advancement of trainees within the field. Within clinical psychology, I have been involved in several studies investigating the training, knowledge, and perceptions of graduate students. These findings provide insight into the experience of graduate students while also identifying areas where training may be improved in order to better support the education of future professionals and the practice of psychology.   
1. January, A. M., Meyerson, D. A., Reddy, L. F., Docherty, A. R., & Klonoff, E. A. (2014). Impressions of misconduct: Graduate students’ perception of faculty ethical violations in scientist-practitioner Clinical Psychology programs. Training and Education in Professional Psychology, 8(4), 261-268.   
  
2. Veilleux, J. C., January, A. M., VanderVeen, J. W., Reddy, L. F., & Klonoff, E. A. (2012). Perceptions of climate in clinical psychology doctoral programs: Development and initial validation of the Graduate Program Climate Scale. Training and Education in Professional Psychology, 6(4), 211-219   
  
3. Veilleux, J. C., January, A. M., VanderVeen, J. W., Reddy, L. F., & Klonoff, E. A. (2012). Differentiating amongst characteristics associated with problems of professional competence: Perceptions of graduate student peers. Training and Education in Professional Psychology, 6(2), 113-121.   
  
4. Vanderveen, J. W., Reddy, F., Veilleux, J. C., January, A. M., & DiLillo, D. (2012). Clinical PhD graduate student views of their scientist-practitioner training. Journal of Clinical Psychology, 68(9), 1048   
D. Research Support   
Grant: Research Fellowship Award, Shriners Hospitals for Children (#84202)   
Principal Investigator: Alicia M. January   
Primary Mentor: Lawrence C. Vogel   
Project Title: Sleep and Activity Behaviors in Youth with Spinal Cord Injuries   
Role: Principal Investigator/Research Fellow   
Overall Goal: Establish the extent to which sleep and activity behavior patterns are associated with physical and psychosocial functioning in children and adolescents with SCI.   
  
Grant: National Institute on Disability and Rehabilitation Research (NIDRR; #H133P080008)   
Principal Investigator: Gerald Harris, Ph.D.   
Project Title: Advanced Rehabilitation Research Training in Pediatric to Adult Transition   
Role: Research Fellow   
Overall Goal: Provide postdoctoral trainees the directed mentorship, research training, and cross-disciplinary course of study necessary to equip each candidate with a unique set of capabilities to succeed as a rehabilitation researcher.   
  
Grant: Shriners Hospitals for Children Local Chicago Grant   
Principal Investigators: Lawrence Vogel, M.D. and Kathy Zebracki, Ph.D.   
Project Title: Long-Term Outcomes and Life Satisfaction of Pediatric-Onset Spinal Cord Injuries   
Role: Scientific Staff   
Overall Goal: Understanding factors associated with long-term outcomes of patients with spinal cord injuries to identify interventions and rehabilitation strategies that will optimize well-being over time.   
  
Grant: Shriners Hospitals for Children Institutional Grant (#79143)   
Principal Investigators: Erin Kelly, Ph.D. and Lawrence Vogel, M.D.   
Project Title: Relationship between Psychosocial Factors of Youth with SCI and their Caregivers   
Role: Research Consultant   
Overall Goal: Investigate the longitudinal trajectory of psychosocial outcomes and their relationship to physical outcomes among youth with spinal cord injury (SCI), examine relationships between family and caregiver functioning and youth physical and psychosocial outcomes, and explore the relative association between primary and secondary caregivers and child outcomes among youth with SCI.

***Kathy Zebracki, PhD***  
Shriners Hospitals for Children-Chicago

*(no CV uploaded)*

***Kathleen Chlan, BA***  
Shriners Hospitals for Children-Chicago

*(no CV uploaded)*

***Lawrence Vogel, MD***  
Shriners Hospitals for Children-Chicago

*(no CV uploaded)*

**46**

**Heterotopic Ossification after Traumatic Spinal Cord Injury: Use of NSAIDs for Prophylaxis**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***James Crew, MD***  
Santa Clara Valley Medical Center

**CV:**  
BOARD CERTIFICATION   
  
2009 - Present Diplomate, American Board of Physical Medicine and Rehabilitation (ABPMR)   
2011 - Present Neuromuscular Medicine Board Certification   
2009 - Present Spinal Cord Injury Medicine Board Certification   
2008 - 2009 ABPMR Written and Oral Board Examinations   
2002 - 2007 USMLE Steps 1, 2, and 3   
  
  
MEDICAL LICENSURE   
  
2009 - Present Full Medical License - California State Department of Health - MD A109047   
2008 - 2010 Full Medical License - Washington State Department of Health - MD 60001526   
2004 - 2008 Limited Medical License - Washington State Department of Health   
  
  
PUBLICATIONS (last 5 years)   
  
‘Specialized Respiratory Management for Acute Cervical Spinal Cord Injury: A Retrospective Analysis’. Wong SL, Shem K, Crew J. Topics in Spinal Cord Injury Rehabilitation 2012;18(4):283-290.   
  
‘Safety and Feasibility of using the Ekso Bionic Exoskeleton to Aid Ambulation after Spinal Cord Injury’. Kolakowsky-Hayner SA, Crew J, Moran S, Shah A. Journal of Spine 2013; S4: 003.   
  
‘Low Vitamin D Levels in Persons with Spinal Cord Injury and Increased Incidence of Venous Thromboembolic Events during Acute Inpatient Rehabilitation Stay’   
Timmerman M, Crew J, Shem K, Kim M, Kolakowsky S, Wright J. PM&R 2013:5(9):S140.   
  
‘Severe Hair Loss during Inpatient Rehabilitation due to Telogen Effluvium: A Case Report’   
Varghis N, Crew J. PM&R 2014:6(9):S236.   
  
‘An Unusual Case of Tetraplegia from Yoga: A Case Report’   
Williams L, Eichenbaum L, Nahm L, Crew J. PM&R 2014:6(9):S296.   
  
‘The Value of Maintaining Primary Board Certification in Physical Medicine and Rehabilitation’   
Crew J, Gittler M, Kenndey DJ. PM&R 2014;6(7):650-655.   
  
‘Pressure ulcers in people with spinal cord injury in developing nations’   
Zakrasek ED, Creasey G, Crew J. Spinal Cord 2015:53(1):7-13.   
  
‘Subacute Combined Degeneration of the Spinal Cord Secondary to Nitrous Oxide Abuse’   
Martin E, Dorr J, Tryhorn A, Crew J. Am J Phys Rehabil 2016:95(3):a112.   
  
‘Pulmonary outcomes following specialized respiratory management for acute cervical spinal cord injury: a retrospective analysis.’   
Zakrasek EC, Nielson JL, Kosarchuk JJ, Crew JD, Ferguson AR, McKenna SL. Spinal Cord 2017; 1-7.   
  
  
INVITED PRESENTATIONS/LECTURES (last 5 years)   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at California Society of Respiratory Care, Lake Tahoe, NV 03/2012   
  
‘Vitamin D: Effect on Health and Relevance in PM&R’   
Lecture at Stanford Grand Rounds, Palo Alto, CA 07/2012   
  
‘Description of a 6 Week Pilot Study of the EksoTM Wearable Exoskeleton after SCI’   
Presentation at PVA Annual Conference, Las Vegas, NV 08/2012   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at Totally Trauma Conference, Monterey, CA 10/2012   
  
‘Prognosis and Quality of Life after SCI’   
Presentation at UCSF Neuroscience Conference, San Francisco, CA 12/2013   
  
‘Spinal Cord Injury Rehabilitation and Research Trends’   
Presentation at Stanford 24th Annual Trauma Symposium 08/2014   
  
‘Spinal Cord Injury Acute Medical Management’   
Trauma Grand Rounds at Fresno Community Regional Medical Center 02/2014   
  
‘Respiratory Management in Spinal Cord Injury’   
Province Rounds at GF Strong Rehabilitation Centre in Vancouver, BC 05/2015   
  
  
WORK EXPERIENCE AND APPOINTMENTS   
  
11/2014 – Present   
Santa Clara Valley Medical Center   
Chair, Physical Medicine and Rehabilitation   
  
8/2011 – Present Santa Clara Valley Medical Center   
Chief of Spinal Cord Injury, Physical Medicine and Rehabilitation   
  
3/2016 – Present Stanford School of Medicine   
Clinical Associate Professor (Affiliated), Department of Orthopaedic Surgery   
  
8/2011 – 7/2014 Stanford Physical Medicine and Rehabilitation Residency Site Director   
Santa Clara Valley Medical Center Site Director for Stanford PM&R Residency   
  
1/2010 – 3/2016 Stanford School of Medicine   
Clinical Instructor (Affiliated), Department of Orthopaedic Surgery   
  
8/2009 – 8/2011 Santa Clara Valley Medical Center   
Associate Chief, Physical Medicine and Rehabilitation   
  
  
RESEARCH EXPERIENCE   
  
2015 - Present Co-PI, SCVMC/Stanford Site, Asterias Stem Cell Clinical Trial in Acute SCI   
2014 - Present Chair, Stanford PM&R Research and Quality Committee   
2012 - 2015 PI, SCVMC Stie, Asubio SUN13837 Clinical Trial in Acute Spinal Cord Injury (SCI)   
2011 - 2013 PI, Treatment of Hypovitaminosis D in SCI   
2010 - 2011 Co-PI, Preliminary Evaluation of Exoskeleton Use after SCI   
2009 - 2011 Co-PI, SCVMC/Stanford Site, Geron Stem Cell Clinical Trial in Acute SCI   
2010 - 2011 PI, Evaluation of Hypovitaminosis D in SCI   
2007 - 2009 Investigator, Mechanical Insufflation Exsufflation use in Tetraplegia   
  
  
AWARDS   
  
2017 Santa Clara County 2016 Employee of the Year, received 2/2017   
2016 Santa Clara County Employee of the Month, February 2016   
2014 Santa Clara Valley Medical Rehabilitation Center Leadership Award   
2013 Stanford University Physical Medicine and Rehabilitation Humanitarian Award   
2011 Sam Schmidt Paralysis Foundation/ASIA Young Investigator Research Grant Award   
  
NATIONAL ACADEMY INVOLVEMENT   
  
2017 - Present Vice Chair of Education, Central Nervous System Council, AAPMR   
2017 - Present Health Advocacy Committee Member, ASIA   
2014 - Present Reviewer, PM&R Journal   
2014 - Present Reviewer, Spinal Cord Journal   
2015 Q Bank question writer, Neuromuscular Medicine, AAPMR

***Benjamin Pence, DO***  
Santa Clara Valley Medical Center

*(no CV uploaded)*

***Stephen McKenna, MD***  
Santa Clara Valley Medical Center

*(no CV uploaded)*

***Shara Yurkiewicz, MD***  
Stanford University

*(no CV uploaded)*

***Elissa Zakrasek, MD***  
Va Palo Alto Health Care System

*(no CV uploaded)*

**47**

**The impact of the parcellation strategy on the topological organization of brain networks in spinal cord injury.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Mayank Kaushal, MBBS, MBA***  
Medical College of Wisconsin

**CV:**  
Mayank Kaushal, MBBS, MBA   
  
A. Positions and Honors   
  
Positions   
2017 – present Postdoctoral Fellow   
Department of Neurosurgery, Medical College of Wisconsin, Milwaukee, WI   
2013 – 2017 Research Associate   
Department of Biomedical Engineering, Marquette University, Milwaukee, WI   
  
Honors   
2016 Best Basic Science Poster, Cervical Spine Research Society   
2016 MCWAH Research Award   
  
B. Journal Affiliations   
  
2017 – present Reviewer – The Spine Journal   
Reviewer – World Neurosurgery   
Reviewer – European Spine Journal   
Reviewer – British Journal of Neurosurgery   
Reviewer – Asian Journal of Neurosurgery   
Reviewer – Journal of Neurosciences in Rural Practice   
  
C. Publications   
  
1. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Ward BD, Kalinosky B, Budde MD, Schmit BD, Li S, Muqeet V, Kurpad SN. Large-scale network analysis of whole-brain resting-state functional connectivity in spinal cord injury: A comparative study. Brain Connectivity. 2017. Aug; ahead of print. doi:10.1089/brain.2016.0468. PMID: 28657334.   
2. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Ward BD, Kalinosky B, Budde MD, Schmit BD, Li S, Muqeet V, Kurpad SN. Evaluation of whole-brain resting-state functional connectivity in spinal cord injury – a large-scale network analysis using network based statistic. Journal of Neurotrauma. 2017, Mar; 34(6): 1278-1282. doi:10.1089/neu.2016.4649. PMID: 27937140.   
3. Leschke JM, Lozen A, Kaushal M, Oni-Orisan A, Noufal M, Zaidat O, Pollock GA, Mueller WM. Hemorrhagic complications associated with ventriculostomy in patients undergoing endovascular treatment for intracranial aneurysms: a single-center experience. Neurocritical Care. 2017, Aug; 27(1): 11-16. doi: 10.1007/s12028-016-0350-y. PMID: 28000128.   
4. Oni-Orisan A, Kaushal M\*, Li W, Leschke J, Ward BD, Vedantam A, Kalinosky B, Budde MD, Schmit BD, Li S, Muqeet V, Kurpad SN. Alterations in Cortical Sensorimotor Connectivity following Complete Cervical Spinal Cord Injury: A Prospective Resting-State fMRI Study. PLoS One. 2016, Mar; 11(3): e0150351. doi: 10.1371/journal.pone.0150351. (\*co-first author). PMID: 26954693.   
5. Rao A, Soliman H, Kaushal M\*, Motovylak O, Vedantam A, Wollenweber L, Budde MD, Schmit B, Wang M, Kurpad S. Diffusion Tensor Imaging in a Large Longitudinal Series of Patients With Cervical Spondylotic Myelopathy Correlated with Long-term Functional Outcome. Neurosurgery. April 2016. (\*contributed equally). Publication Status: provisionally accepted.   
  
D. Book Chapter   
  
1. Vedantam A, Kaushal M, Kurpad, SN. Imaging the Spine After Trauma. Steinmetz MP & Benzel EC (Eds.). Benzel's Spine Surgery: Techniques, Complication Avoidance and Management. Elsevier. Philadelphia. 2016.   
  
E. Conference Abstracts   
  
1. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Kalinosky B, Budde MD, Schmit BD, Muqeet V, Kurpad SN. Modular Organization of Whole-Brain Resting-State Functional Connectivity in Spinal Cord Injury: A Comparative Study. 44th Annual Meeting of the Cervical Spine Research Society (CSRS), Toronto, Ontario, Canada, December 2016.   
2. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Kalinosky B, Budde M, Schmit B, Muqeet V, Kurpad S. Evaluation of network attributes of whole-brain resting-sate functional connectivity using large-scale network analysis. 16th European Congress of Neurosurgery (EANS), Athens, Greece, September 2016.   
3. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Kalinosky B, Ward B. Budde MD, Schmit BD, Muqeet V, Kurpad SN. Large scale Network Analysis of Whole-brain Resting-state Functional Connectivity in Spinal Cord Injury: A Comparative Study. Congress of Neurological Surgeons (CNS) Annual Meeting, San Diego, CA, USA, September 2016.   
4. Rao A, Soliman HM, Shabani S, Kaushal M, Motovylyak O, Vedantam A, Wollenweber L, Budde M, Schmit B, Wang MC, Kurpad SN. Diffusion Tensor Imaging in a Large Series of Cervical Spondylotic Myelopathy Patients is a Biomarker for Long Term Clinical Outcomes. Congress of Neurological Surgeons (CNS) Annual Meeting, San Diego, CA, USA, September 2016.   
5. Mumert M, Kaushal M, Shabani S, Rao A, Kurpad SN, Wollenweber L, Soliman HM, Ulmer JL, Wang M. Diffusion Tensor Imaging Reveals Abnormalities Throughout the Neuroaxis in Patients with Cervical Spondylotic Myelopathy. Congress of Neurological Surgeons (CNS) Annual Meeting, San Diego, CA, USA, September 2016.   
6. Oni-Orisan A, Kaushal M, Li W, Ward D, Vedantam A, Kalinosky B, Seslija D, Budde M, Schmit B, Li S, Muqeet V, Kurpad S. Alterations in Cortical Sensorimotor Connectivity following Complete Cervical Spinal Cord Injury: Evidence from Resting-State fMRI. International Society for Magnetic Resonance in Medicine (ISMRM) 23rd Annual Meeting and Exhibition, Toronto, Ontario, Canada, June 2015.   
7. Oni-Orisan A, Kaushal M, Li W, Ward BD, Chen G, Kalinosky B, Seslija D, Budde M, Li S, Schmit B, Muqeet V, Kurpad S. Alterations in Cortical Sensorimotor Connectivity following Complete Cervical Spinal Cord Injury: Evidence from Resting-State fMRI. 83rd American Association of Neurological Surgeons (AANS) Annual Scientific Meeting, Washington D.C., USA, May 2016.   
8. Vedantam A, Kaushal M, Jirjis MB, Schmit BD, Ulmer JL, Wang MC, Kurpad SN. Development of High Cervical DTI as an Imaging Marker for Distal Human Spinal Cord Pathology. American Society of Neuroradiology (ASNR) 52nd Annual Meeting, Montreal, Quebec, Canada, May 2014.   
  
F. Oral Presentations   
  
1. Kaushal M, Oni-Orisan A, Chen G, Li W, Leschke J, Kalinosky B, Budde MD, Schmit BD, Muqeet V, Kurpad SN. Modular Organization of Whole-Brain Resting-State Functional Connectivity in Spinal Cord Injury: A Comparative Study. 44th Annual Meeting of the Cervical Spine Research Society (CSRS), Toronto, Ontario, Canada, December 2016.   
2. Oni-Orisan A, Kaushal M, Li W, Leschke JB, Ward D, Vedantam A, Kalinosky B, Budde MD, Schmit BD, Li S, Muqeet V, Kurpad SN. Alterations in Cortical Sensorimotor Connectivity Following Complete Cervical Spinal Cord Injury: A Prospective Resting state fMRI Study. 32nd Annual Meeting of the Section on Disorders of the Spine and Peripheral Nerves, Orlando, FL, USA, March   
2016.

***Akin Oni-Orisan, MD***  
Ut Health Science Center at Houston

*(no CV uploaded)*

***Gang Chen, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Wenjun Li Kaushal, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Jack Leschke, MD***  
University of Minnesota

*(no CV uploaded)*

***Matthew Budde, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Brian Schmit,***   
Marquette University

*(no CV uploaded)*

***Shi-Jiang Li, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Vaishnavi Muqeet, MD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Shekar Kurpad, MD, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

**48**

**Case Study: A Patient with Intellectual Deficits due to Aarskog-Scott Syndrome demonstrates ability to make neurological and functional gains after suffering a traumatic Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Roberto Rapalo, PT,DPT***  
Mount Sinai Rehab

**CV:**  
Education   
➢ 2012 New York Medical College, Valhalla, NY   
o Doctorate of Physical Therapy   
• Doctoral Project: “Moving Towards a Better Glycemic Control: A Guide to Exercise for Hispanics Living with Type 2 Diabetes (Part II)”   
➢ 2009 State University of New York, University at Buffalo, Buffalo NY   
o Bachelors of Science in Exercise Science   
Clinical Experiences   
➢ Neurosurgery, NSICU, Respiratory ICU, Mount Sinai Hospital NY, NY 01/12-03/12   
o In-Service: Case Study on Cerebellar Hemorrhage due to an AVM   
o Lit Review: Early Rehabilitation after Surgery Improves Functional Outcome in Patients with Brain Tumors   
➢ Cardiopulmonary Rehab at Pulmonary Wellness Rehabilitation Center, NY, NY 09/11-11/11   
o In-Service: Pulmonary Medications and Effects on Rehab   
➢ Outpatient Orthopedics Premier Physical Therapy , Hartsdale, NY 02/11-04/11   
o In-Service: The Benefit of Eccentric Exercises in the Orthopedic Population   
➢ Outpatient Wound Care at Renown Hospital Reno, NV 01/11-02/11   
o In-Service: An Evidence Based Comparison of New Innovative Wound Debridement Modalities: Arobella Vs. Mist Therapy   
➢ Outpatient Orthopedics at St. Barnabas Hospital Bronx, NY 05/10-06/11   
o In Service: Treating Patients with Urinary Incontinence: Benefits of Physical Therapy   
Work Experience   
➢ Mount Sinai Hospital   
o Outpatient Physical Medicine & Rehab 1/15-present   
o Spine team- Head, neck, back floor. NSICU, MiCU, SICU 7/13- 12/14   
o In-service- Creating a culture of mobility in the acute care setting   
o In service- Introduction to stem cell and research   
o In service- Lab value in the acute care population   
o In service- ICU mobility protocol   
o In service- Saving your back: teaching Rn’s proper mechanics in mobilizing patients.   
➢ Baylor University Medical Center Dallas, TX 11/12-6/13   
o Transplant Team acute care and Medical Surgery ICU   
➢ Symmetry Physical Therapy and Athletic Enhancement Pelham, NY 2008-11/12   
o Physical Therapist, PT aide, Volunteer   
Organizations: American Physical Therapy Association   
Certificates   
• American Heart Association CPR & AED 05/2011   
• Kinesio taping KT1/KT2 completed 08/2014   
• ASIA InSTep certification 11/2014   
Research   
Stem Cells Study   
Leadership Work:   
• APTA Conference Student Usher Tampa, Florida 06/12   
• Latin American Student Association President University at Buffalo 09/08-05/09   
Languages: Fluent in English and Spanish

***Jessica Cantwell, OTR/L***  
Mount Sinai Rehab

**CV:**  
JESSICA CANTWELL, OTR/L   
752 West End Ave, Apt 23F, New York, New York 10025 • (217) 415-3742 •   
PROFESSIONAL EXPERIENCE   
Mount Sinai Medical Center, New York, NY Senior Occupational Therapist   
Jessica.M.Cantwell@gmail.com   
February 2014- current   
● Provide daily treatment and track progression of plan of care for inpatient rehabilitation clients at Mount Sinai Medical Center’s inpatient rehabilitation   
● Administering and interpreting evaluations for functional, cognitive, and physical impairments resulting from various conditions and disabilities.   
● Planning and implementing client centered interventions for patients focused on maximizing functional independence through remediation of deficits and teaching of compensatory strategies.   
● Currently serve as senior staff member on Spinal Cord Injury Unit inpatient rehabilitation   
● Served in role as float therapist providing flexible coverage as needed across all inpatient rehabilitation   
units   
● Participate in weekly team conferences with physicians, nursing, social work, and psychologists regarding   
patient status and progress   
● Conducting training sessions for patients and families for discharge preparation   
● Ordering appropriate durable medical equipment for patients, including custom wheelchairs and seating   
systems   
● Working with durable medical equipment vendors to provide patients with appropriate custom   
wheelchairs and cushions   
● Writing letters of justification for durable medical equipment   
● Supervising Level I and II fieldwork students   
● Mentoring and training new occupational therapy staff   
● Managed weekly and daily therapy minutes on the unit to increase the unit’s compliance with the 900-   
minute rule   
● Running group occupational therapy sessions focused on improving upper extremity function   
● Trackingcompletionofpatients’multi-disciplinarybinderstoincreaseperformanceimprovementgoals   
for patient satisfaction   
● Organizing Spinal Cord Injury Education Series   
● Lecturing patients on the topics of “Skin Management” & “Sexuality” in conjunction with the SCI   
Patient Education Series.   
● Leading inservice and one-on-one education training for therapy and nursing staff on Functional   
Independence Measure (FIM) scoring in compliance with Uniform Data System for Medical   
Rehabilitation (UDSMR)   
● Leading a hands-on in-service training for residents, fellows, and physicians on safe transfer training and   
body mechanics   
The Execu-Search Group, New York, NY October 2013 – February 2014 Occupational Therapist   
● Provide skilled daily treatment and track progression of plan of care for skilled nursing clients at the Riverside Rehabilitation and Nursing Center   
Summa Rehabilitation Hospital, Akron, OH December 2012 – August 2013 Occupational Therapist, PRN   
● Performed client-centered assessment, treatment, and discharge-planning to effectively rehabilitate physical and cognitive function for inpatient rehabilitation clientele   
● Evaluated appropriate durable medical equipment needs on individual client basis and completed appropriate family training for safe return to community living   
● Collaborated with occupational therapy staff to develop comprehensive cognitive treatments and functional testing to track therapeutic outcomes   
Bath Manor Special Care Center, Akron, OH October 2012 – June 2013 Occupational Therapist   
● Created and implemented comprehensive treatment plans for skilled nursing clients   
● Supervised certified occupational therapy assistants in their daily treatment and progression of plan of care   
● Completed home safety evaluations and family training to ensure client’s safe and appropriate discharge to home ● Aided development of model to increase occupational therapy staff’s comprehensive therapeutic treatments and   
improve skilled clientele’s functional outcomes   
The Rehabilitation Institute of St. Louis, St. Louis, MO January 2012 – August 2012 Occupational Therapist   
● Worked closely with interdisciplinary medical team on Stroke and Brain Injury unit to develop comprehensive treatment plans for various neurological conditions and facilitate clients’ successful return to prior level of function.   
● Assessed, treated, and prepared discharge plans for client with neurorehabilitation focus   
● Represented occupational therapy on the Stroke Team, a multi-disciplinary board aimed at improving therapeutic   
outcomes through comprehensive treatment programs for stroke survivors   
● Developed protocol for client referral and vocational rehabilitation aimed at improving return-to-work outcomes   
for neurocognitive rehabilitation clientele   
EDUCATION   
Washington University in St. Louis School of Medicine, St. Louis, MO   
Master of Science in Occupational Therapy   
University of Illinois, Champaign-Urbana, IL   
Bachelor of Science in Kinesiology; Minor in Gerontology   
CONTINUING EDUCATION   
December 2011 May 2008   
● The Shoulder Girdle to the Hand, April 2012   
● Cognitive Issues Throughout the Stages of Brain Injury, April 2012   
● HemiMove:FundamentalsintheManagementofAdultswithHemiplegia,July2012   
● SensoryDysfunctionFollowingStroke,August2012   
● ACP, Physical Modalities Basics, February 2013   
● ACP, Physical Modalities for Pain Management, November 2013   
● Occupational and Physical Therapy Management of SCI: A Functional Treatment Approach, June 2014   
● Kinesio Taping Fundamentals and Advanced Concepts (KT1 & KT2), July 2014   
● Spinal Mobility Level I Workshop, March 2015   
● SexualityafterInjury,June2015   
● Kinesio Taping Clinical Concepts and Advanced Taping Techniques (KT3), June 2015   
● Interdisciplinary Spinal Cord Injury Course at Rehabilitation Institute of Chicago, June 2016   
PROFESSIONAL CERTIFICATIONS   
● Occupational Therapist- Registered, National Board for Certification in Occupational Therapy ● Licensed Occupational Therapist   
o State of New York   
o State of Missouri   
● Certified Brain Injury Specialist   
● Certified Kinesiotaping Practitioner, CKTP   
● CPR/AED & First Aid, Professional rescuer   
● Nonviolent Crisis Intervention, Crisis Prevention Institute   
Cantwell 2   
CLINICAL EDUCATION EXPERIENCE   
The Rehabilitation Institute of St. Louis, St. Louis, MO September – December 2011   
● Worked in an inpatient rehabilitation setting, under occupational therapist supervision, on a Stroke and Brain Injury unit   
● Developed creative, client-centered treatment plans to enhance physical and cognitive function   
● Educated and prepared families and clients for safe return to home or next level of care   
Rush University Medical Hospital, Chicago, IL June – September 2011   
● Worked in an acute inpatient setting, under occupational therapist supervision, on the Neurosurgical ICU, Stroke,   
Neurology, Medical ICU, and Orthopedic floors   
● Crafted and implemented a home exercise program, based on the Motor Assessment Scale, for individuals   
recovering from a stroke   
● Skillfully implemented patient assessments and performed a wide variety of interventions, in a time-sensitive   
environment   
● Developed confidence in communicating professionally with members of multi-disciplinary medical teams,   
patients, and their family members   
RESEARCH EXPERIENCE   
Productive Aging Laboratory, St. Louis, MO June 2010 – May 2011 Washington University in St. Louis Graduate Research Assistant   
● Worked under the guidance of Dr. Mary Hildebrand, OTD, OTR/L, examining the effects of the St. Louis Naturally Occurring Retirement Community (NORC) on the physical activity level and quality of life of older adults   
● Assisted on research project examining current therapy practice at skilled nursing facilities versus an enhanced rehabilitation model   
Exercise Psychology Laboratory, Champaign, IL August 2006 – May 2007 University of Illinois Undergraduate Research Assistant   
● Worked under Dr. Edward McAuley, Ph.D. on the Healthy, Active Lifestyle Trial (HALT), a five-year study funded by the National Institute on Aging. HALT was a large-scale, randomized controlled exercise trial examining the effects of fitness changes on brain structure and cognition, physical, and psychological function.   
● Trained to run: V02 Max test, Rockport one-mile test, and physical function tests   
● Guided elderly research participants on a daily basis   
OTHER PROFESSIONAL EXPERIENCE   
Special Needs Tutor, St. Louis, MO September 2009 – May 2011   
● Provided individualized assistance to high-school aged students with Autism Spectrum Disorder on their nightly homework and long-term projects   
● Encouraged development of reading comprehension and appropriate social skills   
● Familiar with IEP goals and planning meetings for children with special needs   
Hanger Prosthetics and Orthotics, Springfield, IL June 2008 – August 2009 Office Administrator   
● Provided high level of customer service to patients, fellow employees and referral sources   
● Coordinated communications with insurance companies to ensure accurate billing practices, enhance   
reimbursement opportunities, and achieve cash collection targets   
● Applied payments and adjustments to patient accounts, processed deposits, and maintained accurate records of all   
payments received   
● Coordinated scheduling and ensured proper coverage of patient appointments and out-of-office calls   
SERVICE   
Spinal Cord Injury Life Challenge Program   
● Participated in assisting persons with spinal cord injury participating in swimming activities   
Canine Good Citizen/ Therapy Dog Training   
● Trained as a handler and owner of therapy dog to provide comfort and companionship with patients in hospitals,   
nursing homes, and other institutions

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**Wide-pulse neuromuscular electrical stimulation compared to traditional NMES parameters for changes in muscle volume and fatigue.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Gail Forrest, Ph.D***  
Kessler Foundation

**CV:**  
Bachelor of Applied Science RMIT, Melb., Australia   
B. App. Sc 12/1979   
Temple University, Philadelphia   
Ph.D. 1/2001   
Post Doctoral Fellow, Kessler Foundation 1/2001-12/2002   
  
A. Personal Statement   
I am currently an Associate Professor of Physical Medicine & Rehabilitation Rutgers New Jersey Medical School, Rutgers, NJ, an Assistant Director of the Human Performance and Engineering Laboratory, an Affiliated Faculty Department of Biomedical Engineering, New Jersey Institute of Technology, Newark, NJ, Member of the Graduate Faculty in Biomedical Science, University of Medicine and Dentistry of New Jersey, Newark, NJ. I am currently funded by multiple grants from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), Christopher and Dana Reeve Foundation, Department of Defense and New Jersey Commission on Spinal Cord Research. My research grant funding over the last ten years has been directed towards understanding neurological and musculoskeletal recovery for individuals with a spinal cord injury (SCI) following a specific intervention. Several areas of my previous research have focused towards recovery of gait function and gait kinematics after treadmill walking or standing interventions my present research and grant funding which is concentrated on powered exoskeletons and understanding neurological and musculoskeletal recovery for individuals following spinal cord injury (SCI)   
B. Positions and Honors   
  
Prior to 1989 Mathematics and Computer Science Senior Level Teacher, Australia.   
1989-1992 Corporate Consultant to Four Season Hotels (Daikyo Corporation), Australia and Japan.   
1991-1992 Victoria University, Melbourne, Australia, Grad Dip. Biomechanics   
1995-1997 Teaching Assistant - Human Anatomyand Biomechanics, Temple University.   
1997-1998 Biomechanics Lecturer and Coordinator, Temple University.   
1998-1999 Teaching Assistant – Physiology, Biomechanics, and Anatomy, Temple University   
1999-2000 Research Assistant – “Dynamic Control of Head Stability in Older Adults” Grant (NIA # RO3), Physical Therapy Dept, Temple University.   
2000-2002 Post Doctoral Fellow, Kessler Medical Rehabilitation Research and Education Corporation,West Orange, NJ.   
2003-2007 Research Scientist II , Kessler Medical Rehabilitation Research and Education Corporation, West Orange, NJ.   
2007- 2012 Interim Director, HPMAL , Kessler Foundation Research Center , West Orange, NJ.   
2007- Date Kessler site Director of the NeuroRecovery Network.   
2012- 2014 Assistant. Director Human Performance Laboratory, Kessler Foundation.   
2014- Current Associate Director Human Performance and Engineering, Kessler Foundation.   
University Appointments   
5/2000-9/2000 Adjunct Professor Biomechanics, Physiology, – Temple University, University of Pennsivalia   
1/2001-6/2005 Instructor, University of Medicine and Dentistry of New Jersey / New Jersey Medical School   
7/5/05-present Assistant Professor University of Medicine and Dentistry of New Jersey/New Jersey Medical Sc.   
2011-Date Affiliated Faculty Department of Biomedical Engineering, New Jersey Institute of Technology, Newark, NJ   
2012- Date Member of the Graduate Faculty in Biomedical Science, University of Medicine and Dentistry of New Jersey, Newark, NJ.   
2013 –Date Associate Professor Rutgers New Jersey Medical School, Rutgers, the State University of New Jersey   
Other Professional Experience   
1999 - 2000 Research Assistant Dynamic Control of Head Stability, Agency NIH/NIA (RO3); (Ronita Cromwell, Ph.D., Principal Investigator)   
2001 - present Institutional Review Board Member Kessler Foundation   
2004 - present Reviewer for Journal of Neuroengineering and Rehabilitation   
2005 - present Reviewer of Journal of Rehabilitation Research and Development   
2005 - present Reviewer of Journal of Spinal Cord Medicine   
2005 - present Compliance Committee member (subcommittee of IRB)   
2005 - present Committee member for ACRM International task force   
2005 - present Reviewer, RESNA   
2009 -present Reviewer NIH (2014/10 ZRG1 BBBP-Y (05), Motor Function, Speech and Rehabilitation (MFSR) Study Section).   
2011-present Craig H Neilson Foundation   
2013-present Reviewer for Gait and Posture.   
C. Contribution to Science   
1. My dissertation concentrated on understanding the dynamics of walking for older and younger adults using kinematics and muscle activation and intersegmental dynamics of the lower limbs;   
i. Cromwell R.L., Newton, R. A., Forrest, G.F. Influence of vision on head stabilization strategies on older adults during walking. Journal of Gerontology: Medical Sciences, , 57(7),: M442-8, 2002.   
ii. Cromwell, R.L., Newton, R.A., Forrest, G. Head stability in older adults during walking with and without visual input. Journal of Vestibular Research, 11(2): 105-14, 2001.   
iii. Cromwell, RL, Newton, RA, Forrest, G. Age related changes in head stabilization during walking under altered visual conditions. In Duysens, J, Smits-Engelsman, BCM, Kingma, H, (eds) Control of Posture and Gait. Symposium of the International Society for Postural &Gait Research, Maastricht, The Netherlands, 86-90, 2001.   
iv. Straub, S.J., Tierney, R.T., Hamstra, K., Forrest, G. F., Swanik, C.B. (2001). Accuracy and Reliability of the Peak Motus Motion Analysis System; Journal of Athletic Training 36, 2.   
  
2. My postdoctoral fellowship work contributed to the scientific understanding of neural plasticity in the lower limbs after intense locomotor step training intervention using a treadmill with body weight support for both motor complete and incomplete SCI. For all of this dissertation work we utilized a full body kinematic marker set and lower extremity muscle activation to study the effect of the intervention on treadmill gait and as well we studied postural control using kinematics and muscle firing patterns of the lower limb.   
i. Forrest, GF, Sisto, SA, Kirshblum, S., Asselin, P, Mores, J, Bond, Q, Lafountain, M, Harkema, S. Locomotor training with incremental changes in velocity: Muscle and metabolic responses, Topics in Spinal Cord 29(4), 464-466, 2008   
ii. Forrest, GF, Sisto, SA, Barbeau, H, Kirshblum, S, Wilen, J., Bond, Q., Bentson, S., Asselin, P, , Harkema, S. Neuromotor and Musculoskeletal Responses to Locomotor Training for Individuals with Chronic Motor Complete, ASIA-B Spinal Cord Injury. J Spinal Cord Med 2008; 31(5):509-21.   
iii. Sliwinski, M.M., Sisto, S.A., Batavia, M., Chen, B. and Forrest, G. . Dynamic stability during walking following total unilateral hip arthroplasty. Gait & Posture 19(2):141-147. 2007.   
  
3. We evaluated the intense locomotor training intervention in an outpatient clinical program for over 250 patients across seven treatment centers in the USA.   
i. Forrest GF, Hutchinson K, Lorenz DJ, Buehner JJ, Vanhiel LR, Sisto SA, Basso DM. Are the 10 Meter and 6 Minute Walk Tests Redundant in Patients with Spinal Cord Injury?. PLoS One. 2014 May 1;9(5)/2014   
ii. Forrest, GF, Hudson, L, Basso, M, Behman, A, Harkema, SJ, Ambulation and Balance Outcomes Measure Different Aspects of Recovery in Individuals With Chronic, Incomplete Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation. 2012 Sep;93(9):1553-64   
iii. Morrison, SA, Forrest, GF, VanHiel LR, DeLorenzo,D. NeuroRecovery Network Provides Standardization of Locomotor Training for Persons With Incomplete Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation. 2012 Sep;93(9):1574-7.   
iv. Buehner J, Forrest GF, Schmidt, M, Tansey K, Basso M. Relationship between ASIA Exam and Functional Outcomes in the NeuroRecovery Network Locomotor Training Program. Archives of Physical Medicine and Rehabilitation. 2012 Sep; 93(9):1530-40.   
v. Morrison S, Eskay, CP, Forrest GF, Basso EM. Longitudinal recovery and reduced costs after 120 sessions of locomotor training for motor incomplete spinal cord injury   
Submitted Archives of Physical Medicine and Rehabilitation.   
4. Our more recent research has been concentrated on multi muscle stimulation combined with dynamic stand training using bodyweight support and we studied the neuroplasticity effect of the intervention on kinematics and muscle activation during stepping on the treadmill and overground gait.   
i. Pilkar RB, A, Yarossi M, Forrest G Application of Empirical Mode Decomposition Combined with Notch Filtering for Interpretation of Surface Electromyograms during Functional Electrical Stimulation Transactions on Neural Systems & Rehabilitation Engineering Accepted 2016   
ii. Pilkar R, Ramanujam A, Garbarini E, Forrest GF, “Validation of Empirical Mode Decomposition Combined with Notch Filtering to Extract Electrical Stimulation Artifact from Surface Electromyograms during Functional Electrical Stimulation”, Proceedings of IEEE Eng Med Bio Soc 2016.   
iii. Canton S, Momeni K, Ramanujam A, Garbarini, A, Forrest GF. Neuromotor Response of the Leg Muscles Following a Supine, Stand Retraining With/without Neuromuscular Electrical Stimulation Training Intervention for Individuals with SCI: A Case Series. Proceedings of IEEE Eng Med Bio Soc 2016   
iv. Momeni K, Canton S, Ramanujam A, Garbarini, A, Forrest GF. Effects of Lower Limb Electrical Stimulation on Trunk Stability in Persons with SCI During Walking. Proceedings of IEEE Eng Med Bio Soc 2016.   
v. Pilkar RB, Yarossi M, Forrest G. Empirical mode decomposition as a tool to remove the function electrical stimulation artifact from surface electromyograms: preliminary investigation. IEEE Engineering in Medicine and Biology Conference Proceedings 2012; 1847-50. doi: 10.1109/EMBC.2012.6346311.   
5. More recently we have focused on Wearable Robotics research and the effect on gait. We are currently investigating multiple wearable robotic exoskeletons and the training effect on neural and gait recovery both within and outside the exoskeleton as well as investigating the effect on muscle and bone. Our contributions to science encompass the training effect of these devices as a suitable device to be used in the community or as a device that can effectively be used in the clinic or understanding the the health benefits associated with using the powered robots.   
i. Ramanujam A, Cirnigliaro CM, Garbarini E, Asselin P, Pilkar R, Forrest GF. Neuromechanical adaptations during a robotic powered exoskeleton assisted walking session. J Spinal Cord Med. 2017 Apr 20:1-11. doi: 10.1080/10790268.2017.1314900.   
ii. Terfiller C, Jayaraman A, Hartigan C, Forrest GF. Powered Exoskeletons: A Multi-Center Feasibility Study. Accepted Spinal Cord 2017.   
iii. Ramanujam A, Spungen A, Asselin P,Garbarini E, Augustine J Canton S, Barrance P, Forrest GF. .Training Response to Longitudinal Powered Exoskeleton Training for SCI The International Symposium on Wearable Robotics 18-21 October, 2016. La Granja, Segovia, Spain Published http://www.springer.com/us/   
6. With much of our previous and ongoing research we are investigating the effects of mechanical, pharmacological and multi muscle electrical stimulation effect on musculoskeletal system and overall health.   
I. Forrest, GF, Harkema SJ, Angeli, CA, Kirshblum, S., Cirnigliaro, CM, Faghri, Garabrini, E., Bauman, W. Preliminary Results on the Differential Effect on Bone of Applying Multi-Muscle Electrical Stimulation to the Leg while Supine or Standing in Patients with SCI: The Importance of Combining a Mechanical Intervention with Gravitational Loading. Journal of Spinal Cord Medicine (Submitted, 2017).   
II. Cirnigliaro CM, Myslinski MJ, La Fountaine MF, Kirshblum SC, Forrest GF, Bauman WA. Bone loss at the distal femur and proximal tibia in persons with spinal cord injury: imaging approaches, risk of fracture, and potential treatment options. Osteoporos Int. 2017 Mar;28(3):747-765. doi: 10.1007/s00198-016-3798-x. Epub 2016 Dec 5.   
III. Bauman WA, Kirshblum S, Cirnigliaro C, Forrest GF, Spungen AM. Underestimating of bone loss of the spine woth posterior-anterior dual-energy X-ray absorptiometry in patients with spinal cord injury. J Spinal Cord Med. 2010;33(3):214-20.D. Research Support   
Active Research Support   
90RE5021-01-00 Rehabilitation Engineering Research Centers (RERC)   
Forrest (project PI) 7/1/114 – 12/31/19   
National Institute on Disability, Independent Living and Rehabilitation Research   
Site Project: Exoskeleton and spinal cord stimulation for SCI:   
We propose that the combination of interventions of the exoskeleton assisted walking (EAW) with transcutaneous lumbosacral stimulation (TLS) would increase the excitability of the cord and afferent input when training in the exoskeleton to increase lower extremity muscle firing and to functionally increase walking speed.   
W81XWH-14-2-0190 Department of Defense PI Forrest 9/1/14-8/30/18   
USAMRAA/CDMRP/DoD   
Testosterone combined with Electrical Stimulation and Stand Retraining.   
A Phase I/II prospective, randomized, double blind, controlled, multi-site clinical trial where the primary aim is to determine the neurological and neuromuscular interaction of testosterone, neuromuscular stimulation of multiple lower limb muscles and loading in individuals with sub acute to early chronic SCI who are non ambulatory. Ultimately we are interested in recovery of muscle and bone and the effect on functional motor gain for chronic SCI.   
B1-2015-PP PI Harkema Forrest (Co-I) 3/4/15 – 3/4/2020   
Christopher Dana Reeves Foundation.   
BIG Idea Project: Recovery of Autonomic control of cardiovascular and bladder function and the ability to stand and voluntary leg control movements below the level if injury with epidural stimulation   
The objective of the project is to test the hypotheses related to neural control of human movement and cardiovascular function after human spinal cord injury while also obtaining knowledge for optimizing spinal cord epidural stimulation (scES) as a therapeutic intervention that can be immediately translated to larger numbers of patients who now have no treatment options for the secondary consequences of spinal cord injury.   
SC140099 Department of Defense PI Bloom; Site PI Forrest 9/1/15-8/30/18   
USAMRAA/CDMRP/Department of Defense   
Biomarkers of Spontaneous Recovery from Traumatic Spinal Cord Injury   
The objective is to test the hypothesis that levels of some inflammatory biomarkers correlate inversely with functional recovery throughout the first year after spinal cord injury (SCI). The project specific aims are to (1) identify the circulating inflammatory response in patients with SCI, (2) determine the trajectory of spontaneous functional recovery in patients with SCI, and (3) derive a predictive, multiscale model of functional recovery after SCI.   
W81XWH-14-2-0170 PI Spungen – Site PI Forrest 9/1/2014-8/30/2017   
USAMRAA/CDMRP. Department of Defense   
A Randomized, Crossover Clinical Trial of Exoskeletal-Assisted Walking to Improve Mobility, Bowel Function, and Cardiometabolic Profiles in Persons with SCI”   
The primary objectives of this research is to document how long it will take to reach functional gains, such as speed and distance after 36 sessions of training with these devices. Preliminary studies support the goals that walking in the exoskeletons will improve bowel function and body composition.   
  
CSCR13IRG013 Forrest (PI) 6/17/2013-6/16/2017   
New Jersey Commission on Spinal Cord Research)   
Non-ambulatory SCI walk using a Robotic Exoskeleton: Effect on bone and muscle   
The overall purpose of this pilot study is to assess if 5 hours per week for 20 weeks of exoskeleton-assisted walking over ground for persons with chronic SCI will positively affect the musculoskeletal system. In addition we will evlaute the human neuromuscluar and mechanic reposne to the robot.   
  
H133N110020 Forrest (Co-PI) 10/01/2011 – 9/31/17   
NIDRR Models Systems Primary Research Project   
Restoring Lost Functions after Spinal Cord Injury: Combination Therapy with Dalfampridine and Locomotor Training for Persons with Chronic, Motor Incomplete Spinal Cord Injury.   
The primary purpose of this National Institute on Disability and Rehabilitation Research funded project is to examine the effect of combination of Dalfampridine and Locomotor Training on walking distance and musculoskeletal system.   
1R21NS095052-01A1 Jiang T (PI) Forrest (Co-I) 04/01/2016-3/31/2018   
NINDS. Major goal is to complete Longitudinal Assessment of Spinal Cord Structural Plasticity using DTI in SCI Patients   
CSCR15ERG013NJC: Jiang T (PI) Forrest (Co-I) 6/29/2015-6/30/2017   
New Jersey Commission on Spinal Cord injury   
The major goal is assessing Spinal Cord Structural Changes using Diffusion Tensor Iimaging in Patients with Incomplete Traumatic Spinal Cord Injury   
143298 Forrest (Co-PI) 01/01/7 – 9/31/16   
NIDRR   
Advanced Rehabilitation Research and Training Center (ARRTC) on Neuromusculoskeletal Rehabilitation Post-Doctoral Training Grant.   
The purpose of this NIDRR funded ARRT project is to provide research training and experience at an advanced level to individuals with doctorates or similar advanced degrees who have clinical or other relevant experience.   
07-3063-SCR-E-0 Forrest (Co-PI) 01/01/7 – 1/31/17   
Center For Disease Control and Christopher Dana Reeves Foundation   
NeuroRecovery Network grant.   
The major goal of this project is to develop specialized centers that provide standardized activity-based therapy care based on current scientific and clinical evidence for people with SCI and other selected neurological disorders.   
CSCR14ERG007 Pilkar (PI) Forrest (Co-I) 10/17/2014-9/16/2017   
New Jersey Commission on Spinal Cord Research   
Development of Signal Processing Toolbox for Assessing Neuromuscular Response during Electrical Stimulation.   
The goal of this study is to develop a robust signal processing algorithm to extract EMG during ES and study the physiological significance of ES on neuromuscular properties of the stimulated muscle. The outcomes of this study will help in understanding the direct effects of ES on muscles by getting access to high quality EMG during ES and help the clinician or researcher to modify and optimize FES training paradigms based on the target muscle response. This could have a major impact on the field of spinal cord injury research and rehabilitation   
Completed Research Support   
Parker Hannifan Forrest (Site PI) 10/17/2014-9/16/2015   
Indego® Exoskeleton; Assessing Mobility for Persons with Spinal Cord Injury (SCI).   
\*Two separate protocols are under the one title; \*PH-INDO1 (FDA) and \*PH-IND02 (Exploratory)   
Description of Project:   
The purpose of this project is to evaluate if the Indego® robotic device is both safe and effective at allowing persons with SCI who are non-ambulatory or poorly ambulatory to stand up and walk under a variety of conditions; indoor surfaces, outdoor surfaces, elevators, managing doorways, different seat heights and extended distances.   
NJCSCR13FEL009 Forrest (Co-I) 10/17/2014-9/16/2015   
New Jersey Commission on Spinal Cord Research   
Quantitative Measure of Force During Electrical Stimulation: An Exploratory Study   
The overall purpose of this pilot study is to assess the muscle activation, 3D forces and moments generated at the knee during ES induced contraction during standing for motor complete SCI. Mentor: Forrest GF   
Mehmed Bugrahan Bayram (PI)

***Enrica Rejc, Ph.D***  
University of Lousiville

*(no CV uploaded)*

***Susan Harkema, Ph.D***  
University of Lousiville

*(no CV uploaded)*

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**Advancing Recovery after Spinal Cord Injury utilizing Lower Extremity Neuromuscular Electrical Stimulation**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Amanda Oakley, PT, DPT, NCS***  
Frazier Rehabilitation Institute

**CV:**  
AMANDA K. OAKLEY, PT, DPT, NCS   
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4800 Grand Dell Drive Crestwood, KY 40014 AmandaOakley@KentuckyOneHealth.org (443) 690-9747   
  
EDUCATION:   
Creighton University, Omaha, NE   
Doctor of Physical Therapy May 2009   
Bachelor of Science in Health Sciences May 2009   
LICENSURE/CERTIFICATION:   
Kentucky Physical Therapy License Issued: March 2015 No: 006577   
Maryland Physical Therapy License Issued: January 2010 No: 23169   
Neurologic Clinical Specialist Issued: June 2014 No: 44117   
EMPLOYMENT:   
Frazier Rehabilitation Hospital Louisville, Kentucky April 2015-Current   
· Research Physical Therapy Supervisor: April 27th, 2015-Current   
· Perform direct patient care, specifically delivery of activity-based therapies including locomotor training and neuromuscular electrical stimulation, to the adolescent and adult rehabilitation population. Supervise all therapists assisting with research by scheduling and assigning to research activities related to providing interventions, conducting outcomes assessments and collecting and analyzing data; coordinating and leading team meetings; monitoring research productivity; and contributing to annual performance evaluations.   
Kennedy Krieger Institute’s (KKI) International Center for Spinal Cord Injury (ICSCI) Baltimore, Maryland Sept 2010-Feb 2015   
· Physical Therapist III: October 2013-February 2, 2015   
· Serve as a clinical specialist for the clinic in the areas of orthotics and FES gait training for pediatric and adult patients. Co-coordinate a multidisciplinary orthotics clinic that utilizes a clinical decision-making algorithm regarding lower extremity management to optimize range of motion, positioning and gait training.   
· Physical Therapist II: September 2012-February 2015   
· Serve as the ICSCI coordinator for the four-week spinal cord injury clinical rotation for the Johns Hopkins Hospital and University of Delaware Neurology Physical Therapy Residency.   
· Co-lead a Gait Track consisting of two orthotists and five skilled physical therapists that meet bi-monthly to develop a lower extremity bracing algorithm and technical specification forms.   
· Staff mentoring in the areas of orthotic assessment, functional electrical stimulation gait training, focused rigidity splint fabrication, serial cast fabrication, gait analysis, proprioceptive neuromuscular training in gait and land and aquatic based locomotor training.   
· Physical Therapist I: September 2010-September 2012   
· Evaluation and treatment of children and adults with spinal cord injury using the activity-based restorative therapy model   
· Supervision of full and part-time students   
Johns Hopkins Children’s Hospital Baltimore, Maryland Oct 2010-February 2015   
· Per diem Acute Care Physical Therapist providing care to children in the pediatric intensive care unit and on the neurology, oncology, cardiology, orthopedic, burn, and medicine floors.   
Johns Hopkins Hospital Baltimore, Maryland Jan 2010-Sept 25, 2010   
· Acute Care Physical Therapist providing care on the pediatric, neurological and medical floors in addition to a three month rotation on the medical intensive care unit.   
Genesis Medical Center DeWitt, Iowa Aug 2009-Nov 2009   
· Temporary Physical Therapist in a rural community providing care in the acute care, skilled inpatient, skilled nursing facility and outpatient neurological and orthopedic settings.   
Creighton University Medical Center Omaha, Nebraska Aug 2004-May 2006   
· Pathology Lab Assistant in gross specimen room and morgue   
Larry Gilliland Family Yuma, Colorado Summer 2005, 2006   
· Caretaker for child with autism, assisted speech therapist in bi-weekly sessions, attended special needs summer camp with family and participated in intensive therapy sessions with physical, occupational, music, and speech therapists.   
RESEARCH:   
Frazier Rehab Institute Louisville, Kentucky September 2016   
· Oakley AK, Garvin MF, Willhite A, Recj E, Harkema SJ. Shift from Immobility Paradigm to Recovery Driven by Neuromuscular Electrical Stimulation for Patient with Acute Lower Motor Neuron Injury. Accepted as a Poster Presentation, Academy of Spinal Cord Injury Professionals (ASCIP) Meeting, Nashville, Tennessee 2016.   
-The purpose of this study was to demonstrate the effects of multi-muscle, high frequency, wide pulse width, task specific and repetitious NMES to the lower extremities (LEs) as a therapeutic intervention for a patient with LMN SCI in the acute setting.   
  
Kennedy Krieger Institute Baltimore, Maryland September 2013   
· Oakley A, Warwick L, Martin R, McDonald J, Becker D. Aquatic Activity-Based Restorative Therapy (ABRT) in an Individual with Spinal Cord Injury. Accepted as a Poster Presentation, Academy of Spinal Cord Injury Professionals (ASCIP) Meeting, Las Vegas, Nevada 2013.   
-The purpose of this study was to demonstrate the positive correlation of a combined land and aquatic activity based restorative therapy program to restore functional mobility over the course of twelve weeks for an individual with an ischemic stroke.   
  
Creighton Physical Therapy Department Omaha, Nebraska Jan 2008-May 2011   
· Furze JA, Nelson K, Ortner A, O’Hare M, Threlkeld AJ, Jensen GM. Uncovering the Complexity of Clinical Reasoning: A Pediatric Case Study Utilizing a Model of Enablement. Pediatric Physical Therapy. Published Peer Reviewed Journal Article 7/17/2012.   
· Furze J, O’Hare M, Ortner A, Nelson K, Wutzke C.J., Threlkeld A. Aquatic Exercise for a Child with Cerebral Palsy: A Case Study. Submitted as an Abstract in Journal of Aquatic Physical Therapy, Spring 2009.   
· O’Hare M, Ortner A. Aquatic Exercise for a Child with Cerebral Palsy: A Case Study. Accepted as a Poster Presentation, American Physical Therapy Association (APTA) Combined Sections Meeting, Las Vegas, Nevada 2009.   
-The purpose of this study was to assess the effects of a bi-weekly aquatic therapy program over the   
course of ten weeks on lower extremity strength, quality of gait, endurance, and functional use of upper extremities in a child with triplegia cerebral palsy.   
  
PRESENTATIONS:   
Frazier Rehabilitation Louisville, Kentucky 2015-Current   
· Shift from Immobility Paradigm to Recovery Driven by Neuromuscular Electrical Stimulation for Patient with Acute Lower Motor Neuron Injury. Presenter at KentuckyOne Health Research Symposium. May 11th, 2016.   
Kennedy Krieger Institute Baltimore, Maryland May 2011-Feb 2015   
· Pediatric Spinal Cord Injury: A Family-Centered And Restorative Approach To Gait Training. Selected to present a 30 minute symposium at the American Congress of Rehabilitation Medicine. October 2014.   
· Advanced Locomotor Training. Progress in Practice: Activity-Based Restorative Therapy (ABRT). Presenter at continuing education training hosted by ICSCI. September 26th, 2014.   
· Robot-Aided Gait Training in an Individual with Chronic Spinal Cord Injury. Department journal club. September 4, 2014.   
· Technological Advancements in Spinal Cord Injury. Presenter at continuing education training at the Maryland Chapter of the APTA. November 16th, 2013.   
· Functional Electrical Stimulation in Gait Training. Department Lecture. August 2013.   
· Pediatric Gait Analysis and Orthotic Management with AFO Footwear Combinations. Staff In-service. May 2013.   
· Executing a Standardized Health and Wellness Examination for the Chronic Patient with Comorbidities. Staff In-service. March 2012   
· Incorporating Vestibular Rehabilitation into the Treatment of Patients with Neurological Dysfunction. Staff In-service. June 2011   
· Importance of Team Centered Care to Optimize Patient Care in the Treatment of an International Patient with an Acute Spinal Cord Injury. Staff Rounds. May 2011   
Johns Hopkins Hospital Baltimore, Maryland Sept 17, 2010   
· Understanding the Chest Radiograph and Incorporating the Findings into Physical Therapy Practice. Staff In-service September 2010.   
University of Illinois at Chicago Chicago, Illinois Aug 2008-Dec 2008   
· Efficacy of Out-patient Pulmonary Rehabilitation in Patients with Chronic Obstructive Pulmonary Disease. Staff and Intern In-service. September 2008.   
· Exploration of Phase I Cardiac Rehabilitation with Emphasis on Participation, Barriers, Appropriate Length of Stay, and Effects of Early Discharge. Staff and Intern In-service. October 2008.   
· Facilitation of a New Acute Care, Evidence Based Rehabilitation Protocol for Patients Immediately Post-operative with Below or Above Knee Amputation. Staff and Intern In-service. December 2008.   
HONORS:   
· Creighton University Young Alumni of the year at School of Pharmacy and Health Professions (SPAHP), Fall 2016   
· Physical Therapy student speaker at School of Pharmacy and Health Professions (SPAHP) Hooding, Spring 2009   
· Physical Therapy student speaker at SPAHP Professionalism Ceremony, Fall 2007   
· Creighton University SPAHP Dean’s Honor Roll, Summer and Fall 2007   
· Creighton University Undergraduate Dean’s Honor Roll, Fall 2004-Spring 2006   
· Creighton University Undergraduate Dean’s Service Honor Roll, Fall 2004-Spring 2006   
LEADERSHIP:   
· Frazier Rehabilitation Louisville, Kentucky 2015-Current   
· Mentor for two students within NeuroRecovery Training Institute Neurological Clinical Residency   
· Team Instructor for NeuroRecovery Training Institute Lower Extremity Neuromuscular Electrical Stimulation course   
· Kennedy Krieger Institute Baltimore, Maryland 2011-Feb 2015   
· Coordinator for Spinal Cord Injury Clinical Component of Johns Hopkins Hospital and University of Delaware Neurology Physical Therapy Residency.   
· American Physical Therapy Association (APTA) Credentialed Clinical Instructor   
· American Spinal Injury Association (ASIA) trained physical therapist at ICSCI   
· Bioness L300 and L300 Plus co-coordinator for trainings at ICSCI   
· Locomotor Training Clinic team member at ICSCI   
· Gait Track co-coordinator for development of lower extremity bracing algorithm   
· Regeneration Generation Group leader at ICSCI   
· Committee Member for the Kennedy Krieger Baltimore Running Festival Team   
· Member of the Executive Board for Baltimore Adaptive Recreation and Sports (BARS) recruiting staff and patients to promote health and wellness through adaptive sports   
· Johns Hopkins Hospital Baltimore, Maryland 2010   
· Acute Care Representative for Johns Hopkins Physical Medicine and Rehabilitation Professional Group   
· Social Chair for Service Excellence Team at Johns Hopkins Hospital   
· Creighton University Omaha, Nebraska 2006-2009   
· Vice President of Nebraska Student Special Interest Group for Nebraska Physical Therapy Association   
· Ambassador for Creighton SPAHP   
· Representative on Creighton SPAHP Academic Issues Hearing Board   
· Vice President of Physical Therapy for Pediatrics Club   
· Student Usher at APTA’s 2007 Annual Conference   
MEMBERSHIP:   
· Member of the APTA (2007-present)   
· Member of the Pediatric and Neurology Sections of the APTA (2009-present)   
SERVICE:   
Frazier Rehabilitation Louisville, Kentucky 2015-Present   
· Served as team member for Walk to Victory Over Paralysis to raise funds for community fitness and wellness packages for individuals with spinal cord injuries (2015-2016)   
· Volunteered for Frazier Rehabilitation Ironman in order to contribute funds to support housing for individuals with spinal cord injury seeking out-patient rehabilitation (2015-2016)   
Kennedy Krieger Institute Baltimore, Maryland 2010-2015   
· Served as a Kennedy Krieger Charity committee member, running coach, team member and runner at the Baltimore Running Festival to raise funds for therapeutic recreational equipment for individuals with spinal cord injuries (2012-2015)   
· Fundraised for the Kennedy Krieger Institute’s Family Fund in order to assist children with equipment needs (2011-2015)   
· Transfered children and adults with neurological impairments into adaptive equipment for snow skiing, water skiing, kayaking and sailing as part of the BARS program (2011-2015)   
· Creighton University Omaha, Nebraska 2006-2009   
· Provided four weeks of physical therapy education to doctors, patients and families in a public pediatric hospital that serviced the northern half of the country where no physical therapists were employed. Developed plans of treatment and provided acute therapy servies to pediatric patients in the trauma, orthopedic, intensive care, neonatal intensive care and burn units.   
· Organized wheelchair cleanings at JP Lord, local elementary school for children with disabilities   
· Planned and implemented carnival at the Children’s Respite Care Center   
· Monthly played games and supervised children with developmental disabilities at Ollie Web Kids Club   
· Fitted and adapted wheelchairs for children with disabilities at the AMBUCS Harvest Party   
· Assisted with Amyotrophic Lateral Sclerosis in the Heartland Auction which raised over $100,000   
for ALS research   
· Collected donations for Joint Effort Volleyball Tournament, the largest fundraiser for the Nebraska Arthritis Foundation   
· Participated weekly in summer hippotherapy sessions, leading and saddling horses for children with disabilities   
· Provided pro-bono physical therapy treatment for members of Ponca Indian Tribe   
· Implemented and organized exercise class for obese children and families in South Omaha   
· Worked on Creighton University’s build sites in Council Bluffs, IA for Habitat for Humanity   
· Socialized and danced with adolescents and adults with disabilities at Ollie Webb Halloween, Valentine’s   
Day and Formal Dance   
· Provided caretaking services for a family in Omaha, Nebraska with a medically fragile child   
CLINICAL SKILLS:   
Neurological Rehabilitation for Children and Adults   
Activity-Based Restorative Therapy   
Neuromuscular Electrical Stimulation   
Locomotor Training   
ISNCSCI evaluations   
Functional Electrical Stimulation in Gait Training   
Orthotic Management for Lower Extremity Bracing   
Splint Fabrication   
Aquatic Therapy   
CONTINUING EDUCATION:   
Enhancing Patient Engagement: Tools for Behavior Change. August 2016.   
ASCIP Educational Conference and Exposition. September 2016.   
NeuroRecovery Training Institute: Activity Based Therapy. May 2016.   
NeuroRecovery Training Institute: Neuromuscular Electrical Stimulation for Lower Extremities. June 2016.   
NeuroRecovery Training Institute: Advanced Locomotor Training. November 2015.   
NeuroRecovery Training Institute: Neuromuscular Recovery Scale. May 2015.   
Boston Brace Dynamic Movement Orthosis and Functional Electrical Stimulation. September 2014.   
Kinesiotherapy I and II Fundamental Concepts of the Kinesiotaping Method. September 2014.   
Ultraflex: Emerging Orthotic Management Concepts in Neurorehabilitation. February 2014.   
ASCIP Educational Conference and Exposition. September 2014.   
Cascade: Assessing, Casting and Ordering for Dynamic Lower Extremity Orthoses. September 2013.   
Pediatric Gait Analysis and Orthotic Management with Footwear Combinations. April 2013.   
Sure Step Continuing Education: Clinical Decision Making for Pediatric Orthoses. March 2013.   
Bioness Incorporated: L300 Plus upgrade training. February 2013.   
Institute of Physical Art: Proprioceptive and Neuromuscular Facilitation. April 2012.   
Executing a Health and Wellness Evaluation. March 2012.   
Walk-Aide: Dynamic FES-Assisted Orthoses. Kennedy Krieger Institute. November 2011.   
APTA Clinical Instructor Credentialing Course. October 2011.   
NeuroRecovery Training Institute: Locomotor Training. October 2011.   
Johns Hopkins Hospital: Multiple Sclerosis Across the Lifetime. March 2011.   
Restorative Therapies: Functional Electrical Stimulation (FES) Ergometry. January 2011.   
Aquatics Therapy University: High-Touch Aquatic Therapy Custom Polyclinic. January 2011.   
REFERENCES:   
Available upon request

***April Herrity, PhD***  
University of Louisville Kentucky Spinal Cord Injury Research Center

*(no CV uploaded)*

***Kelly O'Brien, PT, DPT, NCS***  
Frazier Rehabilitation Institute

*(no CV uploaded)*

***Carrie Shogren, OTR/L***  
Courage Kenny Rehabilitation Institute

*(no CV uploaded)*

***Candy Tefertiller, PT, DPT, NCS***  
Craig Hospital

*(no CV uploaded)*

***Gail Forrest, PhD***  
Kessler Foundation

*(no CV uploaded)*

***Susan Harkema, PhD***  
Frazier Rehabilitation Institute; University of Louisville Kentucky Spinal Cord Injury Research Center

*(no CV uploaded)*

**51**

**Pain, Depression, and Resilience and their Relation to Life Satisfaction in Spinal Cord Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Heather Taylor, PhD***  
Tirr Memorial Hermann

**CV:**  
CURRICULUM VITAE   
  
DATE: October 1, 2017   
  
NAME:   
Heather B. (Wallrath) Taylor, Ph. D.   
  
PRESENT TITLE:   
  
Director of Spinal Cord Injury and Disability Research   
Senior Scientist   
Center Director of NeuroRecovery Network   
TIRR Memorial Hermann   
  
Associate Professor of Pediatrics   
University of Texas Medical School - Houston   
  
Adjunct Associate Professor of Physical Medicine and Rehabilitation   
University of Texas Medical School – Houston   
  
Adjunct Associate Professor for Physical Medicine and Rehabilitation   
Baylor College of Medicine   
  
  
ACADEMIC APPOINTMENTS:   
  
Assistant Professor, 2001 – 2004   
Physical Medicine and Rehabilitation   
Center for Research on Women with Disabilities (CROWD)   
Baylor College of Medicine   
Houston, Texas   
  
  
Associate Director of Research, 2002-2004   
Department of Physical Medicine and Rehabilitation   
Center for Research on Women with Disabilities (CROWD)   
Baylor College of Medicine   
Houston, Texas   
  
Assistant Professor, 2005 – 2012   
Pediatrics   
Developmental Pediatrics/Children’s Learning Institute   
University of Texas Medical School - Houston   
Houston, Texas   
  
Adjunct Associate Professor, 2012 – present   
Physical Medicine and Rehabilitation   
TIRR Memorial Hermann   
Baylor College of Medicine   
Houston, Texas   
  
Adjunct Associate Professor, 2012 – present   
Pediatrics   
Developmental Pediatrics/Children’s Learning Institute   
University of Texas Medical School - Houston   
Houston, Texas   
  
  
HOSPITAL APPOINTMENTS:   
  
Center Director for the NeuroRecovery Network, 2012 – 2017   
NeuroRecovery Network   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
NeuroRecovery Network Affiliate – Director 2017-present   
NeuroRecovery Network   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
Director for Spinal Cord Injury and Disability Research, 2012–Present   
Spinal Cord Injury Program   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
  
LICENSURE:   
  
1994 – 1997 Licensed Professional Counselor (LPC) in state of West Virginia   
  
1994 – 2006 Licensed Professional Clinical Counselor (LPCC) in state of Ohio   
  
  
CERTIFICATION:   
  
1994 – 2011 National Certified Counselor (NCC)   
  
2010 – Present Autism Diagnostic Observation Schedule –WPS (ADOS-WPS) Clinically Certified   
  
  
  
MENTORING ACTIVITIES:   
  
Physician and Clinician Research Mentoring (2012-2016) – Performed monthly research meetings with UTHealth and Baylor College of Medicine physicians working at TIRR MH to provide guidance and mentoring on individual research projects.   
  
TIRR Innovative Grant Submission (2012-present) Perform as needed guidance and mentoring to clinical staff members at TIRR MH who are applying for annual innovative grant funding.   
  
CURRENT GRANT SUPPORT:   
  
Co-Investigator, Subcontract, UTHSC/TIRR MH with Texas A&M, Michelle Hooper, Ph.D., Principal Investigator, Functional Consequences of Acute Opioid use in Traumatic SCI Patients, funded by the Craig Neilsen Foundation, December 07, 2016 – November 6, 2018.   
  
Principal Investigator/Project Director, TIRR Memorial Hermann, Texas Model Spinal Cord Injury System (TMSCIS), funded by the National Institute for Disability and Rehabilitation Research (NIDRR), September 29, 2016 – 2021, $3,000,000 Total Direct Cost   
  
Principal Investigator, TIRR Memorial Hermann, The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury, funded by the National Institute for Disability, Independent Living, and Rehabilitation Research (NIDRR), September 2016 – 2019, $599,000.   
  
Principal Investigator, Subcontract, TIRR Memorial Hermann with University of Louisville, NeuroRecovery Network (NRN), Susan Harkema, PhD, Principal Investigator, funded by the Centers of Disease Control and the Christopher and Dana Reeves Foundation, April 2012 – 2016 (2016 -2017 no cost extension), $100,000 Total Direct awarded annually.   
  
Principal Investigator, UTHSC and TIRR Memorial Hermann, Enhancing Early Learning for Infants with Disabilities: A Responsive Parenting Intervention, funded by the Institute of Educational Sciences, September 2012 – August 2016,(September 2016 – January 2018 – no cost extension) $2,600,000 Total Direct Cost.   
  
Principal Investigator, Subcontract, TIRR Memorial Hermann with Stonybrook, Health Outcomes and Locomotor Training in SCI, Sue Ann Sisto, PT PhD, Principal Investigator, funded by the Craig H. Neilsen Foundation, January 2014 – December 2017.   
  
Principal Investigator, TIRR Memorial Hermann, The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury, funded by the National Institutes of Disability, Independent Living, and Rehabilitation Research, 2016/09/30-2019/09/29, $600,000 Total Direct   
  
Co-Investigator, TIRR Memorial Hermann, Development of an eHealth Group Weight Management Intervention for People with Spinal Cord Injury, Susan Robinson-Whelen, Ph.D, Principal Investigator, funded by the Craig Neilsen Foudation, 2016-2018, $400,000.   
  
PUBLICATIONS:   
  
Non-Refereed Publications and Abstracts from last 5 years:   
1. Berman, A., Watson, E., Fried, G., D’Urso, K., D’Urso, D., Cavadini, N., Brooks, M., Kern, M., Wenzel, L., Taylor, H., Ardolino, E. (2012) Restorative rehabilitation entails a paradigm shift in pediatric incomplete spinal cord injury in adolescence: An illustrative case series. Journal of Pediatric Rehabilitation Medicine, 5(4), 245-259.   
  
2. Taylor, H.B., Barnes, M.A., Landry, S.H., Swank, P., Fletcher, J.M., and Huang, F. (2013) Motor contingency learning and infants with Spina Bifida. Journal of the International Neuropsychological Society, 19(2), 206-215.   
  
3. Pike, M., Swank, P., Taylor, H., Landry, S. and Barnes, M.A. (2013) Effect of Preschool Working Memory, Language, and Narrative Abilities on Inferential Comprehension at School-Age in Children with Spina Bifida Myelomeningocele and Typically Developing Children. Journal of the International Neuropsychological Society, 7, 1-10.   
  
4. Frye, R., De Latore, R., Taylor, H.B., John Slattery, Stephan Melnyk, Nupur Chowdhury and S. Jill James (2013) Metabolic Effects of Sapropterin Treatment in Autism Spectrum Disorder: A Preliminary Study. Translational Psychiatry, 3, e237.   
  
5. Landry, S.H., Taylor, H.B., Swank, P., Barnes, M.A., Juranek, J. (2013) Longitudinal Mediators of Social Problem Solving in Spina Bifida and Typical Development. Rehabilitation Psychology, 50(2), 196-205.   
  
6. Landry, S.H., Zucker, T., Taylor, H.B., Swank, P.R., Williams, J.M., Assel, M.A., Crawford, A., Clancy-Menchetti, J., Eisenberg, H., Spinrad, T.L., Valiente, C., Lonigan, C.J., Phillips, B.M., Wilson, S., Barnes, M., Starkey, P., Klein, A., and the School Readiness Consortium. (2013) Enhancing early childcare quality and learning for toddlers at risk: The responsive early childhood program. Developmental Psychology, DOI:10.1037/a0033494.   
  
7. Richard E. Frye, Rodrigo De La Torre, Heather B. Taylor, John Slattery, Stephan Melnyk, Nupur Chowdhury and S. Jill James. (2013) Redox Metabolism Abnormalities in Autistic Children Associated with Mitochondrial Disease. Translational Psychiatry, 3:e273. DOI:10.1038/tp.2013.51.   
  
8. Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., & Nosek, M. A. (2013). Depressive Symptoms in Women with Physical Disabilities: Identifying Correlates to Inform Practice. Archives of Physical Medicine and Rehabilitation, 94 (12), 2410-2416.   
  
9. Raghubar, K., English, L., Barnes, M., Taylor, H.B., Williams, J., and Landry, S. (2014) Longitudinal Mediators of Achievement in Mathematics and Reading in Typical and Atypical Development. Journal of Experimental Child Psychology, 119, 1-16.   
  
10. Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., Wenzel, L., and Nosek, M. A. (2014). Depression and depression treatment in women with spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 20 (1), 23-31.   
  
11. Hartoonian, N., Hoffman, J.M., Kalpakjian, C.Z., Taylor, H.B., Krause, J.K., and Bombardier, C.H. (2014). Evaluating a spinal cord injury – specific model of depression and quality of life. Archives of Physical Medicine and Rehabilitation, 95, 455-65.   
  
12. Raghubar, K., Barnes, M.A., Dennis, M., Cirino, P.T., Taylor, H., & Landry, S. Neurocognitive predictors of mathematical processing in school-age children with spina bifida and their typically developing peers: Attention, working memory, and fine motor skills. Neuropsychology. 2015 Nov;29(6):861-73. doi: 10.1037/neu0000196. Epub 2015 May 25. PMID: 26011113   
  
13. Lonigan CJ, Phillips BM, Clancy JL, Landry SH, Swank PR, Assel M, Taylor HB, Klein A, Starkey P, Domitrovich CE, Eisenberg N, de Villiers J, de Villiers P, Barnes M; School Readiness Consortium. Impacts of a Comprehensive School Readiness Curriculum for Preschool Children at Risk for Educational Difficulties. Child Dev. 2015 Nov-Dec;86(6):1773-93. doi: 10.1111/cdev.12460. Epub 2015 Oct 28. PMID: 26510099   
  
14. Merz EC, Landry SH, Williams JM, Barnes MA, Eisenberg N, Spinrad TL, Valiente C, Assel M, Taylor HB, Lonigan CJ, Phillips BM, Clancy-Menchetti J; the School Readiness Research Consortium. Associations Among Parental Education, Home Environment Quality, Effortful Control, and Preacademic Knowledge. J Appl Dev Psychol. 2014 Jul;35(4):304-315.PMID: 25110382   
  
15. Robinson-Whelen, S., Taylor, HB, Feltz, M., Whelen, K. Loneliness among people with spinal cord injury: Exploring the psychometric properties of the 3-item Loneliness Scale. Arch Phys Med Rehabil. 2016 Oct;97(10):1728-34. doi: 10.1016/j.apmr.2016.04.008   
  
16. Merz EC, Landry SH, Zucker TA, Barnes MA, Assel M, Taylor HB, Lonigan CJ, Phillips BM, Clancy-Menchetti J, Eisenberg N, Spinrad TL, Valiente C, de Villiers J, Consortium TS. Parenting Predictors of Delay Inhibition in Socioeconomically Disadvantaged Preschoolers. Infant Child Dev. 2016 Sep-Oct;25(5):371-390. Epub 2015 Nov 27. PMID: 27833461   
  
17. Mulcahey, MJ, Vogel, LC, Sheikh, M., Arango-Lasprilla, J.C., Augutis, M., Garner, E., Hagen, E.M., Jakeman, L.B., Kelley, E., Martin, R., Odenkirchen, J., Scheel-Sailer, A., Schottler, J., Taylor, H., Thielen, C.C., Zebracki, K. Recommendations for the National Institute for Neurologic Disorders and Stroke spinal cord injury common data elements for children and youth with SCI. Spinal Cord, 2016, Nov 15. Doi: 10.1038/sc.2016.139.   
  
18. Aravind, A., de Villiers, J. de Villiers, P. Lonigan, C.J., Phillips, B., Clancy, J., Landry, S.H., Swank, P.R., Assel, M., Taylor, H.B., Eisenberg, N., Spinrad, T., and Valiente, C. 2017. Children’s quantification with every over time. Glossa: a journal of general linguistics 2(1): 43. 1–16, DOI: https://doi.org/10.5334/gjgl.166   
  
19. Calhoun Theilen, C., Sadowsky, C., Vogel, LC., Taylor, H., Davidson, L, Bultman, J., Gaughan, J., Mulcahey, MJ. Evaluation of the walking index for spinal cord injury II (WISCI-II) in children with spinal cord injury (SCI). Spinal Cord. 2017 May:55(5): 478-482. doi: 10.1038/sc.2016.142. Epub 2016 Oct 18. PubMed PMID: 27752056   
  
20. Tamm L; Denton CA; Epstein JN; Schatschneider C; Taylor H; Arnold LE; Bukstein O; Anixt J; Koshy A; Newman NC; Maltinsky J; Brinson P; Loren REA; Prasad MR; Ewing-Cobbs L; Vaughn A. Comparing treatments for children with ADHD and word reading difficulties: A randomized clinical trial. Journal of Consulting and Clinical Psychology. 2017; 85(5):434-446 (ISSN: 1939-2117)   
  
21. Lydia DeFlorio, Alice Klein, Prentice Starkey, Paul R. Swank, Heather Taylor, Simone E. Halliday, Amber Beliakoff, and Christina Mulchahy. A Study of the Developing Relations Between Self-Regulation and Mathematical Knowledge in the Context of an Early Math Intervention. (submitted).   
  
22. Mulcahey, MJ., Calhoun Thielen, C., Sadowsky, C., Silvestra, MS., Martin, R., White, L., Cagney, J.A., Vogel, L., Schottler, J., Davidson, L., Parry, I., Taylor, H., Higgins, K., Feltz, M., Bultman, J., Mazurkiewicz, J., Gaughan, J. Despite Limitations, the SCIM-III is Reproducible and a Valid Indicator of Physical Function in Youths with Spinal Cord Injury. (submitted)   
  
Presentations from last 5 years:   
  
1. Taylor, H.B., Robinson-Whelen, S, Hughes, R., Nosek, M. (2012). Pain and Women with Spinal Cord Injury, Multiple Sclerosis, Joint Connective Tissue Disorders and other Physical Disabilities. American Congress for Rehabilitation Medicine, Vancouver, Canada.   
  
2. Taylor, H.B., Barnes, M., Landry, S., & Swank, P.R. (2012). Motor Contingency Learning in Infants with Spina Bifida. Howard H. Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Orlando, Florida.   
  
3. Watson, E., Ardolino, E., Taylor, H.B., Kern, M., Cavadini, N., D'Urso, D., Behrman, A.L., (2012). Locomotor Training Effects On Functional Mobility, Health, And Emotional Well-Being In Three Adolescents With Incomplete Spinal Cord Injuries—A Case Series. Howard Steel Conference, Orlando, Florida.   
  
4. Taylor, H.B., Robinson-Whelen, S., Hughes, R.B., Wenzel, L., Nosek, M.A., (2013). Examining the MHI-5 as a Depression Screening Measure. ACRM 90th Annual Conference, Orlando, Florida.   
  
5. Taylor, H.B., Robinson-Whelen, S., Hughes, R.B., Wenzel, L., Nosek, M.A., (2013). Depression and Depression Treatment of Women with Spinal Cord Injury: Are We Doing Enough? 40th American Spinal Injury Association, Chicago, IL.   
  
6. Taylor, H.B., Robinson-Whelen, S., Feltz, M., Swank, P.R. (2014). Measurement of Quality of Life Following Spinal Cord Injury. 41th American Spinal Injury Association, San Antonio, TX.   
  
7. Wenzel, L., Taylor, H.B. (2014). Evaluating the Diagnosis of Urinary Tract Infections (UTI) in SCI Patients. 41th American Spinal Injury Association, San Antonio, TX.   
  
8. Wenzel, L., Taylor, H.B. (2014). Hospital Acquired UTI in Patients with SCI: Description and Considerations. 41th American Spinal Injury Association, San Antonio, TX.   
  
9. Hammill, H., Wenzel, L., Taylor, H.B. (2014). Obstetrical Management of A Spinal Cord Injury Patient Cohort. 41th American Spinal Injury Association, San Antonio, TX.   
  
10. Zebracki, K., Taylor, H.B., Kelly, E., Russel, H., Augutis, M. (2015). The Transition from Pediatric to Adult Care [in Spinal Cord Injury]: Key Elements and Challenges. Joint 42nd American Spinal Injury Association/ISCoS, Montreal, CA.   
  
11. Robinson-Whelen, S., Taylor, H.B., Hughes, R.B., Nosek, M. (2016) Enhancing Self-esteem in Women with SCI: Testing the Feasibility of a Virtual-Reality Intervention Program, Presented at the 93rd Annual Conference of the American Congress for Rehabilitation Research, Chicago, IL   
  
12. Denton, C., Tamm, L., Schatsneider, C., Epstein, J., Arnold, L.E., Taylor, H. (2016). Effects of ADHD Treatment and Intensive Reading Instruction for Children with Comorbid ADHD and Significant Word Reading Difficulties, 45th Annual International Neuropsychological Society, Boston, MA.   
  
13. Carson, C. S., Ross, E., Williams, J. M., Taylor, H., Tallavajhula, S., & Struchen, M. A. (November, 2016). Sleep problems in acute spinal cord injury rehabilitation. Presented at the 93rd Annual Conference of the American Congress of Rehabilitation Medicine, Chicago, IL.   
  
14. Taylor, H.B., Fruge, E., Herron, C., and Eckert, S. (Sept 2017). Characterizing Arts in Medicine Performances and the Impact on Audience Engagement and Mood at a Children’s Cancer Center. Symposium accepted for presentation at the National Organization for Arts in Health: 30th Annual Healthcare Facilities Symposium and Expo, Austin Texas   
  
15. Taylor, H.B., Fletcher, S., Beers, L., and Nosek, M. (October 2017). Women With Disabilities and Pelvic Health: Overcoming Barriers to Health Education Using a Webinar Series. Symposium accepted for presentation at the 94th Annual Conference of the American Congress of Rehabilitation Medicine, Atlanta, GA.   
  
16. Silveira, S. L., Robinson-Whelen, S., & Taylor, H. (2017, October). Self-Report Weight Status and Weight Loss Efforts in Spinal Cord Injury Model Systems Participants. Abstract accepted for presentation at American Congress of Rehabilitation Medicine Annual Meeting, Atlanta, GA.   
  
17. Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Markley, R., Vega, J., & Nosek, M. A. (2017, November). Promoting Psychological Health Using the Online Virtual World of Second Life. Abstract accepted for presentation at the Texas Psychological Association Annual Convention, Houston, TX.

**52**

**Assessment of Trunk Muscle in Human Spinal Cord Injury:Discovery of Volitional Movement Below the Level of Injury**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Kelly O'Brien, PT, DPT, CNS***  
Frazier Rehab Institute

**CV:**  
Kelly O’Brien, PT, DPT, NCS   
Curriculum Vitae   
  
Research Physical Therapist   
Frazier Rehabilitation Institute   
220 Abraham Flexner Way Louisville, KY 40202   
Email: kellyobrien@kentuckyonehealth.org   
Phone: 502-581-8695   
  
Education   
2013-2014 Mercer University-Shepherd Center, Atlanta, Georgia   
Neurologic Residency, NCS in 2015   
  
2010-2012 DPT, Maryville University of St. Louis, Missouri   
Major: Physical Therapy   
  
2006-2010 BS summa cum laude, Maryville University of St. Louis, Missouri   
Major: Health Sciences   
  
Employment   
2015-Present Research Physical Therapist, Frazier Rehab Institute, Louisville, KY   
  
2014-2015 PRN Physical Therapist, SSM Rehabilitation Hospital, St. Louis, MO   
  
2013-2014 Neurology Resident, Mercer University-Shepherd Center, Atlanta, GA   
  
2013-2013 PRN Physical Therapist, ManorCare Health Services, St. Louis, MO   
  
Licenses and Certifications   
Kentucky 006710 2015-Present   
Missouri 2013004050 2013-Present   
Neurologic Clinical Specialist 45917 2015-Present   
  
Publications   
Herrity A, O’Brien K, Sharo K, Rizzo K, Garvin M, Harkema S. Progression of bladder and sensory recovery in a case of transverse myelitis. J Clin Nephrol Res. 2017; 4(3): 1065.   
  
Presentations   
“Lower Extremity Neuromuscular Electrical Stimulation 2016”   
Team Instructor   
NeuroRecovery Training Institute   
Frazier Rehab Institute, Louisville, 2016   
  
“Transition from Recovery-Based Rehabilitation to Wellness Program: Unexpected Physiological Gains.”   
O’Brien K, Rizzo K, Sharo K, Herrity A, Harkema S.   
Poster Presentation   
Academy of Spinal Cord Injury Professionals Conference, Nashville, 2016   
KentuckyOne Health Research Day, Louisville, 2016   
  
“Evidence-Based Review of a Patient with Disorders of Consciousness (DOC) through the Continuum of Care: A Case Study”   
O’Brien K.   
Poster Presentation   
Combined Sections Meeting, American Physical Therapy Association, Indianapolis, 2015   
  
“A Retrospective Analysis of the Relationships of BNP Level and 6-Minute Walk Distance in Patients with Acute Congestive Heart Failure”   
O’Brien K, Endres L, Freymuth L, Jaycox C, Sullivan S, Ricard P, Dias KJ.   
Poster Presentation   
Combined Sections Meeting, American Physical Therapy Association, San Diego, 2013   
Awarded Cardiovascular & Pulmonary Award   
  
Professional Associations   
American Physical Therapy Association Member, 2009 – Present   
o Neurology Section Member, 2013 – Present   
o APTA Credentialed Clinical Instructor, 2014   
  
Continuing Education   
• Academy of Spinal Cord Injury Professionals National Conference Courses September 2016   
• NeuroRTI Lower Extremity Neuromuscular Electrical Stimulation May 2016   
• NeuroRTI Advanced Locomotor Training March 2016   
• APTA CSM Continuing Education Courses February 2016   
• NeuroRTI Introduction to Locomotor Training November 2015   
• NeuroRTI Neuromuscular Recovery Scale October 2015   
• APTA Combined Sections Meeting (CSM) Continuing Education Courses February 2015   
• Dry Needling Competency Course July 2014   
• Teaching Advanced Wheelchair Skills post SCI May 2014   
• Explain Pain February 2014   
• Advancing Neurologic Practice 2013: 25 Webinars February 2014   
• Navigating the Course for Brain Injury Recovery September, 2013   
• The Supercharged Nervous System: Using practice and stimulation to promote functional plasticity after CNS injury April 2013   
• Physical Therapy Journal: Neuroimaging and Rehabilitation Series March 2013

***Darryn Atkinson, DPT, PhD***  
University of Lousville

*(no CV uploaded)*

***Jamie Ochsner, PT***  
Frazier Rehab Institute

*(no CV uploaded)*

***Carie Tolfo, PT, CNS***  
Frazier Rehab

*(no CV uploaded)*

***Susan Harkema,***   
University of Lousville

*(no CV uploaded)*

***Erin Wyles,***   
University of Louisville

*(no CV uploaded)*

**53**

**“A D is not a D”: Identifying sources of neuromuscular and functional heterogeneity within an AIS D population.**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Darryn Atkinson, PhD, PT***  
University of Louisville

**CV:**  
Darryn Atkinson, PhD, PT   
Condensed Curriculum Vitae   
  
4214 Hewitt Ave   
Louisville KY 40220   
darrynatkinson@catholichealth.net   
c: 832-693-9828   
  
Current Positions:   
2017-Present PRN Physical Therapist, Inpatient and Outpatient Rehabilitation   
Frazier Rehabilitation Institute, Louisville, KY   
2016-Present Post-Doctoral Research Associate, Kosair Charities Center for Pediatric NeuroRecovery, Kentucky Spinal Cord Injury Research Center, Dept. of Neurological Surgery, University of Louisville, Louisville, KY   
2016-Present Senior Instructor, Introduction to Locomotor Training, Neurorecovery Training Institute   
  
Licensure:   
2005-2012 Texas Physical Therapy license # 1162793   
2011-present Kentucky Physical Therapy license # 005746   
  
Publications:   
2017 Atkinson DA, Sayenko DG, Mink AM, Harkema SJ, Gerasimenko, YP. Propriospinal influence on lumbosacral motor neuron excitability: Effects on multisegmental muscle responses in leg muscles. (Submitted, Dec. 2016)   
  
Atkinson DA, Graves, DE. Development and Validation of the Thoracic-Lumbar Control Scale to Measure Strength and Coordination of Trunk Muscles (in preparation, anticipated submission Feb. 2017)   
  
Atkinson DA, Wyles JE, Aslan SA, Harkema SJ. Neurophysiological identification of postural muscle activation after spinal cord injury. (in submission preparation, anticipated submission Feb. 2017)   
  
2015 Sayenko DG, Atkinson DA, Floyd TC, Gorodnichev RM, Moshonkina TR, Harkema SJ, Edgerton VR, Gerasimenko YP. Effects of paired transcutaneous electrical stimulation delivered at single and dual sites over lumbosacral spinal cord. Neurosci Lett. 4;609:229-234 Nov 2015   
  
Sayenko DG, Atkinson DA, DY C, Gurley KM, Smith VL, Angeli CA, Harkema SJ, Edgerton VR, Gerasimenko, YP. Spinal segment-specific transcutaneous stimulation differentially shapes activation pattern among motor pools in humans. J Appl Physiol Epub ahead of print Mar 26, 2015   
  
2012 Behrman AL, Ardolino E, VanHiel LR, Kern M, Atkinson D, Lorenz DJ, Harkema SJ. Assessment of Functional Improvement Without Compensation   
Reduces Variability of Outcome Measures After Human Spinal Cord Injury. Arch Phys Med Rehabil 93:1518-1529, 2012   
  
Li K, Atkinson D, Boakye M, Tolfo CZ, Aslan S, Green M, McKay B, Ovechkin A, Harkema SJ. Quantitative and sensitive assessment of neurophysiological status after human spinal cord injury. J Neurosurg Spine (Suppl) 17:77–86, 2012   
  
Presentations:   
2014 Effects of ulnar nerve stimulation on excitability of lumbosacral motor neuron pools: method of investigation of long propriospinal pathways. 20th Annual Kentucky Spinal Cord and Head Injury Research Trust (KSCHIRT) Symposium, Lexington, KY   
  
2009 The Thoraco-lumbar Control Scale (as part of the symposium “Developing an International Data Set for SCI) American Congress of Rehabilitation Medicine, Denver CO   
  
  
Abstracts:   
  
2016 Atkinson DA, Sayenko DG, Mink AM, Gurley KM, Smith V, Gerasimenko YP, Harkema SJ. Functional neurophysiological assessment of volitional motor control following pediatric spinal cord injury. Society for Neuroscience Annual Conference, San Diego, CA.   
2015 Atkinson DA, Sayenko DG, Mink AM, Gurley KM, Smith V, Gerasimenko YP, Harkema SJ. Identifying descending propriospinal influence on lumbosacral motor neuron excitability after spinal cord injury: effects of ulnar nerve stimulation on MMR amplitude in leg muscles. Society for Neuroscience Annual Conference, Chicago, Il.   
2012 Atkinson D, Aslan S, Tolfo CZ, Green M, McKay B, Ovechkin A, Harkema SJ. Quantitative Assessment of Neurophysiological Status after Spinal Cord Injury. Academy for Spinal Cord Injury Professionals, Annual Conference, Las Vegas, NV.   
  
2010 Atkinson, D and Graves, DE. Interrelation of Trunk Scale and Functional Outcome Measures for Spinal Cord Injury 4th National (Canadian) Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada.   
  
Atkinson,D and Graves, DE. Reliability and Sensitivity of the Thoraco-Lumbar Control Scale. American Spinal Cord Injury Professionals (ASCIPRO) annual meeting, Las Vegas, NV

***Mary Schmidt Read, PT, DPT, MS***  
Magee Rehabilitation Hospital

*(no CV uploaded)*

***Candy Tefertiller, PT, DPT, NCS***  
Craig Hospital

*(no CV uploaded)*

***elizabeth watson, PT, DPT, NCS***  
Magee Rehabilitation Hospital

*(no CV uploaded)*

***Amanda Oakley, PT, DPT, NCS***  
Frazier Rehab Institute

*(no CV uploaded)*

***Meghan Joyce, PT, DPT, NCS***  
Craig Hospital

*(no CV uploaded)*

***Gail Forrest, PhD***  
Kessler Rehab Institute

*(no CV uploaded)*

***Buffy Wojceihowski, PT, DPT***  
Kessler Rehab Institute

*(no CV uploaded)*

***D. basso, Ed.D, PT***  
The Ohio State University

*(no CV uploaded)*

***Sue Ann Sisto, PT, MA, PhD, FACRM***  
Stony Brook University

*(no CV uploaded)*

***Susan Harkema, PhD***  
University of Louisville

*(no CV uploaded)*

***Andrea Behrman, PhD, PT***  
University of Louisville

*(no CV uploaded)*

**54**

**Parenting an adolescent with SCI: A case study on responsive parenting**

Wednesday, May 02, 2018 09:30 AM - 10:30 AM

***Heather Taylor, PhD***  
Tirr Memorial Hermann

**CV:**  
CURRICULUM VITAE   
  
DATE: October 1, 2017   
  
NAME:   
Heather B. (Wallrath) Taylor, Ph. D.   
  
PRESENT TITLE:   
  
Director of Spinal Cord Injury and Disability Research   
Senior Scientist   
Center Director of NeuroRecovery Network   
TIRR Memorial Hermann   
  
Associate Professor of Pediatrics   
University of Texas Medical School - Houston   
  
Adjunct Associate Professor of Physical Medicine and Rehabilitation   
University of Texas Medical School – Houston   
  
Adjunct Associate Professor for Physical Medicine and Rehabilitation   
Baylor College of Medicine   
  
  
ACADEMIC APPOINTMENTS:   
  
Assistant Professor, 2001 – 2004   
Physical Medicine and Rehabilitation   
Center for Research on Women with Disabilities (CROWD)   
Baylor College of Medicine   
Houston, Texas   
  
  
Associate Director of Research, 2002-2004   
Department of Physical Medicine and Rehabilitation   
Center for Research on Women with Disabilities (CROWD)   
Baylor College of Medicine   
Houston, Texas   
  
Assistant Professor, 2005 – 2012   
Pediatrics   
Developmental Pediatrics/Children’s Learning Institute   
University of Texas Medical School - Houston   
Houston, Texas   
  
Adjunct Associate Professor, 2012 – present   
Physical Medicine and Rehabilitation   
TIRR Memorial Hermann   
Baylor College of Medicine   
Houston, Texas   
  
Adjunct Associate Professor, 2012 – present   
Pediatrics   
Developmental Pediatrics/Children’s Learning Institute   
University of Texas Medical School - Houston   
Houston, Texas   
  
  
HOSPITAL APPOINTMENTS:   
  
Center Director for the NeuroRecovery Network, 2012 – 2017   
NeuroRecovery Network   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
NeuroRecovery Network Affiliate – Director 2017-present   
NeuroRecovery Network   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
Director for Spinal Cord Injury and Disability Research, 2012–Present   
Spinal Cord Injury Program   
Spinal Cord Injury and Disability Research (SCIDR)   
TIRR Memorial Hermann   
Houston, Texas   
  
  
LICENSURE:   
  
1994 – 1997 Licensed Professional Counselor (LPC) in state of West Virginia   
  
1994 – 2006 Licensed Professional Clinical Counselor (LPCC) in state of Ohio   
  
  
CERTIFICATION:   
  
1994 – 2011 National Certified Counselor (NCC)   
  
2010 – Present Autism Diagnostic Observation Schedule –WPS (ADOS-WPS) Clinically Certified   
  
  
  
MENTORING ACTIVITIES:   
  
Physician and Clinician Research Mentoring (2012-2016) – Performed monthly research meetings with UTHealth and Baylor College of Medicine physicians working at TIRR MH to provide guidance and mentoring on individual research projects.   
  
TIRR Innovative Grant Submission (2012-present) Perform as needed guidance and mentoring to clinical staff members at TIRR MH who are applying for annual innovative grant funding.   
  
CURRENT GRANT SUPPORT:   
  
Co-Investigator, Subcontract, UTHSC/TIRR MH with Texas A&M, Michelle Hooper, Ph.D., Principal Investigator, Functional Consequences of Acute Opioid use in Traumatic SCI Patients, funded by the Craig Neilsen Foundation, December 07, 2016 – November 6, 2018.   
  
Principal Investigator/Project Director, TIRR Memorial Hermann, Texas Model Spinal Cord Injury System (TMSCIS), funded by the National Institute for Disability and Rehabilitation Research (NIDRR), September 29, 2016 – 2021, $3,000,000 Total Direct Cost   
  
Principal Investigator, TIRR Memorial Hermann, The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury, funded by the National Institute for Disability, Independent Living, and Rehabilitation Research (NIDRR), September 2016 – 2019, $599,000.   
  
Principal Investigator, Subcontract, TIRR Memorial Hermann with University of Louisville, NeuroRecovery Network (NRN), Susan Harkema, PhD, Principal Investigator, funded by the Centers of Disease Control and the Christopher and Dana Reeves Foundation, April 2012 – 2016 (2016 -2017 no cost extension), $100,000 Total Direct awarded annually.   
  
Principal Investigator, UTHSC and TIRR Memorial Hermann, Enhancing Early Learning for Infants with Disabilities: A Responsive Parenting Intervention, funded by the Institute of Educational Sciences, September 2012 – August 2016,(September 2016 – January 2018 – no cost extension) $2,600,000 Total Direct Cost.   
  
Principal Investigator, Subcontract, TIRR Memorial Hermann with Stonybrook, Health Outcomes and Locomotor Training in SCI, Sue Ann Sisto, PT PhD, Principal Investigator, funded by the Craig H. Neilsen Foundation, January 2014 – December 2017.   
  
Principal Investigator, TIRR Memorial Hermann, The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury, funded by the National Institutes of Disability, Independent Living, and Rehabilitation Research, 2016/09/30-2019/09/29, $600,000 Total Direct   
  
Co-Investigator, TIRR Memorial Hermann, Development of an eHealth Group Weight Management Intervention for People with Spinal Cord Injury, Susan Robinson-Whelen, Ph.D, Principal Investigator, funded by the Craig Neilsen Foudation, 2016-2018, $400,000.   
  
PUBLICATIONS:   
  
Non-Refereed Publications and Abstracts from last 5 years:   
1. Berman, A., Watson, E., Fried, G., D’Urso, K., D’Urso, D., Cavadini, N., Brooks, M., Kern, M., Wenzel, L., Taylor, H., Ardolino, E. (2012) Restorative rehabilitation entails a paradigm shift in pediatric incomplete spinal cord injury in adolescence: An illustrative case series. Journal of Pediatric Rehabilitation Medicine, 5(4), 245-259.   
  
2. Taylor, H.B., Barnes, M.A., Landry, S.H., Swank, P., Fletcher, J.M., and Huang, F. (2013) Motor contingency learning and infants with Spina Bifida. Journal of the International Neuropsychological Society, 19(2), 206-215.   
  
3. Pike, M., Swank, P., Taylor, H., Landry, S. and Barnes, M.A. (2013) Effect of Preschool Working Memory, Language, and Narrative Abilities on Inferential Comprehension at School-Age in Children with Spina Bifida Myelomeningocele and Typically Developing Children. Journal of the International Neuropsychological Society, 7, 1-10.   
  
4. Frye, R., De Latore, R., Taylor, H.B., John Slattery, Stephan Melnyk, Nupur Chowdhury and S. Jill James (2013) Metabolic Effects of Sapropterin Treatment in Autism Spectrum Disorder: A Preliminary Study. Translational Psychiatry, 3, e237.   
  
5. Landry, S.H., Taylor, H.B., Swank, P., Barnes, M.A., Juranek, J. (2013) Longitudinal Mediators of Social Problem Solving in Spina Bifida and Typical Development. Rehabilitation Psychology, 50(2), 196-205.   
  
6. Landry, S.H., Zucker, T., Taylor, H.B., Swank, P.R., Williams, J.M., Assel, M.A., Crawford, A., Clancy-Menchetti, J., Eisenberg, H., Spinrad, T.L., Valiente, C., Lonigan, C.J., Phillips, B.M., Wilson, S., Barnes, M., Starkey, P., Klein, A., and the School Readiness Consortium. (2013) Enhancing early childcare quality and learning for toddlers at risk: The responsive early childhood program. Developmental Psychology, DOI:10.1037/a0033494.   
  
7. Richard E. Frye, Rodrigo De La Torre, Heather B. Taylor, John Slattery, Stephan Melnyk, Nupur Chowdhury and S. Jill James. (2013) Redox Metabolism Abnormalities in Autistic Children Associated with Mitochondrial Disease. Translational Psychiatry, 3:e273. DOI:10.1038/tp.2013.51.   
  
8. Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., & Nosek, M. A. (2013). Depressive Symptoms in Women with Physical Disabilities: Identifying Correlates to Inform Practice. Archives of Physical Medicine and Rehabilitation, 94 (12), 2410-2416.   
  
9. Raghubar, K., English, L., Barnes, M., Taylor, H.B., Williams, J., and Landry, S. (2014) Longitudinal Mediators of Achievement in Mathematics and Reading in Typical and Atypical Development. Journal of Experimental Child Psychology, 119, 1-16.   
  
10. Robinson-Whelen, S., Taylor, H. B., Hughes, R. B., Wenzel, L., and Nosek, M. A. (2014). Depression and depression treatment in women with spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 20 (1), 23-31.   
  
11. Hartoonian, N., Hoffman, J.M., Kalpakjian, C.Z., Taylor, H.B., Krause, J.K., and Bombardier, C.H. (2014). Evaluating a spinal cord injury – specific model of depression and quality of life. Archives of Physical Medicine and Rehabilitation, 95, 455-65.   
  
12. Raghubar, K., Barnes, M.A., Dennis, M., Cirino, P.T., Taylor, H., & Landry, S. Neurocognitive predictors of mathematical processing in school-age children with spina bifida and their typically developing peers: Attention, working memory, and fine motor skills. Neuropsychology. 2015 Nov;29(6):861-73. doi: 10.1037/neu0000196. Epub 2015 May 25. PMID: 26011113   
13. Lonigan CJ, Phillips BM, Clancy JL, Landry SH, Swank PR, Assel M, Taylor HB, Klein A, Starkey P, Domitrovich CE, Eisenberg N, de Villiers J, de Villiers P, Barnes M; School Readiness Consortium. Impacts of a Comprehensive School Readiness Curriculum for Preschool Children at Risk for Educational Difficulties. Child Dev. 2015 Nov-Dec;86(6):1773-93. doi: 10.1111/cdev.12460. Epub 2015 Oct 28. PMID: 26510099   
14. Merz EC, Landry SH, Williams JM, Barnes MA, Eisenberg N, Spinrad TL, Valiente C, Assel M, Taylor HB, Lonigan CJ, Phillips BM, Clancy-Menchetti J; the School Readiness Research Consortium. Associations Among Parental Education, Home Environment Quality, Effortful Control, and Preacademic Knowledge. J Appl Dev Psychol. 2014 Jul;35(4):304-315.PMID: 25110382   
  
15. Robinson-Whelen, S., Taylor, HB, Feltz, M., Whelen, K. Loneliness among people with spinal cord injury: Exploring the psychometric properties of the 3-item Loneliness Scale. Arch Phys Med Rehabil. 2016 Oct;97(10):1728-34. doi: 10.1016/j.apmr.2016.04.008   
16. Merz EC, Landry SH, Zucker TA, Barnes MA, Assel M, Taylor HB, Lonigan CJ, Phillips BM, Clancy-Menchetti J, Eisenberg N, Spinrad TL, Valiente C, de Villiers J, Consortium TS. Parenting Predictors of Delay Inhibition in Socioeconomically Disadvantaged Preschoolers. Infant Child Dev. 2016 Sep-Oct;25(5):371-390. Epub 2015 Nov 27. PMID: 27833461   
17. Mulcahey, MJ, Vogel, LC, Sheikh, M., Arango-Lasprilla, J.C., Augutis, M., Garner, E., Hagen, E.M., Jakeman, L.B., Kelley, E., Martin, R., Odenkirchen, J., Scheel-Sailer, A., Schottler, J., Taylor, H., Thielen, C.C., Zebracki, K. Recommendations for the National Institute for Neurologic Disorders and Stroke spinal cord injury common data elements for children and youth with SCI. Spinal Cord, 2016, Nov 15. Doi: 10.1038/sc.2016.139.   
18. Aravind, A., de Villiers, J. de Villiers, P. Lonigan, C.J., Phillips, B., Clancy, J., Landry, S.H., Swank, P.R., Assel, M., Taylor, H.B., Eisenberg, N., Spinrad, T., and Valiente, C. 2017. Children’s quantification with every over time. Glossa: a journal of general linguistics 2(1): 43. 1–16, DOI: https://doi.org/10.5334/gjgl.166   
19. Calhoun Theilen, C., Sadowsky, C., Vogel, LC., Taylor, H., Davidson, L, Bultman, J., Gaughan, J., Mulcahey, MJ. Evaluation of the walking index for spinal cord injury II (WISCI-II) in children with spinal cord injury (SCI). Spinal Cord. 2017 May:55(5): 478-482. doi: 10.1038/sc.2016.142. Epub 2016 Oct 18. PubMed PMID: 27752056   
20. Tamm L; Denton CA; Epstein JN; Schatschneider C; Taylor H; Arnold LE; Bukstein O; Anixt J; Koshy A; Newman NC; Maltinsky J; Brinson P; Loren REA; Prasad MR; Ewing-Cobbs L; Vaughn A. Comparing treatments for children with ADHD and word reading difficulties: A randomized clinical trial. Journal of Consulting and Clinical Psychology. 2017; 85(5):434-446 (ISSN: 1939-2117)   
21. Lydia DeFlorio, Alice Klein, Prentice Starkey, Paul R. Swank, Heather Taylor, Simone E. Halliday, Amber Beliakoff, and Christina Mulchahy. A Study of the Developing Relations Between Self-Regulation and Mathematical Knowledge in the Context of an Early Math Intervention. (submitted).   
22. Mulcahey, MJ., Calhoun Thielen, C., Sadowsky, C., Silvestra, MS., Martin, R., White, L., Cagney, J.A., Vogel, L., Schottler, J., Davidson, L., Parry, I., Taylor, H., Higgins, K., Feltz, M., Bultman, J., Mazurkiewicz, J., Gaughan, J. Despite Limitations, the SCIM-III is Reproducible and a Valid Indicator of Physical Function in Youths with Spinal Cord Injury. (submitted)   
  
Presentations from last 5 years:   
  
1. Taylor, H.B., Robinson-Whelen, S, Hughes, R., Nosek, M. (2012). Pain and Women with Spinal Cord Injury, Multiple Sclerosis, Joint Connective Tissue Disorders and other Physical Disabilities. American Congress for Rehabilitation Medicine, Vancouver, Canada.   
  
2. Taylor, H.B., Barnes, M., Landry, S., & Swank, P.R. (2012). Motor Contingency Learning in Infants with Spina Bifida. Howard H. Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Orlando, Florida.   
  
3. Watson, E., Ardolino, E., Taylor, H.B., Kern, M., Cavadini, N., D'Urso, D., Behrman, A.L., (2012). Locomotor Training Effects On Functional Mobility, Health, And Emotional Well-Being In Three Adolescents With Incomplete Spinal Cord Injuries—A Case Series. Howard Steel Conference, Orlando, Florida.   
  
4. Taylor, H.B., Robinson-Whelen, S., Hughes, R.B., Wenzel, L., Nosek, M.A., (2013). Examining the MHI-5 as a Depression Screening Measure. ACRM 90th Annual Conference, Orlando, Florida.   
  
5. Taylor, H.B., Robinson-Whelen, S., Hughes, R.B., Wenzel, L., Nosek, M.A., (2013). Depression and Depression Treatment of Women with Spinal Cord Injury: Are We Doing Enough? 40th American Spinal Injury Association, Chicago, IL.   
  
6. Taylor, H.B., Robinson-Whelen, S., Feltz, M., Swank, P.R. (2014). Measurement of Quality of Life Following Spinal Cord Injury. 41th American Spinal Injury Association, San Antonio, TX.   
  
7. Wenzel, L., Taylor, H.B. (2014). Evaluating the Diagnosis of Urinary Tract Infections (UTI) in SCI Patients. 41th American Spinal Injury Association, San Antonio, TX.   
  
8. Wenzel, L., Taylor, H.B. (2014). Hospital Acquired UTI in Patients with SCI: Description and Considerations. 41th American Spinal Injury Association, San Antonio, TX.   
  
9. Hammill, H., Wenzel, L., Taylor, H.B. (2014). Obstetrical Management of A Spinal Cord Injury Patient Cohort. 41th American Spinal Injury Association, San Antonio, TX.   
  
10. Zebracki, K., Taylor, H.B., Kelly, E., Russel, H., Augutis, M. (2015). The Transition from Pediatric to Adult Care [in Spinal Cord Injury]: Key Elements and Challenges. Joint 42nd American Spinal Injury Association/ISCoS, Montreal, CA.   
  
11. Robinson-Whelen, S., Taylor, H.B., Hughes, R.B., Nosek, M. (2016) Enhancing Self-esteem in Women with SCI: Testing the Feasibility of a Virtual-Reality Intervention Program, Presented at the 93rd Annual Conference of the American Congress for Rehabilitation Research, Chicago, IL   
  
12. Denton, C., Tamm, L., Schatsneider, C., Epstein, J., Arnold, L.E., Taylor, H. (2016). Effects of ADHD Treatment and Intensive Reading Instruction for Children with Comorbid ADHD and Significant Word Reading Difficulties, 45th Annual International Neuropsychological Society, Boston, MA.   
  
13. Carson, C. S., Ross, E., Williams, J. M., Taylor, H., Tallavajhula, S., & Struchen, M. A. (November, 2016). Sleep problems in acute spinal cord injury rehabilitation. Presented at the 93rd Annual Conference of the American Congress of Rehabilitation Medicine, Chicago, IL.   
  
14. Taylor, H.B., Fruge, E., Herron, C., and Eckert, S. (Sept 2017). Characterizing Arts in Medicine Performances and the Impact on Audience Engagement and Mood at a Children’s Cancer Center. Symposium accepted for presentation at the National Organization for Arts in Health: 30th Annual Healthcare Facilities Symposium and Expo, Austin Texas   
  
15. Taylor, H.B., Fletcher, S., Beers, L., and Nosek, M. (October 2017). Women With Disabilities and Pelvic Health: Overcoming Barriers to Health Education Using a Webinar Series. Symposium accepted for presentation at the 94th Annual Conference of the American Congress of Rehabilitation Medicine, Atlanta, GA.   
  
16. Silveira, S. L., Robinson-Whelen, S., & Taylor, H. (2017, October). Self-Report Weight Status and Weight Loss Efforts in Spinal Cord Injury Model Systems Participants. Abstract accepted for presentation at American Congress of Rehabilitation Medicine Annual Meeting, Atlanta, GA.   
  
17. Robinson-Whelen, S., Hughes, R. B., Taylor, H. B., Markley, R., Vega, J., & Nosek, M. A. (2017, November). Promoting Psychological Health Using the Online Virtual World of Second Life. Abstract accepted for presentation at the Texas Psychological Association Annual Convention, Houston, TX.

**55**

**SCI-HIGH: Moving Best Practices with Indicator Implementation for Individuals with Spinal Cord Injury during Rehabilitation Care and in the Community**

Wednesday, May 02, 2018 01:45 PM - 03:15 PM

***Catharine Craven, MD, FRCP***  
University of Toronto

**CV:**  
  
Name Position Title   
Beverley Catharine (Cathy) Craven   
Physiatrist, Medical Lead, Spinal Cord Rehabilitation Program   
Senior Scientist, Neural Engineering & Therapeutics Team, Toronto Rehab - UHN   
Associate Professor, Dept. of Medicine, Division of PM&R, University of Toronto   
  
Education/Training   
  
York University BA 1989 Physical Education   
McMaster University MD 1994 Medicine   
McMaster University FRCPC 1998 Physiatry   
University of Toronto MSc 2007 Clinical Epidemiology   
  
  
A. Personal Statement   
  
My passions for applied physiology, care of the “whole person” with SCI, and belief in the value and effectiveness of interprofessional care have influenced my career directions and choice of research activities. My formal education has included a BA in Physical Education from York University; undergraduate medical and postgraduate specialty training in Physiatry at McMaster University; and, a Clinical Scholar year in SCI, followed by a Master’s degree in Clinical Epidemiology at the University of Toronto. My initial career focus was on describing changes in lower extremity bone mass and bone quality after SCI. My subsequent efforts and publications have aimed to help the field identify individuals with SCI, low bone mass, and high fracture risk who require therapy. This led to systematic reviews describing, and intervention studies determining, which therapeutic interventions are effective for treatment of sublesional osteoporosis. Concurrent advances in bone physiology, the muscle-bone unit and Wnt signaling, led to my conduct as Primary Investigator of intervention studies evaluating the efficacy of medical therapy (RCT - oral risedronate), and rehabilitation therapies (proof of principle - standing and whole body vibration) for augmenting lower extremity bone mass and reducing fracture risk. Over time, I have become fascinated by the related fates of bone, muscle and adipose tissue after SCI, and their roles in precipitating secondary health conditions. These tissue changes include: declines in hip and knee region bone quality; reductions in muscle density and increased Type IIb fibers; and, increases in abdominal, visceral and intramuscular fat. These events combine to directly or indirectly precipitate distal femur fracture, pressure sores, a pro-inflammatory state, cardiometabolic syndrome, and cardiovascular disease. My most recent primary and collaborative research has focused on preservation of tissue, and optimization of residual tissue function through application of medical and neurorehabilitation strategies to prevent or ameliorate fractures, heart disease and pressure sores. In addition, I have worked to advance future SCI health service delivery through leadership in the conception, design, and implementation of the 1st-7th National SCI Conference (www.sciconference.ca) and publication of the first Atlas of Canadian SCI Rehabilitation (www.idapt.com/research/e-scan).   
  
  
B. Positions/Honors   
  
05/16 Clinician Award and Leader Award University Health Network Prize / Award   
06/16 Member, Division Research Leads Committee, Dept of Medicine, University of Toronto   
08/15 Chair, Care Advisory Committee, Rick Hansen Institute   
04/15 Senior Scientist, Neural Engineering and Therapeutics Team Toronto Rehabilitation Institute   
09/15 Member, Division of PM&R Executive Committee, Research Portfolio, University of Toronto   
04/15 Member, Division of Physical Medicine and Rehabilitation Strategic Planning Oversight   
Committee, University of Toronto   
07/14 Associate Professor, Division of Physiatry, Dept. of Medicine, University of Toronto.   
10/14 Education Category Award Winner: 2nd Place, 6th National SCI Conference Prize / Award   
05/13 Division of Physiatry Achievement Award, University of Toronto Distinction   
07/14 Medical Lead, Brain and Spinal Cord Rehabilitation Program, UHN - Toronto Rehab   
Institute   
01/14 Member, Affiliate Scientist Appointment Committee, Toronto Rehabilitation Institute   
12/14 Member, International SCI Fracture History Extended Data Set Working Group (ISCOS)   
12/14 Member, International SCI Endocrine and Metabolic Extended Data Set Working Group,   
(ISCOS)   
01/16-present Adjunct Associate Professor Kinesiology, University of Waterloo   
01/11-present Active Medical Staff, Dept of Physical Medicine & Rehabilitation UHN   
06/11 Innovator of the Year Award University of Toronto Distinction   
01/11-present Physiatrist, Spinal Cord Rehabilitation Program Toronto Rehabilitation Institute   
  
  
C. Contribution to Science   
Publications   
• Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC.(2017). Agreement between fragility fracture risk assessment algorithms as applied to adults With chronic spinal cord injury. Spinal Cord. DOI: 10.1038/sc.2017.65.   
• Craven BC, Giangregorio LM, Alavinia SM, Blencowe LA, Desai N, Hitzig SL, Masani K, Popovic MR. (2017) Evaluating the efficacy of functional electrical stimulation therapy assisted walking after chronic motor incomplete spinal cord injury: effects on bone biomarkers and bone strength. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1368961.   
• Shojaei MH, Alaviniaa SM, Craven BC. Management of obesity after spinal cord injury: a systematic review. (2017). J Spinal Cord Med. DOI: 10.1080/10790268.2017.1370207.   
• Furlan JC, Gulasingam S, Craven BC. (2017).The Health Economics of the spinal cord injury or disease among veterans of war: A systematic review. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1368267.   
• Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. (2017) Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1369216.   
• Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio LM, Craven BC.(2017).The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1369248.   
• Rivers CS, Fallah N, Noonan VK, Whitehurst DG, Schwartz CE, Finkelstein JA, Craven BC, Ethans K, O'Connell C, Truchon BC, Ho C, Linassi AG, Short C, Tsai E, Drew B, Ahn H, Dvorak MF, Paquet J, Fehlings MG, Noreau L; RHSCIR Network. (2017). Health Conditions: Effect on Function, Health-Related Quality of Life, and Life Satisfaction After Traumatic Spinal Cord Injury. A Prospective Observational Registry Cohort Study. Arch Phys Med Rehabil. DOI: 10.1016/j.apmr.2017.06.012.   
• Moore CD, Craven BC, Thabane L, Papaioannou A, Adachi JD, Giangregorio LM. (2017) Does Muscle Atrophy and Fatty Infiltration Plateau or Persist in Chronic Spinal Cord Injury? J Clin Densitom. DOI: 10.1016/j.jocd.2017.06.001.   
• Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe DL, Craven BC. (2017). Rehabilitation Interventions to modify endocrine-metabolic disease risk in Individuals with chronic Spinal cord injury living in the Community (RIISC): A systematic review and scoping perspective. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1350341.   
• Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC. (2017). Agreement between fragility fracture risk assessment algorithms as applied to adults With chronic spinal cord injury. Spinal Cord. DOI: 10.1038/sc.2017.65.   
• Gibbs JC, Brown ZM, Wong AKO, Craven BC, Adachi JD, Giangregorio LM. (2017). Measuring Marrow Density and Area Using Peripheral Quantitative Computed Tomography at the Tibia: Precision in Young and Older Adults and Individuals With Spinal Cord Injury. Journal of Clinical Densitometry. S1094-6950(16): 30258-X.   
• Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe D, Craven BC. (2017). Rehabilitation Interventions to modify endocrine-metabolic disease risk in Individuals with chronic Spinal cord injury living in the Community (RIISC): A systematic review and scoping perspective. The Journal of Spinal Cord Medicine. DOI: 10.1080/10790268.2017.1350341.   
• Singh H, Shah M, Flett HM, Craven BC, Verrier MC, Musselman KE,. (2017). Perspective of individuals with sub-acute spinal cord injury after personalized adapted locomotor training. Disability and Rehabilitation. DOI: 10.1080/09638288.   
• Hoskin JD, Miyatani M, Craven BC. (2017). Quality reporting of carotid intima-media thickness methodology; Current state of the science in the field of spinal cord injury. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Miyatani M, Alavinia SM, Szeto M, Moore C, Craven BC. (2017). Association between Abnormal Arterial Stiffness and Cardiovascular Risk Factors in People with Chronic Spinal Cord Injury. European Journal of Preventive Cardiology. 24(5): 552-558.   
• Furlan JC, Craven BC, Massicotte EM, Fehlings MG.(2016). Early versus Delayed Surgical Decompression of Spinal Cord after Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. World Neurosurg. 88(1878-8750): 166-174.   
• Best K, Ethans K, Craven BC, Noreau L, Hitzig SL. (2016). Identifying and classifying quality of life tools for neurogenic bladder function after spinal cord injury: A systematic review. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Giangregorio LM, Gibbs JC, Craven BC.(2016). Measuring muscle and bone in individuals with neurologic impairment; lessons learned about participant selection and pQCT scan acquisition and analysis.Osteoporos Int. 27(8): 2433-46.   
• Furlan JC, Craven BC. (2016). Psychometric analysis and critical appraisal of the original, revised and modified versions of the Japanese Orthopaedic Association Score in the assessment of patients with cervical spondylotic myelopathy. Neurosurg Focus. 40(6): E6.   
• Guy SD, Mehta S, Casalino A, Côté I, Kras-Dupuis A, Moulin DE, Parrent AG, Potter P, Short C, Teasell R, Bradbury CL, Bryce TN, Craven BC, Finnerup NB, Harvey D, Hitzig SL, Lau B, Middleton JW, O’Connell C, Orenczuk S, Siddall PJ, Townson A, Truchon C, Widerström-Noga E, Wolfe D, Loh E. (2016). The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Treatment. J Spinal Cord Med. 54(1): S14-S23.   
• Guy SD, Mehta S, Harvey D, Lau B, Middleton JW, O'Connell C, Townson A, Truchon C, Wolfe D, Bradbury CL, Bryce TN, Casalino A, Côté I, Craven BC, Finnerup NB, Hitzig SL, Kras-Dupuis A, Moulin DE, Orenczuk S, Parrent AG, Potter P, Siddall PJ, Short C, Teasell R, Widerström-Noga E, Loh E.(2016). The CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Model Systems of Care. J Spinal Cord Med. 54(1): S24-S7.   
• Furlan JC, Craven BC, Fehlings MG.(2016). Surgical Management of The Elderly with Traumatic Cervical Spinal Cord Injury: A Cost Utility Analysis. Neurosurgery. 79(6): 418-25.   
• Mehta S, Guy SD, Bryce TN, Craven BC, Finnerup NB, Hitzig SL, Orenczuk S, Siddall PJ, Widerström-Noga E, Casalino A, Côté I, Harvey D, Kras-Dupuis A, Lau B, Middleton JW,   
• Moulin DE, O'Connell C, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Wolfe D, Bradbury CL, Loh E.(2016). The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Screening and Diagnosis Recommendations. J Spinal Cord Med. 54(1): S7-S13.   
• Chopra A, Miyatani M, Craven BC.(2016). Cardiovascular disease risk in individuals with chronic spinal cord injury: Prevalence of untreated risk factors and poor adherence to treatment guidelines. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Gagnon DH, Roy A, Verrier MC, Duclos C, Craven BC, Nadeau S. (2016). Do Performance-Based Wheelchair Propulsion Test Detect Changes Among Manual Wheelchair Users with Spinal Cord Injury during Inpatient Rehabilitation in Quebec?. Arch Phys Med Rehabil. 97(7): 1214-1218.   
• Krassioukov A, Tomasone JR, Pak M, Craven BC, Ghotbi MH, Ethans K, Martin Ginis KA, Ford M, Krassioukov-Enns D.(2016). "The ABCs of AD”: A Prospective Evaluation of the Efficacy of an Educational Intervention to Increase Knowledge of Autonomic Dysreflexia Management Among Emergency Health Care Professionals. J Spinal Cord Med.39(2): 190-196.   
  
D. Research Support   
  
11/15-11/20 Co-Investigator. Physiological Flow of Liquids Used in Dysphagia Management. National   
Institutes of Health (NIH). PI: Steele, CM. $2,576,130 USD.   
02/15-12/19 Co-Investigator. A wearable sensor for monitoring hand function at home. Rick Hansen   
Institute (RHI). PI: Zariffa, J. $75,000 CAD.   
09/16-09/19 Principal Investigator: Statin monotherapy for treatment of endocrine metabolic disease risk.   
Craig H. Neilson Foundation. PI: Craven BC. $560,944USD   
05/16-06/19 Co-Investigator. Preventing Falls One Step at a Time: Reactive Balance Training for Spinal   
Cord Injury. ONF-RHI. PI: Musselman, K. $149,866 CAD.   
03/17-05/19 Co-Principal Investigator. Rehabilitation Interventions for Individuals with SCI in the   
Community (RIISC). Ontario Neurotrauma Foundation (ONF). PI: Craven BC, Gagnon D.   
$200,000 CAD.   
01/13-06/18 Site Investigator. AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers. Ontario   
Neurotrauma Foundation (ONF). Directed Funding Initiative: VNI-ONF-Western Australia   
Colla. 634388. PI: Stacey M, Swaine J, Hayes K. $258,478 CAD.   
03/15-01/18 Co-Principal Investigator. Spinal Cord Injury (SCI) Care Indicators in Rehabilitation Project   
(SCI-HIGH). Rick Hansen Institute. PI: Craven BC, Bayley M. $ 275,000 CAD.   
04/16-04/17 Co-Investigator. Implementation Considerations for a SCI Caregiver Support Program. Craig   
H. Neilson Foundation (CHNF). PI: Jaglal SB. $96,578 USD.   
03/15-03/17 Co-Investigator. Development of a Patient Reported Outcome for Bowel Dysfunction   
following Spinal Cord Injury. Rick Hansen Institute (RHI). PI: Burns, AS. $75,000 CAD.   
09/12-11/16 Co-Investigator. Improving Cardiovascular Health for Canadians with Spinal Cord Injury:   
Effects of Exercise and Targeted Education (CHOICES). Canadian Institutes of Health   
(CIHR). PI: Krassioukov, A. $1,832,351 CAD.   
02/16-09/16 Principal Investigator. ONF-REPAR Phase III: Rehabilitation-based Research and   
Knowledge Translation Activities to Modify Health Risks for Individuals Living with Chronic   
Spinal Cord Injury. Ontario Neurotrauma Foundation (ONF)/REPAR. PI: Craven BC,   
Gagnon D. $60,000 CAD.   
10/15-09/16 Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury   
Solutions Network Grant. Rick Hansen Institute. PI: Craven, BC. $120,000 CAD.   
04/14-04/16 Co-Investigator. Bone fragility in boys with Duchenne muscular dystrophy. Physicians   
Services Incorporated Foundation (PSI). PI: Ward, L. $170,000 CAD.   
01/12-01/16 Co-Investigator. NRN Development Grant. Ontario Neurotrauma Foundation (ONF). PI:   
Musselman, K. $740,000 CAD.   
01/11-12/15 Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. Rick   
Hansen Institute. PI: Craven, BC. $30,000 CAD.

***Mohammad Alavinia, MD, PhD***  
University Health Network

**CV:**  
Biographic Sketch   
  
Name: Mohammad Alavinia, M.d. Ph.D.   
  
Position Title: Postdoctoral Research Fellow, University Health Network(UHN)/ Toronto Rehab/Lyndhurst Centre   
  
A. Personal Statement:   
  
As a postdoctoral research fellow at University Health Network (UHN) affiliated with the University of Toronto, I have focused largely on the secondary health complications among individuals with Spinal Cord Injury (SCI). In my current project called “Spinal Cord Injury Rehabilitation Care - High-Performance Indicators (SCI-HIGH)”, I am working on creating and implementing rehabilitation care indicators to advance rehab care among SCI individuals. This project is essentially about measuring the adherence to best practices (i.e., developing tools to measure knowledge uptake). Implementing the indicators requires a knowledge translation and implementation process. In this project, the target audience will be clinicians and decision makers in inpatient rehabilitation centres across Canada. SCI-HIGH represents a unique opportunity to align existing SCI rehabilitation community resources to advance the rehabilitation care of individuals with SCI through the establishment of common goals, and benchmarks for goal attainment. This project is a mixture of qualitative and quantitative research methods. I also have conducted a successful quality improvement process in the rehab center in order to eliminate Urinary Tract Infection among inpatients SCI individuals. The result of this quality improvement process was published in Journal of Spinal Cord Medicine.   
In my previous position as an Assistant Professor of Epidemiology and the director of the Diabetes Office at Non-communicable Disease Control Center at Ministry of Health, I have worked on different research projects, mainly in health policy making for diabetic patients. I published the results of diabetes care in a peer-reviewed journal.   
  
B. Position and Honor   
  
2015 - Present Postdoctoral Research Fellow, University Health Network(UHN)/ Toronto Rehab/Lyndhurst Centre   
10/2014 - 06/2015 Scientific Associate II, University Health Network (UHN) /Toronto Rehab/Lyndhurst Centre   
05/2014 – 04/2015 Research Assistant, Institute for Work and Health (IWH), Toronto Ontario,   
2010 - 2013 Assistant Professor, Faculty of Medicine, North Khorasan University of Medical Sciences, North Khorasan, Iran   
2010 - 2013 Director, Endocrine & Metabolic Diseases Office, Center for Non-Communicable Diseases Control, Ministry of Health and Medical Education, Tehran, Iran   
2009-2011 Assistant Professor, Faculty of Medicine, North Khorasan University of Medical Sciences, North Khorasan, Iran,   
2008 - 2013 Assistant Professor, School of Nursing, North Khorasan University of Medical Sciences, North Khorasan, Iran   
2006 – 2008 Teaching Assistant MSc, Erasmus –mc University- Department of Public Health, Rotterdam, the Netherlands   
2001 - 2004 Visiting Lecturer, Faculty of Health, Sabzevar University of Medical Sciences, Sabzevar, Iran   
  
Awards   
  
2010 Outstanding Medical Sciences Researcher’s Prize (Awarded in the anniversary celebration of Research Week, North Khorasan University of Medical Science) - Distinction   
2003 A Ph.D. Scholarship Awarded by Ministry of Health and Medical Education of Iran   
2000 Outstanding Director’s Prize, Awarded by Blood Transfusion Organization, Mashad University of Medical Sciences, Iran - Distinction   
1991   
Outstanding physician of Family Planning Program by Vasectomy without Scalpel (NSV) Method, Ministry of Health and Medical Education, Tehran, Iran - Distinction   
  
C. Education & Degrees   
  
2004 - 2008 Ph.D., Clinical Epidemiology, Erasmus-mc University, Rotterdam, the Netherlands,   
2005- 2006 DSc, Clinical Epidemiology, Erasmus-mc University, Rotterdam, the Netherlands   
  
2004- 2005 MSc, Clinical Epidemiology, Netherlands Institute for Health Sciences, Rotterdam, the Netherlands.   
1997-2000 MPH, Occupational Health, Tehran University of Medical Sciences, Tehran, Iran.   
1985 - 1992 Doctorate of Medicine (MD), Iran University of Medical Sciences, Tehran, Iran   
  
D. Contribution to Science   
  
1. Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. Seyed Mohammad Alavinia, Maryam Omidvar, Farnoosh Farahani, Mark Bayley, Joana Zee & Beverley Catharine Craven. The Journal of Spinal Cord Medicine. DOI: 10.1080/10790268.2017.1369216doi. Epub.   
  
2. Predictors of discharge destination from acute care in patients with traumatic brain injury. Zarshenas S, Tam L, Colantonio A, Alavinia SM, Cullen N. BMJ Open. 2017 Aug 31; 7(8):e016694. doi: 10.1136/bmjopen-2017-016694.   
  
3. Intestinal Helminths in Different Species of Rodents in North Khorasan Province, Northeast of Iran. Arzamani K, Salehi M, Mobedi, Adinezade A, Hasanpour H, Alavinia M, Darvish J, Shirzadi MR, Mohammadi Z. Iran J Parasitol. 2017 Apr-Jun; 12(2): 267-273. PMID: 28761488. Impact factor: 1.10.   
  
4. Association between abnormal arterial stiffness and cardiovascular risk factors in people with chronic spinal cord injury. Miyatani M, Alavinia SM, Szeto M, Moore C, Craven BC. Eur J Prev Cardiol. 2017 Jan 1:2047487316687426. PMID: 28117618 [Epub ahead of print], Impact factor: 2.638.   
  
5. A systematic review of interventions to promote work participation in older workers. Steenstra I, Cullen K, Irvin E, Van Eerd D; IWH Older Worker Research team. J Safety Res. 2017 Feb; 60:93-102. doi: 10.1016/j.jsr.2016.12.004. Epub 2016 Dec 21. (Coauthor & A member of IWH Research Team)   
  
6. Injuries and their burden in insured construction workers in Iran, 2012. Hatami SE, Khanjani N, Alavinia SM, Ravandi MR. Int J Inj Contr Saf Promot. 2016 Jan 20:1-8. [Epub ahead of print]. PMID: 26787067. Impact factor: 1.047   
  
7. Linking medical faculty stress/burnout to willingness to implement medical school curriculum change: a preliminary investigation. Arvandi Z, Emami A, Zarghi N, Alavinia SM, Shirazi M, Parikh SV. J Eval Clin Pract. 2015 Nov 13. doi: 10.1111/jep.12439. [Epub ahead of print], PMID: 26563562.   
  
8. The effects of intervention based on supportive leadership behaviour on Iranian nursing leadership performance: a randomized controlled trial. Shirazi M, Emami AH, Mirmoosavi SJ, Alavinia SM, Zamanian H, Fathollahbeigi F, Masiello I. J Nurs Manag. 2016 Apr; 24(3):400-8. doi: 10.1111/jonm.12335. Epub 2015 Sep 29. PMID: 26416084. Impact factor: 1.721.   
  
9. Contextualization and standardization of the supportive leadership behavior questionnaire based on socio- cognitive theory in Iran. Shirazi M, Emami AH, Mirmoosavi SJ, Alavinia SM, Zamanian H, Fathollahbeigi F, Masiello I. Med J Islam Repub Iran. 2014 Nov 8; 28: 125. eCollection 2014. PMID: 25679004.   
  
10. Effect of ginger (Zingiber officinale) on heavy menstrual bleeding: a placebo-controlled, randomized clinical trial. Kashefi F, Khajehei M, Alavinia SM, Golmakani E, Asili J. Phytother Res. 2015 Jan;29(1):114-9. doi: 10.1002/ptr.5235. Epub 2014 Oct 8. PMID: 25298352. Impact factor: 2.694.   
  
11. Comparison of the effect of ginger and zinc sulfate on the primary dysmenorrhea: A placebo-controlled randomized trial. Kashefi F, Asili M, Alavinia SM: Pain Management Nursing. 2014 Dec; 15(4):826-33. doi: 10.1016/j.pmn.2013.09.001. Epub 2014 Feb 20. Impact factor: 1.134.   
  
12. The effect of Gabapentin on methadone based addiction treatment-A randomized control trial. Mohsen Saber Moghadam, Mohammad Alavinia. Pak. J. Pharm. Sci. Vol 26- No 5- September 2013- page: 985-989. Impact factor: 1.103.   
  
13. The effect of seeing a family physician on the level of glycosylated hemoglobin (HbA1c) in type 2 Diabetes Mellitus patients. Ali Reza Mahdavi, Koorosh Etemad, Muhiuddin Haider, Seyed Mohammad Alavinia. Journal of Diabetes & Metabolic Disorders, 2013, 12:2. Impact factor: 0.32.   
  
14. An overview and mapping of childhood tuberculosis: prevalence, scientific production, and citation analysis. Mohammad Alavinia, Ali Khakshoor, Gholamreza Habibi, Navabi B, Seyed Abolfazl Mostafavi and Mohsen Saber Moghadam. Indian J Tuberc, 2013 Jan;60(1):28-36. Impact factor: 0.59.   
  
PUBLISHED ABSTRACTS   
  
1. Comparing the Cost of New and Old Technology for Lower Extremity BMD Assessment among Individuals with Spinal Cord Injury: p-QCT versus DXA. Craven BC, Alavinia SM, Giangregorio LM, Mittmann N. Journal of Clinical Densitometry. (2016). 19(4):530-531, (Coauthor)   
  
International Conference Presentations and Posters   
  
April 2016 Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) During Spinal Cord Injury (SCI) Rehabilitation, PRAXIS Conference, Vancouver, Canada, (Poster Presentation)   
  
April 2016   
The SCI-HIGH (Spinal Cord Injury High-Performance Indicators) Process for Advancing SCI Rehabilitation Care by 2020. PRAXIS Conference, Vancouver, Canada, (Poster Presentation)   
April 2016 Establishing Indicators for Optimal Spinal Cord Injury Care - Phase One: Prioritization of Rehabilitation Domains. American Spinal Injury Association, 2016 Annual Scientific Meeting, Philadelphia, USA, (Oral Presentation)   
March 2012   
The Education Environment of TUMS Pharmacy School: A DREEM (Dundee Ready Education Environment Measure Questionnaire). Assessment of Competence in Medicine and the Health Care Professions, 15th Ottawa conference, Kuala Lumpur, Malaysia, (Oral Presentation)   
March 2012   
Assessing the validation of supportive leadership behavior (SLB) tool for Iranian medical education leaders: Factor analysis. Assessment of Competence in Medicine and the Health Care Professions, 15th Ottawa conference, Kuala Lumpur, Malaysia, (Oral Presentation)   
June 2011   
  
Students' perception about Logbooks: advantages, limitation, and recommendation- a qualitative study. 1st global congress for qualitative health research-Ewha Woman's University – Seoul – South Korea, (Oral Presentation)

***Heather Flett, MSc, BScPT***  
University Health Network

**CV:**  
Heather Flett   
Advanced Practice Leader   
  
Education/Training   
Institution and Location Degree   
(if applicable) Year(s)   
(mm/yy) Field of Study   
University of Toronto BScPT 1994-98 Physiotherapy   
University of Toronto MSc 2004-09 Rehabilitation Science   
University of Western Ontario BA (Kin) 1990-94 Kinesiology   
  
Current Duties   
In the Advanced Practice Leader role in Spinal Cord Rehabilitation, I provide clinical leadership to the inter-professional team to support the implementation of best practices. My role includes clinical consultation, education, research and leadership. A key aspect of my role is the integration of research and clinical practice, creating opportunities for collaboration, alignment and knowledge sharing between the clinicians and researchers within our Spinal Cord Rehab Program. My specific duties include leadership of best practice implementation and patient safety projects in the areas of fall prevention, pressure ulcer prevention and management, patient self-management and transition planning. I am currently a Toronto site lead for the SCI Knowledge Mobilization Network. I have a broad range of academic interests all within the field of spinal cord rehabilitation including walking outcomes, pressure ulcer prevention and treatment. Within our clinical Spinal Cord Rehab program, I provide leadership of our Spinal Cord Rehab Quality Council and our Spinal Cord Rehab Skin Health Committee. I also represent our program at the broader Toronto Rehabilitation and UHN Skin Health Committees which have organizational oversight regarding pressure ulcer prevention and management.   
  
Personal Statement   
  
I have over 19 years of experience within the field of spinal cord rehabilitation including 8 years as an inpatient physical therapist in spinal cord rehab and graduate studies in rehabilitation science with a focus on walking outcomes following incomplete SCI. I have been a co-investigator in numerous research projects in the area of spinal cord rehab and bring forward clinical perspective and knowledge translation strategies. I have significant knowledge and insight into pressure ulcer prevention risk assessment, prevention strategies and incidents that occur within our rehab setting and have presented this work both internally and externally most recently at the International Spinal Cord Society (ISCoS) Conference in Vienna.   
  
  
Date(s)   
(mm/yy-mm/yy) Positions/Honors   
  
05/06 – present - Advanced Practice Leader, Spinal Cord Rehabilitation, Toronto Rehabilitation Institute,   
University Health Network   
  
11/07 – present - Lecturer, Department of Physical Therapy, Faculty of Medicine, University of Toronto   
  
06/13 – 02/14 - Acting Clinical Manager, Spinal Cord Rehabilitation, Toronto Rehabilitation Institute,   
University Health Network   
  
05/01 – 05/06 - Program Practice Leader, Physiotherapy, Spinal Cord Rehabilitation, Toronto   
Rehabilitation Institute   
  
05/98 – 05/06 - Inpatient Physiotherapist, Spinal Cord Rehabilitation, Toronto Rehabilitation Institute   
  
Date(s)   
(mm/yy) Selected Peer-Reviewed Publications   
09/16 – Chan K, Guy K, Shah G, Golla J, Flett HM, Williams J and Musselman KE. Retrospective assessment of the validity and use of the Community Balance and Mobility Scale among individuals with subacute spinal cord injury   
  
11/15 - Delparte J.J, Scovil C.Y, Flett H.M, Higgins J, Laramee M.T, Burns A.S. Psychometric Properties of the Spinal Cord Injury Pressure Ulcer Scale (SCIPUS) for Pressure Ulcer Risk Assessment During Inpatient   
Rehabilitation. Archives of Physical Medicine and Rehabilitation. 96: 1980-5.   
  
09/14 - Scovil CY, Flett HM, McMillan LT, Delparte JJ, Leber DJ, Brown J, Burns AS, on behalf of the Spinal Cord Injury Knowledge Mobilization Network (SCI KMN). (2014). (2014). The application of implementation science for pressure ulcer prevention best practices in. Journal of Spinal Cord Medicine.37(5): 589-97.   
  
09/14 – Gabision S, Verrier MC, Nadeau S, Gagnon D, Roy A, Flett HM. (2014). Trunk Strenght and function using the multidirectional reach distance in individuals with non-traumatic spinal cord injury. Journal of Spinal Cord Medicine. 37(5): 537-547.   
  
09/14 – Balioussis C, Hitzig S, Flett HM, Noreau L, Craven C. (2014). Identifying and Classifying Quality of   
Life Tools for Assessing Spasticity After Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation.   
20(3): 2008-224.   
  
04/13 – Nussbaum EL, Flett H, Hitzig S, McGillivray C, Leber D, Morris H, Jing F (2013). Ultraviolet-C Irradiation in the Management of Pressure Ulcers in People with Spinal Cord Injury: A Randomized Placebo Control Trial. Archives of Physical Medicine & Rehabilitation. 94(4):650-9, 2013 Apr.   
  
02/13 - A S Burns, J Yee, H M Flett, K Guy and N Cournoyea. (2013). Impact of benchmarking and clinical   
decision making tools on rehabilitation, length of stay following spinal cord injury. Spinal Cord. 51:165-169.   
  
09/12 - Marinho AR, Flett HM, Craven BC, Ottensmeyer CA, Parsons D, Verrier MC. (2012). Walking-related   
outcomes for individuals with traumatic and non-traumatic spinal cord injury inform physical therapy   
practice.Journal of Spinal Cord Medicine. 35(5): 371-381.   
  
10/12 - Hsieh J, Wolfe D, Nussbaum D, Flett HM, Craven BC. (2012). Skin Integrity Chapter. Rick Hansen   
Institute. Rehabilitation Environmental Scan Atlas: Capturing Capacity in Canadian SCI Rehabilitation. :   
85-92. Published, Rick Hansen Institute, Canada   
  
10/12 Verrier MC, Flett HM, Guy K, Nadeau S. (2012). Walking Chapter. Rick Hansen Institute. Rehabilitation   
Environmental Scan Atlas: Capturing Capacity in Canadian SCI Rehabilitation. : 47-52. Published, Rick Hansen Institute, Canada   
  
02/12 - Burns AS, Marino RJ, Kramer J, Flett H, Flanders A, Curt A.. (2012). Predicting outcome following   
traumatic spinal cord injury. In: , 2nd edition, pp 129-135.. Kirshblum S, Campagnolo DI, Gorman PH,   
Heary RF, Nash MS. Spinal Cord Medicine. 2: 129-135. Published, Lippincott Williams and Wilkens, US   
  
10/12 - Burns, Anthony S; Marino, Ralph J; Flanders, Adam E; Flett, Heather Clinical diagnosis and prognosis following spinal cord injury. [Review], Handbook of Clinical Neurology. 109:47-62, 2012   
  
10/06 - Thrasher, T.A., Flett, H.M., Popovic, M.R. Gait Training Regimen for Incomplete Spinal Cord Injury Using Functional Electrical Stimulation. Spinal Cord 2006; 44: 357-361.   
  
Date(s)   
(mm/yy-mm/yy) Research Support   
In reverse chronological order, list your last five years of funding sources (include current funding).   
10/17 – 05/20 Co-investigator Exploring the Causes and Consequences of Falls Across the Continuum of   
Care in Canadians with SCI. PI – Kristin Musselman. Canadian Institute for Health   
Research, $195,075   
08/17 – 08/19 Co-investigator - Validation of the SCI Pressure Sore Onset Risk Screening (SCI-PreSORS)   
PI – Anthony Burns. Craig Neilsen Foundation, $297,660   
10/17 – 10/19 Co-investigator - Exploring the impact of falls on life after spinal cord injury. PI – Kristin   
Musselman. The Craig H. Neilsen Foundation, $199,780   
03/15 – 03/017 Co-investigator - Spinal Cord lnjury Care Indicators in Rehabilitation Project (SCl-HIGH),   
Principal Investigators: Craven BC, Bayley M. Rick Hansen Institute, Funding - $250,000   
04/14 - 04/16 Co-Principal Investigator - SCI Knowledge Mobilization Network, Co-PI – Anthony Burns   
Ontario Neurotrauma Foundation, Funding - $100,000   
01/14 – 01/13 Co-investigator - Neurorecovery Network Clinic, PI – Kristin Musselman, Ontario   
Neurotrauma Foundation, Funding - $268,349   
03/11 – 03/13 Co-Principal Investigator - Best Practice Implementation Project, Co-PI – Anthony Burns   
Ontario Neurotrauma Foundation, Funding - $175,000   
06/10 - 09/15 Co-investigator – Rick Hansen Spinal Cord Injury Registry, PI – Cathy Craven, Rick Hansen   
517,500Institute, Funding - $ 517,500   
03/12 – 03/14 Co-investigator - Best Practice: Implementation and Evaluation of a SCI Specific Risk   
Assessment Measure for the Prevention of Pressure Ulcers, PI – Anthony Burns, AHSC   
AFP Innovation Fund, Funding - $25,476   
12/12 – 04/13 Co-investigator - Neurorecovery Network - Development Grant, PI – MC Verrier, Ontario   
Neurotrauma Foundation, Funding - $80,000

***Farnoosh Farahani, BA, CCRP***  
University Health Network

**CV:**  
Biographic Sketch   
  
Name: Farnoosh Farahani , HBSc, CCRP   
  
Position Title: Clinical Research Coordinator, Toronto Rehab –University Health Network   
  
A. Personal Statement:   
  
As a clinical resarch coordinator with over 10 years of work experince, I have gained considerable training in research and project management working on various types of studies. My experiences working within an acute and rehabilitation hospital setting has provided me with an insight into the healthcare delivery and quality improvement inititavies necessary to optomize patient care and improve outcomes. I am currently managing a national project entitled “Spinal Cord Injury Rehabilitation Care - High-Performance Indicators (SCI-HIGH)”, which focuses on the implementation of rehabilitation care indicators. Through collaboration and knowledge translation of best practices, I will be helping facilitate advancements in rehabilitation care for individuals living with a spinal cord injury.   
  
B. Position and Honor   
  
2014 - Present Clinical Research Coordinator, University Health Network (UHN), Neural Engineering and Therapeutics Team   
2009-2014 Research Associate, Toronto Rehab-Lyndhurst Centre, Neural Engineering and Therapeutics Team   
2008- 2009 Clinical Research Assistant, Women’s College Hospital, Department of Anesthesia   
2007 – 2008 Clinical Research Coordinator Assistant, Allied Research International Inc.   
  
C. Education & Degrees   
  
1999 - 2005 Honors Bachelor of Science, Human Biology Specialist, University of Toronto, Toronto , Canada   
  
2015-Present Project Management, University of Toronto School of Continuing Education   
  
D. Qualifications & Certifications   
  
2014- Present Certified Clinical Research Professional (CCRP), The Society of Clinical Research Associates (SOCRA)   
E. Contribution to Science   
  
Peer-Reviewed Publications   
  
1. Predicting rehabilitation length of stay in Canada: It's not just about impairment. Catharine Craven B, Kurban D, Farahani F, Rivers C, Ho C, Linassi AG, Gagnon D, O'Connell C, Ethans , Bouyer LJ, Noonan VK; RHSCIR Network. The Journal of Spinal Cord Medicine. 2017 Sep 12:1-15. DOI:10.1080/10790268.2017.1368962. [Epub ahead of print]   
  
2. Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. The Journal of Spinal Cord Medicine. Sep 5:1-10. DOI:10.1080/10790268.2017.1369216. [Epub ahead of print]   
  
  
  
Published Abstracts   
  
1. Alavinia M, Farahani F, Flett H, Hitzig S, Bayley M, Craven BC. Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) Among Inpatients during Spinal Cord Injury (SCI) Rehabilitation. 2016 Mar. Coauthor or Collaborator.   
  
2. Alavinia M, Farahani F, Flett H, Hitzig S, Bayley M, Craven BC. Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) in Spinal Cord Injury (SCI) Rehabilitation. 2016 Feb. In Press. Coauthor or Collaborator.   
  
3. Alavinia M, Farahani F, Flett H, Hitzig S, Bayley M, Craven BC. The SCI-High (Spinal Cord Injury High Performance Indicators) process for advancing SCI rehabilitation care by 2020. 2016 Feb. Coauthor or Collaborator.   
  
  
International Conference Presentations and Posters   
  
May 2016 Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) among inpatients during Spinal Cord Injury (SCI) rehabilitation-Innovations influencing rehabilitation. GTA Rehab Network. Toronto, Ontario, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zimcik H, Zee J, Bayley M, Craven BC.   
April 2016 Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) During Spinal Cord Injury (SCI) Rehabilitation, PRAXIS Conference, Vancouver, Canada, Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC.   
April 2016   
The SCI-HIGH (Spinal Cord Injury High-Performance Indicators) Process for Advancing SCI Rehabilitation Care by 2020. PRAXIS Conference, Vancouver, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC.   
April 2016   
  
  
  
June 2014   
  
  
  
  
October 2014   
  
  
  
  
November 2013   
Establishing Indicators for Optimal Spinal Cord Injury Care - Phase One: Prioritization of Rehabilitation Domains. American Spinal Injury Association, 2016 Annual Scientific Meeting, Philadelphia, USA, Alavinia SM, Craven BC, Flett H, Farahani F, Hitzig SL, Bayley M.   
  
Is Self-report of Neurological Impairment Among Persons Living With Chronic Spinal Cord Injury Sufficiently Accurate for Research Studies? CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada. Craven BC, Zeng L, Farahani F, Hitzig SL.   
  
Rehab Interrupted: Frequency, Type And Duration Of Service Interruptions During Inpatient SCI Rehabilitation. Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. Rehab Interrupted: J Spinal Cord Med. 2014. 2014 Mar.   
  
Preliminary face validity of target SCIM III median values for prediction of functional outcome after traumatic SCI. Research Day, Toronto Rehabilitation Institute. Farahani F, Verrier MC, Flett H, Craven C.

***Mark Bayley, MD, FRCPC***  
Division of Physiatry, University of Toronto

**CV:**  
BIOGRAPHICAL SKETCH   
NAME: Mark Theodore Bayley   
eRA COMMONS USER NAME (credential, e.g., agency login):   
POSITION TITLE: Medical Director, Brain and Spinal Cord Rehabilitation Program, UHN- Toronto Rehabilitation Institute and Professor University of Toronto   
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)   
INSTITUTION AND LOCATION DEGREE   
(if applicable)   
Completion Date   
MM/YYYY   
FIELD OF STUDY   
  
Queens University at Kingston, Canada BA 05/88 Chemistry   
Queens University at Kingston, Canada MD 06/88 Medicine   
Division of Physiatry , University of Toronto FRCPC 09/92 Physical Medicine and Rehabilitation   
  
  
  
NOTE: The Biographical Sketch may not exceed five pages. Follow the formats and instructions below.   
A. Personal Statement   
I have experience leading large-scale national and international research and health systems change projects. I am currently the Medical Director and a Clinician Scientist at the Brain and Spinal Cord Rehabilitation Program of the Toronto Rehabilitation Institute part of the University Health Network. My research interests include: Knowledge Translation and Development of Best Practice Guidelines, development of models of care and novel interventions to promote neurological recovery. I have lead large randomized controlled trials including the Stroke Canada Optimization of Rehabilitation by evidence (SCORE), the Getting on with Life after stroke and the EVREST (Efficacy of Virtual Reality Exercises using Wii gaming technology in STroke Rehabilitation). I also have been very interested in implementing evidence at a health system level in the areas of stroke, spinal cord and brain injury using novel strategies such as report cards and smartphone applications. My contribution is focussed on ensuring that indicators are used to measure adherence to best practice guidelines.   
  
Publications (sampling of relevant)   
  
1. Swaine B, Cullen N, Messier F, Bayley M, Lavoie A, Marshall S, Sirois MJ, Turgeon-Fournier A, Lamoureux J, Lam Wai Shun P. Post-acute care referral and inpatient rehabilitation admission criteria for persons with brain injury across two Canadian provinces. Disabil Rehabil. 2016 Dec 15:1-8   
2. Colantonio A, Salehi S, Kristman V, Cassidy JD, Carter A, Vartanian O, Bayley M, Kirsh B, Hébert D, Lewko J, Kubrak O, Mantis S, Vernich L. Return to work after work-related traumatic brain injury. NeuroRehabilitation. 2016 Jun 30.   
3. Saposnik G, Cohen LG, Mamdani M, Pooyania S, Ploughman M, Cheung D, Shaw J, Hall J, Nord P, Dukelow S, Nilanont Y, De Los Rios F, Olmos L, Levin M, Teasell R, Cohen A, Thorpe K, Laupacis A, Bayley M, Stroke Outcomes Research Canada. Efficacy and safety of non-immersive virtual reality exercising in stroke rehabilitation (EVREST): a randomised, multicentre, single-blind, controlled trial. Lancet Neurol. 2016 Jun 27   
4. Hall R, French, E Khan F, O’Callaghan C, Kapral MK, Levy, J Fang J, Bayley M. Ontario Stroke Rehabilitation Evaluation Report 2016:. 2016 Nov. Institute for Clinical Evaluative Sciences, 2016 www.ices.ca.   
5. Hebert D, Lindsay MP, McIntyre A, Kirton A, Rumney PG, Bagg S, Bayley M, Dowlatshahi D, et al. Canadian stroke best practice recommendations: Stroke rehabilitation practice guidelines, update 2015. International Journal of Stroke 2016 Jun 1   
6. Mayo NE, Anderson S, Barclay R, Cameron JI, Desrosiers J, Eng JJ, Huijbregts M, Kagan A, MacKay-Lyons M, Moriello C, Richards CL, Salbach NM, Scott SC, Teasell R, Bayley M. Getting on with the rest of your life following stroke: a randomized trial of a complex intervention aimed at enhancing life participation post stroke. Clinical Rehabilitation. 2015 Dec 1;29(12):1198-211. Senior Responsible Author.   
7. Hall RE, Fang J, Hodwitz K, Saposnik G, Bayley MT. Does the Volume of Ischemic Stroke Admissions Relate to Clinical Outcomes in the Ontario Stroke System? Circ Cardiovasc Qual Outcomes. 2015 Oct 1;8(6 Suppl 3):S141-7. Senior Responsible Author.   
8. Wolf SL, Kwakkel G, Bayley M, McDonnell MN, Upper Extremity Stroke Algorithm Working Group. Best practice for arm recovery post stroke: an international application. Physiotherapy. 2015 Sep 26. Senior Responsible Author.   
9. Swaine, B., M. Bayley, M. E. Lamontagne, A. S. Allaire, C. Kagan, D. Caplan, C. Truchon, M. De Bellefeuille, S. Marshall, A. Kua. Development and adaptation of a Canadian clinical practice guideline for the rehabilitation of adults with moderate-to-severe traumatic brain injury (tbi). Annals of Physical and Rehabilitation Medicine. 2015 Sep; 58:e143-e144. Co-Principal Author.   
10. Krueger H, Koot J, Hall RE, O’Callaghan C, Bayley M, Corbett D. Prevalence of Individuals Experiencing the Effects of Stroke in Canada: Trends and Projections. Stroke. 2015 Aug 1;46(8):2226-31. Coauthor or Collaborator.   
11. Mansfield E, Stergiou-Kita M, Cassidy JD, Bayley M, Mantis S, Kristman V, Kirsh B, Gomez M, Jeschke MG, Vartanian O, Moody J, Colantonio A. Return-to-work challenges following a work-related mild TBI: The injured worker perspective. Brain Inj. 2015 Jan 1;29(11):1362-9. Available from: http://www.tandfonline.com/doi/abs/10.3109/02699052.2015.1053524#.VecukKRVhBc. Coauthor or Collaborator.   
12. Marshall S, Bayley M, McCullagh S, Velikonja D, Berrigan L, Ouchterlony D, Weegar K. Updated clinical practice guidelines for concussion/mild traumatic brain injury and persistent symptoms. Brain Injury. 2015 Jan 1;29(6):688-700. Coauthor or Collaborator.   
13. Stergiou-Kita M, Mansfield E, Bayley M, Cassidy JD, Colantonio A, Gomez M, Jeschke M, Kirsh B, Kristman V, Moody J, Vartanian O. Returning to work after electrical injuries: workers’ perspectives and advice to others. J Burn Care Res. 2014 Nov 1;35(6):498-507. Coauthor or Collaborator.   
14. Bayley MT, Tate R, Douglas JM, Turkstra LS, Ponsford J, Stergiou-Kita M, Kua A, Bragge P, INCOG Expert Panel. INCOG guidelines for cognitive rehabilitation following traumatic brain injury: methods and overview. J Head Trauma Rehabil. 2014 Jul 1;29(4):290-306. Principal Author.   
B. Positions and Honors.   
1993 Jul - 1999 Jun Clinical Assistant Professor, Physical Medicine and Rehabilitation, Medicine, McMaster University, Ontario, Canada   
1999 Jun - 2002 Jun Clinical Associate Professor, Physical Medicine and Rehabilitation, Medicine, McMaster University, Hamilton, Ontario, Canada   
1999 - present Medical Director of Brain and Spinal Cord Rehabilitation Program, Toronto Rehabilitation Institute, University Health Network, Toronto, Ontario, Canada   
2005 Jul – 2017 Jul Associate Professor, Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada   
2007 Jul - present Co-Chair, Best Practices and Standards Committee, Canadian Stroke Strategy, Canada   
2008 Jul - present Evaluation Champion and Chair, Stroke Evaluation and Quality Committee, Ontario Stroke Network, Ontario, Canada   
Leading identification of performance indicators for the Ontario Stroke System   
2009 Jan - present Chair, Brain Injury Committee, Ontario Neurotrauma Foundation, Ontario, Canada   
2012 Jan - present Associate Scientist, University of Toronto, Institute for Clinical and Evaluative Sciences, Sunnybrook Health Sciences Center, Toronto, Ontario, Canada   
2012 Nov - present Member, Institute of Health Policy, Management and Evaluation, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada   
2013 Jun - present Scientist, Heart and Stroke Foundation, Canadian Partnership for Stroke Recovery, Ontario, Canada   
2017 Jul- Present Professor, Department of Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada   
  
Honors   
2005 Dec Best Poster, Co-Author, International Guidelines evaluation Network, Belgium. (Research Award) Quality of Published Stroke Guidelines.   
2007 Sep Arthur Shears Lectureship, Dalhousie University, Halifax, Nova Scotia, Canada.)   
2008 Oct Best Poster Award, Author, American Congress of Rehabilitation, United States. (   
2010 Jun Emerging Breakthrough: Virtual Reality in Rehabilitation Using Wii Gaming Technology. A Pilot Randomized Clinical Trial and Proof of Principle Effectiveness., Co-Author, Canadian Stroke Congress, Quebec, Quebec, Canada. (Research Award)   
2010 Jun Emerging Breakthrough: Predictive Value of AlphaFIM for Stroke Rehabilitation, Principal Author, Canadian Stroke Congress, Quebec, Quebec, Canada. (Research Award)   
One of top 6 abstracts as chosen by review panel from all submissions.   
2010 Sep Best Poster, Co-Author, International Guidelines evaluation Network, United States. (Research Award)Awarded for: Recommendations are not enough: Creating a toolbox to promote Guideline Uptake.   
2010 Henry Stonnington Award, Journal- “Brain Injury”. (Distinction)   
For best review article in the journal Brain Injury awarded for “Acute management of acquired brain injury part I: An evidence-based review of non-pharmacological interventions”.   
2010 Jun - present Stroke Program Distinction Award, Medical Director of Stroke Program at Toronto Rehabilitation Institute, Accreditation Canada, Canada. (Distinction)   
2014 Jul - 2019 Jun Saunderson Family Chair in Acquired Brain injury Research, UHN-Toronto Rehabilitation Institute and University of Toronto, Ontario, Canada. (Research Award,$375,000))   
2014 Jun Award of Merit, Canadian Association of Physical Medicine & Rehabilitation, Canada.   
Recognition for outstanding and exemplary achievement, character and contributions to the field of physiatry.   
2014 Canadian Association of Physical Medicine and Rehabilitation- Research Paper of the Year, Co-Author. (Research Award)“Inpatient stroke rehabilitation in Ontario: are dedicated units better? International Journal of Stroke. 2013 Aug 1;8(6):430-5”.   
2016 University of Toronto Department of Medicine Award for Quality and Innovation   
C. Contribution to Science   
My clinical and health services research has three main thrusts:   
i) Implementation Science or Knowledge translation research: The time from publication to implementation of new evidence is estimated to be 17 years. Implementation Science or Knowledge translation research involves the study of clinician uptake of novel research findings with a goal of improving patient outcomes through implementation of best practice. This quality improvement research involves studying which strategies most effectively help change practice. This work has resulted in:   
1. Development and Dissemination of International Clinical Guidelines for Stroke, Brain injury, Cognitive Rehabilitation and Concussion   
2. Implementation of strategies to promote uptake of guidelines including: on-site facilitators of best practice, utilization of report cards with audit and feedback, policy based funding incentives for quality and development of a smartphone app that have made meaningful improvements in Patient outcomes and health system efficiency The Stroke Canada Optimization of rehabilitation research was an example of a project where we built a team of the best Canadian Stroke rehab researchers, developed the concept, coordinated most aspects of the 7 site pilot and 20 site cluster randomized trial) of implementation with over 1500 subjects demonstrating better outcomes in the intervention group.   
  
ii) Studies of impact of novel adjunctive treatments I have led multicenter controlled trials to enhance recovery is the EVREST study whereas co PI, I oversaw the virtual reality intervention protocol at Toronto Rehab. This was the first randomized controlled trial (RCT) of the Wii gaming system to show improvements in arm recovery. We also showed that stroke motor recovery was enhanced in a RCT of early continuous positive airway pressure (CPAP) treatment of sleep apnea, a significant comorbidity present in half of our stroke rehabilitation patients. I co-led the implementation of a unique balance, falls and mobility clinic that offers Neuro Rehabilitation patients a detailed high-tech assessment of their fall risks and integrates aerobic training, perturbation training and other groundbreaking therapies into day to day practice   
  
iii) Studies of early predictive assessment tools and contextual factors that are determinants of rehabilitation outcomes.   
I have also evaluated the value of pre-admission measures to determine responsiveness to rehabilitation intervention including: the alpha FIM to predict outcomes of stroke rehabilitation and the Lower Extremity Amputee scale. Work within Toronto Rehab has used brain injury patients to examine an important prognostic question in rehabilitation whether the brain competes with itself for residual brain resources and whether intensification of therapy can improve results of rehabilitation. Recently as an associate scientist at the Institute for Clinical and Evaluative Sciences (ICES) we are following a cohort of brain injury patients through administrative databases to determine the optimal care trajectory with best one year outcomes. Other studies of contextual factors include: the relevance of type and cause of brain injury as well as factors associated with prolonged recovery after concussion.   
  
Full list of Publications available at www.researchgate.net   
D. Research Support (Last 3 Years)   
2015 Dec - 2019 Dec Co-Investigator. Canadian Traumatic Brain Injury Research Consortium (CTRC). Canadian Institute of Health Research (CIHR). PI: Hutchison, James S; Turgeon, Alexis F; et al. Collaborator(s): Archambault, Patrick; Baker, Andrew J; Barlow, Karen M; Bayley, Mark T; Beauchamp, Miriam H; Chapman, Martin G; Chasse, Michael; Clarke, David B; Colantonio, Angela; Cusimano, Michael D; Emeriaud, Guillaume; English, Shane W; Esser, Michael J; Fraser, Douglas D; Griesdale, Donald; Guerguerian, Anne-Marie; Lacroix, Jacques; Lauzier, François; Marshall, Shawn C; McCredie, Victoria A; Mcfadyen, Bradford J; Panenka, William J; Ptito, Alain; Reed, Nicholas; Winston, Brent W; Yeates, Keith O; et al. 1,824,513 CAD. [Grants]   
  
2015 Oct - 2018 Sep Principal Applicant. Canadian Partnership for Stroke Recovery Clinical Trials Platform. Brain Canada Foundation. FRN-138435. PI: Mark Bayley. Collaborator(s): Dale Corbett, Janice Eng, Farrell Leibovitch, Bill McIlroy, Robert Teasell, Avril Mansfield, Sean Dukelow, Marilyn McKay Lyons, Michelle Ploughman. 3,000,000 CAD. [Clinical Trials]   
This funding is form a clinical trials platform at rehabilitation research centers across Canada for Stroke Care.   
2014 Jun - 2016 May Co-Investigator. Development and Evaluation of iWalk: after Stroke. Canadian Institutes of Health Research (CIHR). Knowledge to Action Grant. PI: Nancy Salbach. Collaborator(s): D Brooks, M MacKay-Lyons, P Solomon, M Bayley, A Mihailidis, L Kelloway, K White, J Howe, A McDonald. $199,876 CA   
  
2014 Jun - 2016 May Co-Investigator. Traumatic Brain Injury in the Workplace: Innovations for Prevention. Ontario Ministry of Labour. 13-R-056. PI: Colantonio, Angela. Collaborator(s): Pia Kontos, Mark Bayley, John Lewko, Alex Mihailidis, Tatyana Mollayeva. 298,916.05 CAD. [Grants]   
2014 Apr - 2015 Apr Principal Investigator. Increasing the Dose of Cardiovascular and Aerobic exercise in Inpatient Rehabilitation. Academic Health Sciences Physicians Innovation Fund. Collaborator(s): Oh Paul, Inness Elizabeth, McIIroy William, Mansfield Avirl, Mileris Ramona. 43,095 CAD. [Grants]   
2013 Dec - 2016 Mar Co-Principal Investigator. Development of Guidelines for treatment of Moderate and Severe Traumatic Brain injury. Ontario Neurotrauma Foundation (ONF). PI: Bayley, Mark. Collaborator(s): Bonnie Swaine, Marie-Eve Lamontagne, Shawn Marshall. 250,000 CAD.   
2012 Jul - 2014 Jul Co-Principal Investigator. Cognitive Rehabilitation following Traumatic Brain Injury: Evidence vs. Practice. Monash University research grant (Australia). Strategic Grants Scheme. PI: Peter Bragge. Collaborator(s): Mark Bayley, Robert Teasell, Shawn Marshall, Jennie Ponsford, Robyn Tate, Russell Gruen, Elizabeth Sherry, Veronica Pitt, Catherine Wiseman Hakes, Mary Kita, Kate Phillips. 50,000 AUD. [Grants].   
2012 Jul - 2014 Jul Co-Investigator. The Role of Exercise in Modifying Outcomes for People with Multiple Sclerosis: Randomized Trial of Multiple Sclerosis Tailored Exercise Program (MSTEP©). Canadian Institutes of Health Research (CIHR). Institute for Neurosciences, Mental Health and Addiction. PI: Mayo, Nancy. Collaborator(s): M. Bayley, R. Andersen, S. Bartlett, P. Duquettte. Y. Lapierre. 500,300 CAD. [Grants]   
2012 Jul - 2014 Jun Co-Investigator. Development of Guidelines for diagnosis and treatment of Mild Traumatic Brain injury in Children. Ontario Neurotrauma Foundation. PI: Zemek, Roger. Collaborator(s): Mark Bayley, Peter Rumney. 150,000 CAD. [Grants]   
2012 Jun - 2014 Jul Co-Investigator. Stroke units in Ontario: characteristics and costs associated with effectiveness. Ontario Stroke Network (OSN). PI: Krahn, Murray. Collaborator(s): Mark Bayley, Luciano Ieraci, Moira Kapral. 100,000 CAD. [Clinical Trials]   
2012 Jun - 2014 Jul Co-Investigator. Development and preliminary evaluation of an enhanced fitness program to promote long-term engagement in physical activity after stroke. Ontario Stroke Network (OSN). PI: Mansfield, Avril. Collaborator(s): Mcilroy W. Inness L, Bayley M, Brooks D. 99,391 CAD. [Clinical Trials]   
2012 Jun - 2014 Jul Co-Investigator. Enhancing Stroke Survivor Community Re-Integration by Supporting their Family Caregivers across the Care Continuum. Ontario Stroke Network. Ontario Stroke Network (OSN). PI: Cameron, Jill. Collaborator(s): G Naglie, M Bayley, M Gignac, F Silver, M Huijbregts, A Cheung, G Warner, S Phillips, and T Green. Collaborators: Shelley Sharpe, Mark Morris, Beth Brownlee, Pauline Bodnar, Amy Waller, Darlene Bowman, Carolyn MacPhail, Tracy MacGillivary, and Alda Tee. 99,750 CAD. [Clinical Trials]   
2012 Apr - 2014 Mar Co-Investigator. Development of Guidelines for treatment of Mild Traumatic Brain injury. Ontario Neurotrauma Foundation. PI: Shawn Marshall. Collaborator(s), Bayley, Mark. 150,000 CAD. [Grants]   
2012 Apr - 2014 Mar Principal Investigator. Development of an Audit tool to Ensure Best Practices in Cognitive Rehabilitation after Acquired Brain Injury. Ontario Neurotrauma Foundation. Collaborator(s): Peter Bragge, Robert Teasell, Shawn Marshall, Jennie Ponsford, Robyn Tate, Russell Gruen, Elizabeth Sherry, Veronica Pitt, Catherine Wiseman Hakes, Mary Kita, Kate Phillips. 150,000 CAD. [Grants]   
2012 Apr - Present Co-Investigator. Evidence-Based Review of Moderate to Severe Acquired Brain Injury (ABI) Rehabilitation. Ontario Neurotrauma Foundation. Acquired Brain Injury Research Program. PI: Robert Teasell. Collaborator(s): Marshall S, Cullen N, Bayley M, Rees L, McCormick A. 89,000 CAD. [Grants]   
  
2011 Jul - 2014 Jun Co-Principal Investigator. Efficacy of Virtual Reality Exercises using Wii gaming   
technology in STroke Rehabilitation: A Multicenter   
Randomized Clinical Trial. Heart and Stroke Foundation of Ontario. Research Grant. NA7362. PI: Saposnik, Gustavo. Collaborator(s): Dr. Muhammad Mamdani, Dr. William McIlroy, Dr. Robert Teasell, Prof. Kevin Thorpe, Dr. Andreas Laupacis, Donna Cheung, OT; Jennifer Shaw, RT; Jacqueline Willems, Dr. Leonardo Cohen; Dr. Pamela Duncan; Dr. Mindy Levin. 246,014 CAD. [Grants]

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**Human Rights and Access to Technology by People with Spinal Cord Injury**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Anne Bryden, MA, OTR/L***  
Case Western Reserve University

**CV:**  
Position Title: Director of Clinical Trials and Research at The Institute for Functional Restoration, Case Western Reserve University   
  
Personal Statement:   
I have over 20 years of experience working with individuals with paralysis. I am deeply committed to improving the lives of people with spinal cord injury. My specific research interests include technology and innovation, surgical interventions, outcomes measurement, human rights and service access, and the social determinants of health and wellness in people with chronic physical disability. I have authored and co-authored several peer-reviewed publications on the topic of spinal cord injury. Currently I am the Chair of the Rehabilitation Standards Committee of The American Spinal Injury Association and an active member of the Research Committee of the Academy of Spinal Cord Injury Professionals. Additional professional memberships include The American Occupational Therapy Association, The American Sociological Association and the International Spinal Cord Society. I am a frequent reviewer of manuscripts related to rehabilitation and research for peer-reviewed journals such as Spinal Cord, Archives of Physical Medicine and Rehabilitation and Topics in Spinal Cord Injury Rehabilitation.   
  
As a Sociologist and Occupational Therapist, I have an increasing interest in the many social and psychological barriers that people with SCI encounter in society. My research training in both disciplines allows me to have a unique perspective that spans a biomedical model and social model of disability. I have training in interviewing, group process, and qualitative study design and analysis. As part of my doctoral work, I am conducting research on the human rights of people with disability as they are related to technology and service access.   
  
Positions and Honors:   
05/17-Present Director of Clinical Trials and Research   
The Institute for Functional Restoration / Case Western Reserve University   
03/11-05/17 Research Manager   
Case Western Reserve University / The Cleveland FES Center   
Cleveland, Ohio   
07/04-02/11 Clinical Rehabilitation Specialist   
Case Western Reserve University / The Cleveland FES Center   
Cleveland, Ohio   
02/93-07/04 Research Health Science Specialist   
Department of Veterans Affairs / The Cleveland FES Center   
Cleveland, Ohio   
07/91-02/93 Occupational Therapist   
Saint Vincent Charity Hospital & Health Center   
Cleveland, Ohio   
  
Academy of Spinal Cord Injury Professionals  Therapy Leadership Council Distinguished Clinical Award September 2015   
  
Neilsen Foundation Allied Health Professional Award of ASIA   
May 2015   
  
Case Western Reserve University Weatherhead School of Management Women in Leadership Certificate June 2012   
  
Case Western Reserve University   
Women Staff Leadership Development Initiative – Class of 2011-2012   
  
Contributions to Science   
1. Assessment of Functional Outcomes Following Innovative Interventions to Restore Function after Spinal Cord Injury (SCI)   
Historical Background I have more than twenty years of experience measuring the impact of innovative interventions such as functional electrical stimulation (FES) neuroprosthetic systems and tendon transfer surgery in people with tetraplegia. These interventions impact multiple domains such as physiological functioning, activity performance and community participation requiring specialized knowledge in measuring their effects. Central Findings Neuroprosthetic systems and tendon transfers provide people with SCI more independence in performing activities of daily living in both their personal environments and out in the community. Participant satisfaction levels after these interventions are high. Application of Findings Neuroprosthetics and tendon transfer procedures provide function that is not otherwise attainable for this highly disabled population. Careful assessment of outcomes is critical to detect improvements and justify wider implementation of these interventions. Role I lead the functional assessment program for upper extremity neuroprosthetics and tendon transfers at The Cleveland FES Center. It is my responsibility to choose and implement the appropriate functional measures to detect outcomes.   
Bryden AM, Bezruczko N. An Activity of Daily Living Measure for Spinal Cord Injury. Journal of Applied Measurement 12(3):279-297, 2011   
Bryden AM, Kilgore KL, Keith MW, Peckham PH. Assessing Activity of Daily Living Performance after Implantation of an Upper Extremity Neuroprosthesis. Topics in Spinal Cord Injury Rehabilitation 14(3):37-53, 2008.   
  
Bryden AM, Kilgore KL, Kirsch RF, Memberg WD, Peckham PH, Keith MW. An Implanted Neuroprosthesis for High Tetraplegia. Topics in Spinal Cord Injury Rehabilitation 2005;10(3)38-52.   
Bryden AM, Wuolle KS, Murray PK and Peckham PH. The Utilization and Perceived Outcomes of Upper Extremity Surgical Reconstruction in Persons with Tetraplegia at Model Spinal Cord Injury Systems. 2004 Spinal Cord 42:169-176.   
Wuolle KS, Bryden AM, Peckham PH, Murray PK and Keith MW. Satisfaction with Upper Extremity Surgery in Individuals with Tetraplegia. Arch Phys Med Rehabil 2003 84(8):1145-9.   
Peckham PH, Kilgore KL, Keith MW, Bryden AM, Bhadra N, Montague FW. An Advanced Neuroprosthesis for Restoration of Hand and Upper Arm Control Using an Implantable Controller. J Hand Surg [Am] 2002 Mar;27(2):265-76   
Bryden AM, Memberg WD and Crago PE. Functional and Physiological Evaluation of Electrically Stimulated Elbow Extension in Persons with C5 / C6 Tetraplegia. Arch Phys Med Rehabil 2000;81:80-88.   
Wuolle KS, Van Doren CL, Bryden AM, Peckham PH, Keith MW, Kilgore KL and Grill JH. Satisfaction and USAge of a Hand Neuroprosthesis. Arch Phys Med Rehabil 1999;80:206-13.   
Kilgore KL, Peckham HP, Keith MW, Thrope GB, Wuolle KS, Bryden AM, and Hart RL. “An Implanted Upper Extremity Neuroprosthesis: Follow up of Five Patients”. J Bone Joint Surg 1997; 79A: 533-41   
  
2. Establishing Clinical Assessment Standards for Upper Limb Management in Tetraplegia   
Historical Background In my experience leading the measurement of functional outcomes of neuroprosthetic systems and other interventions, I have collaborated with other national and international experts in SCI rehabilitation. These collaborations have allowed me to contribute to the development of national and international clinical standards for upper limb management in tetraplegia. Central Findings I have contributed to book chapters and journal articles focused on assessment and treatment of upper limb dysfunction, including the International SCI Upper Extremity Basic Data Set. I am currently developing a manualized assessment of lower motor neuron damage that can be implemented by therapy clinicians, and have been invited to teach the process at two rehabilitation centers in Canada. Application of Findings Standardized assessments contribute to a shared language across clinicians and improve the overall assessment and care of people with SCI. The ability to detect lower motor neuron damage in people with SCI allows more targeted and appropriate intervention and identifies potential risks for additional dysfunction from problems such as contracture. Role I lead the effort to improve and refine existing outcome measures for tetraplegia. I also lead the effort to make lower motor neuron testing a standard of care by educating clinicians and participating in national and international work groups focused on rehabilitation outcomes measurement.   
Bryden AM, Hoyen HA, Keith MW, Mejia M, Kilgore KL, Nemunaitis GA. Upper Extremity Assessment in Tetraplegia: The Importance of Differentiating between Upper and Lower Motor Neuron Paralysis. Arch Phys Med Rehabil. 97(6 Suppl 2):S97-104, 2016.   
Bryden AM, Kilgore KL, Lind BB and Yu DT. Triceps Denervation as a Predictor of Elbow Flexion Contractures in C5 and C6 Tetraplegia. Arch Phys Med Rehabil 2004;85(11)1880-1885.   
Mulcahey MJ, Betz RR, Bryden A, Calhoun C, LaVelle W, Schmidt-Read M, Stiefbold G. Orthotics. In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. Wolters Kluwer:New Delhi, Chapter 36, pp. 558-579.   
Bryden AM, Peljovich AE, Hoyen HA, Nemunaitis G, Kilgore KL, Keith MW. Surgical Restoration of Arm and Hand Function in People with Tetraplegia. Topics In Spinal Cord Injury Rehabilitation 18(1):43-49, 2012.   
Biering-Sorensen F, Bryden AM, Curt A, Friden J, Harvey LA, Mulcahey MJ, Popovic MR, Prochazka A, Sinnott KA, Snoek G. International Spinal Cord Injury Upper Extremity Basic Data Set. Spinal Cord, Advance Online:1-6, 2014.   
Bryden AM, Sinnott KA, Mulcahey MJ. Innovative Strategies for Improving Upper Extremity Function in Tetraplegia and Considerations in Measuring Functional Outcomes. Topics in Spinal Cord Injury Rehabilitation 2005;10(4)75-93.   
Dunn JA, Sinnott KA, Bryden AM, Connolly SJ, Rothwell AG. Measurement Issues Related to Upper Limb Interventions in Persons Who Have Tetraplegia. Hand Clin 24:161–168, 2008.   
Peljovich AE, Bryden AM, Malone K, Hoyen HA, Hernandez-Gonzalez E, Keith MW. Rehabilitation of the Hand and Upper Extremity in Tetraplegia. In: Skirven TM, Osterman AL, Fedorczyk JM, Amadio PC, eds. Rehabilitation of the Hand and Upper Extremity. 6th ed. Philadelphia, PA:Elsevier Mosby; 2011.

***Brian Gran, PhD, JD***  
Case Western Reserve University

**CV:**  
Position Title: Professor, Sociology, Case Western Reserve University   
  
Positions and Honors:   
10/2016 Andrew Carnegie Fellowship, Nominee.   
2016-present Member, National Conference of Lawyers and Scientists..   
2013-2014 Fulbright Scholar, Iceland.   
2014 ASA Gordon Hirabayashi Human Rights Book Award.   
Honorable Mention for the Handbook of Sociology and Human Rights.   
2009-present. Associate Professor, Department of Sociology, Law School, and   
Mandel School of Applied Social Sciences.   
  
Under review With Karie Feldman. “Parental Leave and Health Equity.”   
Journal of Marriage and the Family.   
Under review With Cory Cronin. “The Importance of Environment: Neighborhood and Child Health.”   
Journal of Child Health Care.   
In preparation With Anne Bryden. “Human Rights, Technology, and Disabilities.” Human Rights Quarterly.   
for submission   
In preparation Gran, B. “Structures of Health and Extended Working Life Policies.”   
for submission Journal of Social Policy.   
In preparation With Áine Ni Lieme and Debi Street. “Extended Working Life, Health Insurance, and   
for submission Retirement Pensions.” Journal of European Social Policy.   
In preparation With Elizabeth Nalepa. “Public-Private Boundaries of Bodily Control.” to Law and Society   
for submission Review.   
In preparation With Cory Cronin and Margaret Waltz. “Parent Gender and Perception of Child Health.”   
for submission Sociological Forum.   
In preparation With Brian Polk and Robin Shura. “Can We Trust Human Trafficking Evidence?” Journal of   
for submission Human Trafficking.   
In preparation With Bradley Powell. “An Index of LGBTQ Rights.” to Law and Society Review.   
for submission   
Under contract Gran, B. Sociology of Children’s Rights. Polity   
2016 Gran, B. Do fuzzy retirement-income systems work best? In G. Joseph (Ed.),   
Diverse Perspective on Aging in a Changing World. New York, NY: Routledge.   
2016 Brunsma, D.L., Iyall Smith, K.E., & Gran, B.K. (Eds.). Institutions Unbound: Social Worlds   
and Human Rights. New York, NY: Routledge.   
2016 Feldman, K. & Gran, B. What’s in it for dad? Developing a typology for a cross-national comparison of paternity leave policies. Journal of Sociology and Social Welfare, 43 (1), 95-119.   
2013 Brunsma, D.L., Iyall Smith, K.E., & Gran, B.K. (Eds.). The Handbook of Sociology and   
Human Rights. New York, NY: Routledge.   
2013 Gran, B., Waltz, M., & Renzhofer, H. A child’s right to enjoy benefits of scientific progress   
and its applications. The International Journal of Children's Rights, 21(2), 323-344. doi:   
10.1163/15718182-02102002.

***Kimberly Anderson, PhD***  
Miami Project to Cure Paralysis

**CV:**  
POSITION TITLE: Research Associate Professor; Director of Education   
  
B. Positions and Honors   
Positions and Employment   
1996-2000 Graduate Research Assistant, Dept. Neurosciences, Biomedical Sciences Graduate Program, Univ. of New Mexico   
2000-2004 Post-doctoral Fellow, Reeve-Irvine Research Center, Dept. Anatomy & Neurobiology, Univ. of   
California, Irvine   
2004-2009 Assistant Adjunct Professor, Reeve-Irvine Research Center, Dept. Neurological Surgery,   
University of California, Irvine   
2009-2010 Visiting Project Scientist, Reeve-Irvine Research Center, Dept. Neurological Surgery, University of California, Irvine, School of Medicine   
2009-present Director of Education, The Miami Project to Cure Paralysis, University of Miami   
2011-present Research Associate Professor, Dept. Neurological Surgery, The Miami Project to Cure   
Paralysis, University of Miami   
  
Other Experience and Professional Memberships   
5/22/2006 Grant reviewer for U.S. Department of Education, National Institute on Disability and   
Rehabilitation Research, 2006 Spinal Cord Injury Model System Centers Program Grant Review   
3/16/2007 Ad hoc grant reviewer for the National Institute of Child Health and Human Development (NICHD)   
spring Population Sciences Committee   
3/29/2007 Ad hoc grant reviewer for the Craig H. Nielsen Foundation spring cycle   
3/16/2009 Ad hoc grant reviewer for Craig H. Neilsen Foundation, Spring 2009 Grant Review   
3/31/2009 Ad hoc grant reviewer for Ontario Neurotrauma Foundation, Studentship/Fellowship Grant   
Review   
6/12/2009 Special Emphasis Panel/Scientific Review Group RFA-OD-09-003 Challenge Grant Panel 11,   
NIH   
1/12/2010 Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally   
Directed Medical Research Programs, Spinal Cord Injury Research Program Grant Review   
2/21/2010 Alberta Paraplegic Foundation, Spring 2010 Grant Review   
2010-present Expert Review Panel Member, Quality of Life Grants, Christopher and Dana Reeve Foundation   
2012-present National SCI Association Medical and Scientific Advisory Committee Member   
2012 Ad hoc grant reviewer for Patient Centered Outcomes Research Institute   
2013 Grant reviewer for U.S. Department of Education, National Institute on Disability and Rehabilitation Research, DRRP Health and Function of Individuals with Disabilities Grant Review   
  
1998-present Society for Neuroscience   
2000-present National Neurotrauma Society   
2004-present American Spinal Injury Association (ASIA)   
2005-2009 UCI General Clinical Research Center Advisory Committee   
2005-2015 ASIA Membership Committee   
2006-2008 ASIA Outcome Measures – Functional Recovery Sub-committee member   
2006-2012 Member, Geron ESCRO (embryonic stem cell research oversight) Committee   
2007-2011 Committee Member, National Advisory Board for Medical Rehabilitation Research, NICHD, NIH   
2008-2010 Pan-Canadian Spinal Cord Injury Solutions Network-Translational Research Program, Research   
Advisory Committee Member   
2008-2010 North American Spine Society, International Education Committee, Member   
2008-present International Spinal Cord Society (ISCoS)   
2009-present Spinal Cord Outcomes Partnership Endeavor (SCOPE), Member   
2009-2013 Optimizing Participation Through Technology – Rehabilitation Engineering Research Center   
(OPTT-RERC) Advisory Board Member, University of Southern California   
2012-present ASIA Program Committee, Member   
2013-present Chair, Spinal Cord Injury Functional Assessments Common Data Elements Working Group,   
NINDS, NIH   
2013-present Asterias ESCRO (Embryonic Stem Cell Research Oversight) Committee, Member   
2014-2016 Praxis 2016 Program Advisory Committee, Rick Hansen Institute   
2015-present ASIA Research and Awards Committee, Member   
2015-present Councilor, National Neurotrauma Society   
  
C. Contribution to Science   
1. My primary contributions to the field focus on the identification of research priorities of the human population living with SCI. My seminal publication in 2004, “Targeting recovery: Priorities of the spinal cord injured population”, has had significant impact on both the basic and clinical SCI research arenas. It is now the 3rd most cited article in the Journal of Neurotrauma. Individuals living with a disease should be included in the research process and my research has demonstrated that useful information can be obtained from the population living with SCI and that it can be used to shape the research agenda. There has been an increase in research addressing upper extremity function and autonomic function after SCI, the 2 highest priorities, as a result of my research contributions. I served as the primary investigator in all of these studies.   
  
a. Anderson, KD. (2004). Targeting recovery: Priorities of the spinal cord injured population. J. Neurotrauma. 21:1371-1383.   
b. Anderson, KD, Borisoff, JF, Johnson, RD, Stiens, SA, Elliott, SL. (2007). The impact of spinal cord injury on sexual function: concerns of the general population. Spinal Cord 45:328-337.   
c. Cowan RE, Nash MS, Anderson KD. (2013). Exercise participation barrier prevalence and association with exercise participation status in individuals with spinal cord injury. Spinal Cord. 51(1):27-32.   
d. Anderson KD, Cowan RE, Horsewell J. (2016 Facilitators and barriers to spinal cord injury (SCI) clinical trial participation: Multi-national perspective of people living with SCI. J. Neurotrauma. 33:493-499.   
  
2. I have also led and/or collaborated with multiple investigators an area of research aimed at improving outcome assessments for SCI, particularly for use in clinical trials. The Functional Independence Measure had by default become the gold standard for measuring whole body function in SCI, yet it was not designed for SCI and is quite insensitive. My collaborative research has now enabled the Spinal Cord Independence Measure to become the outcome measure of choice when it comes to overall function. It was designed specifically for SCI, it is sensitive to change, it is now highly recommended by NIH SCI Common Data Elements as the primary outcome measure to evaluate overall function, and it is being used in multiple clinical trials.   
  
a. Anderson, K, Aito, S, Atkins, M, Biering-Sørensen, F, Charlifue, S, Curt, A, Ditunno, J, Glass, C, Marino, R, Marshall, R, Mulcahey, MJ, Post, M, Savic, G, Scivoletto, G, Catz, A. (2008). Functional Recovery Measures for Spinal Cord Injury: Comparison by a Multi-National Work Group. J. Spinal Cord. Med. 31:133-144.   
b. Anderson KD, Acuff ME, Arp BG, Backus D, Chun S, Fisher K, Fjerstad JE, Graves DE, Greenwald K, Groah SL, Harkema SJ, Horton III JA, Huang M-N, Jennings M, Kelley KS, Kessler SM, Kirshblum S, Koltenuk S, Linke M, Ljungberg I, Nagy J, Nicolini L, Roach MJ, Salles S, Scelza WM, Read MS, Reeves RK, Scott MD, Tansey KE, Theis JL, Tolfo CZ, Whitney M, Williams CD, Winter CM, Zanca JM. (2011). United States (US) multi-center study to assess the validity and reliability of the Spinal Cord Independence Measure (SCIM III). Spinal Cord. 49:880-885.   
c. Steeves JD, Lammertse DP, Kramer LK, Kleitman N, Kalsi-Ryan S, Jones L, Curt A, Blight AR, Anderson KD. (2012). Outcome Measures for Acute/Subacute Cervical Sensorimotor Complete (AIS-A) Spinal Cord Injury During a Phase 2 Clinical Trial. Top Spinal Cord Inj Rehabil. 18(1):1–14.   
d. Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. (2015). Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord. 53:265-277.   
3. My early work directly addressed molecular mechanisms of axonal regeneration. The Growth Associated Protein 43 (GAP-43) mRNA is upregulated after neuronal injury but is unstable and quickly degraded. The RNA-binding protein HuD can bind to the 3’ UTR of the GAP-43 mRNA transcript and enhance stability. My work established that overexpessing HuD promoted neurite outgrowth in different cell culture models by stabilizing the GAP-43 mRNA and allowing more protein to be translated. I was performing this research as a graduate student with Dr. Nora Perrone-Bizzozero as part of my dissertation.   
a. Mobarak CD, Anderson KD, Beckel-Mitchener A, Rogers SL, Furneaux H, Perrone-Bizzozero NI (2000) The RNA-binding protein HuD is required for GAP-43 mRNA stability, GAP-43 gene expression, and PKC-dependent neurite outgrowth in PC12 cells. Mol. Biol. Cell. 11:3191-3203.   
b. Anderson KD, Morin M, Beckel-Mitchener A, Mobarak C, Neve RL, Furneaux HM, Burry R, Perrone-Bizzozero NI (2000) Overexpression of HuD, But Not of Its Truncated Form HuD I+II, Promotes GAP-43 Gene Expression and Neurite Outgrowth in PC12 cells in the Absence of NGF. J. Neurochem. 75:1103-1114.   
c. Anderson KD, Sengupta J, Morin M, Neve RL, Valenzuela CF, Perrone-Bizzozero NI (2001) Overexpression of HuD accelerates neurite outgrowth and increases GAP-43 mRNA expression in cortical neurons and retinoic acid-induced embryonic stem cells in vitro. Exp. Neurol. 168:250-258.   
d. Anderson KD, Merhege MA, Morin M, Bolognani F, Perrone-Bizzozero NI (2003) Increased expression and localization of the RNA-binding protein HuD and GAP-43 mRNA to cytoplasmic granules in DRG neurons during nerve regeneration. Exp. Neurol. 183:100-108.   
  
4. Another phase of research focused on forelimb function after cervical spinal cord injury (SCI) in rodents. I established the natural recovery profile of gripping ability in mice and rats and the relationship to corticospinal integrity. We went on to develop the first bilateral contusion injury model in the cervical region of the rat spinal cord and the subsequent novel Forelimb Locomotor Assessment Scale. This work led to an increase in cervical SCI research in the field, which had previously been dominated by thoracic injury. I performed this research as a post-doctoral fellow and junior faculty member with Dr. Oswald Steward.   
  
a. Anderson KD, Abdul M, Steward O (2004) Quantitative assessment of deficits and recovery of forelimb motor function after cervical spinal cord injury in mice. Exp. Neurol. 190:184-191.   
b. Anderson KD, Gunawan A, Steward O (2007) Spinal pathways involved in the control of forelimb motor function in rats. Exp. Neurol. 206:318-331.   
c. Anderson KD, Sharp KG, Hofstadter M, Irvine KA, Murray M, Steward O (2009) Forelimb Locomotor Assessment Scale (FLAS): A new tool to assess forelimb dysfunction after cervical spinal cord injury. Exp. Neurol. 220:23-33.   
d. Anderson KD, Sharp KG, Steward O (2009) Bilateral cervical contusion spinal cord injury in rats. Exp. Neurol. 220:9-22.   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/1j7AeQ3Zue7A6/bibliography/45178578/public/?sort=date&direction=descending   
  
D. Research Support   
Ongoing Research Support   
Nash (P.I), Anderson (Co-I.) 2015-2020   
U.S. Department of Education, National Institute on Disability, Independent Living, and Rehabilitation Research   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment   
  
Widerstrom-Noga (P.I.), Anderson (Co-I.) 2015-2018   
U.S. Department of Defense, Spinal Cord Injury Research Program   
Perspectives in management of severe neuropathic pain after a spinal cord injury   
  
Brackett (P.I.), Anderson (Co-I.) 2015-2018   
Craig H. Neilsen Foundation   
Management of Infertility in Men with SCI: An Educational Program for Practitioners and Clients   
  
Levi (P.I.), Anderson (Co-I.) 2014-2016   
StemCells Inc.   
A Single-Blind, Randomized, Parallel Arm, Phase II Proof-of-Concept Study of the Safety and Efficacy of HuCNS-SC Transplantation in Cervical Spinal Cord Injury   
  
R25NS083064 Anderson (P.I.), Dietrich (Co-P.I.) 2013-2018   
National Institutes of Health, NINDS   
NIH Neurotrauma Summer Research Experience Program   
  
Anderson (P.I.) 2014-2016   
Craig H. Neilsen Foundation   
The Miami Project to Cure Paralysis Education Program   
  
Anderson (P.I.) 2014-2016   
Bryon Riesch Foundation   
The safety of autologous human Schwann cells (ahSC) in subjects with chronic spinal cord injury (SCI) receiving rehabilitation - Screening   
  
Completed Research Support   
Widerstrom-Noga (P.I.), Anderson (Co-I.) 2012-2015   
U.S. Department of Defense, Spinal Cord Injury Research Program   
Experiences of living with persistent pain after a spinal cord injury   
  
Anderson (P.I.), Field-Fote (Co-I.), Nash (Co-I.), Thomas (Co-I.), Widerstrom-Noga (Co-I.) 2013-2014   
Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation   
Exercise and Locomotor Training Required for Clinical Trials Targeting Chronic Spinal Cord Injury

***Megan Moynahan, MS***  
Case Western Reserve University

**CV:**  
B. Positions and Honors   
  
04/13 – Pres. Executive Director, Institute for Functional Restoration, Case Western Reserve   
University, Cleveland, OH   
  
10/11 – 02/13 Acting Associate Director for Technology and Innovation, Food and Drug   
Administration/CDRH, Silver Spring, MD   
  
05/11 – 10/11 Senior Advisor for Innovation, Office of the Center Director, Food and Drug   
Administration/CDRH, Silver Spring, MD   
  
01/08 – 05/11 Network Leader, Office of the Center Director, Food and Drug   
Administration/CDRH, Silver Spring, MD   
  
09/01 – 12/07 Branch Chief, Pacing Defibrillators and Leads Branch, Food and Drug   
Administration/CDRH, Silver Spring, MD   
  
04/96 – 09/01 Scientific Reviewer, Division of Cardiovascular Devices, Food and Drug   
Administration/CDRH, Silver Spring, MD   
  
C. Contributions to Science   
  
1. Executive Director of the Institute for Functional Restoration   
  
The Institute for Functional Restoration or IFR, was created at Case Western Reserve University (CWRU) to make available interventions developed on campus that address the functions lost due to spinal cord injury or other paralytic conditions. Much different than a research organization, the IFR chooses programs that have been shown to be viable solutions for patients and then navigates them through the pathway to availability outside of a research trial. The Institute is funded by a combination of grants, philanthropy and reimbursement.   
  
  
2. Neuroprosthetics and Regulatory Perspective   
Bowsher, K, et al. “Brain–computer interface devices for patients with paralysis and amputation: a meeting report.” J. Neural Eng. 13 (2016).   
  
3. Cardiac Leads and Regulatory Perspective   
Morales, JP, Li X, Irony T, Ibrahim N, Moynahan M, Cavanaugh K, “Decision Analysis of Retrievable Inferior Vena Cava Filters for Prophylaxis of Pulmonary Embolism in Patients Without Thromboembolic Disease. Journal of Vascular Surgery: Venous and Lymphatic Disorders. 2013;1(4):376-384.   
Moynahan M, Duggirala H, Dwyer D, Fellman M, “Letter to the Editor: FDA Response on Medtronic Model 4195 Lead,” Heart Rhythm, 2010;7(8):e3-4.   
Maisel WH, Moynahan M, Zuckerman B, et al., “Pacemaker and ICD Generator Malfunctions: Analysis of Food and Drug Administration Annual Reports,” JAMA, 2006;295:1901-6.   
Moynahan M, Faris OP, Lewis BM. “Cardiac Resynchronization Devices: the Food and Drug Administration’s Regulatory Considerations,” J Am Coll Cardiol. 2005;46(12):2325-8.   
D. Research Support   
  
Craig H. Neilsen Foundation Peckham (PI) 7/31/2015 – 7/31/2020   
“Institute for Functional Restoration”   
The goal of this project is to establish an Institute for the purpose of making advanced neuroprosthetics available to orphan disease populations.   
Role: Executive Director   
  
VA Rehabilitation Research and Development Service Kirsch (PI) 10/1/2013 – 9/30/2018   
“Cleveland VA Functional Electrical Stimulation Center of Excellence Core Grant”   
Provides core funding for the Cleveland FES Center, which conducts research into the application of functional electrical stimulation for individuals with disabilities, particularly spinal cord injury and stroke.   
Role: Co-investigator

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**Training on the Administration, Scoring and Interpretation of the Spinal Cord Injury-Functional Index and the Pediatric Spinal Cord Injury Activity Measure**

Wednesday, May 02, 2018 01:45 PM - 03:15 PM

***MJ Mulcahey, PhD, OTR\L***  
Thomas Jefferson University

**CV:**  
Position:   
Professor and Director of Research, Dept.of Occupational Therapy, Jefferson College of Health Professions, Thomas Jefferson University, Phila. PA. 19107.   
  
Peer Review Publications – Last Five Years   
1. Jones L., Mulcahey MJ, Steeves J. Considerations and Recommendations for Selection and Utilization of Upper Extremity Clinical Outcome Assessments in Human Spinal Cord Injury Trials. Spinal Cord, In Press.   
2. Jasin S, Winkle M, Mulcahey MJ. Integration of Animal-Assisted Therapy Standards in Pediatric Occupational Therapy. People and Animals: The International Journal of Research and Practice, In Press.   
3. Mulcahey MJ, Slavin M, Ni P, Kratz A, Kisala P, Haley SM, Tulsky DS, Jette AM. Examination of the PROMIS®: Pediatric upper extremity measures in youth with cerebral palsy. British J Occupational Therapy, In Press.   
4. Alizadeh M, Mulcahey MJ, Mohamed F. Reduced Field of View Diffusion Tensor Imaging and Fiber Tractography of the Pediatric Cervical and Thoracic Spinal Cord Injury. J Neurotrauma, In Press.   
5. Krogh K, Emmanuel A, Perrouvin-Verbe B, Korsten MA, Mulcahey MJ, Biering-Sørensen F. International Spinal Cord Injury Bowel Function Basic Data Set. (Version 2.0). Spinal Cord, 2017; 55(7):692-698. doi: 10.1038/sc.2016.189.   
6. Carroll A, Vogel L, Zebracki K, Noonan VK, Biering-Sorensen F, Mulcahey MJ. Relevance of the International SCI Basic Data Sets to Children and Youth: An Inter-professional Review with Recommendations. Spinal Cord, 2017;55(9):875-881.   
7. Thielen CC, Sadowsky C, Vogel LC, Taylor H, Davidson L, Bultman, J, Gaughan JP, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI II) in Children with Spinal Cord Injury. Spinal Cord, 2017;55(5):478-482. doi:10.1038sc.2016.142.   
8. Mulcahey MJ, Vogel LC, Sheikh M, Arango-Lasprilla JC, Augutis M, Garner E, Hagen EM, Jakeman LB, Kelly E, Martin R, Odenkirchen J, Scheel-Sailer A, Schottler J, Taylor H, Thielen CC, Zebracki K. Recommendations for the National Institute for Neurologic Disorders and Stroke Spinal Cord Injury Common Data Elements for Children and Youth with SCI, Spinal Cord, 2017;55(4):331-340. doi:10.1038/2016.139.   
9. Bell A, Guido T, Krisa L, Muhlenhaupt M, Mulcahey MJ. Measures and Outcome Instruments for Pediatric Spinal Cord Injury. Current Physical Medicine and Rehabilitation, 2016,4:200-207. DOI:10.007/s40141-016-0126-5.   
10. Lesher DA, Hershey P, Stanton DB, Tiedgen A, Mulcahey MJ. Alignment of Outcomes instruments used in hand therapy with core values of occupational therapy: a systematic scoping review. American J Occupational Therapy 2017, 71(1):7101-7114. doi:10.5014/ajot/2017.016741.   
11. Alizad eh M, Intinolo A, Middleton D, Conklin CJ, Faro SH, Mulcahey MJ, Mohamed FB. Reduced FOV diffusion tensor MR imaging and fiber tractography of pediatric spinal cord injury. Spinal Cord 2017;55(3):314-320. doi:10.1038/sc2016.121   
12. Saksena S, Middleton D, Krisa L, Shah P, Faro S, Sinko R, Gaughan J, Finsterbusch, Mulcahey MJ, Mohamed FB. Reduced FOV Diffusion Tensor MR Imaging of the Normal Pediatric Cervical and Thoracic Spinal Cord. AJNR, 2016, Jul 14 [ePub ahead of print]. PMID:27418470   
13. Aldino E, Mulcahey MJ, Trimble S, Argetsinger L, Bienkowski M, Mullen C, Behrman A. Development and initial validation of the pediatric neurorecovery scale. Pediatric Physical Therapy 2016, 201, 28(4):416-426. PMID:27428576   
14. Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Calhoun Thielen CL, Coster WJ, Jette, AM. The Pediatric Measure of Participation (PMoP) Short Forms. Spinal Cord, 2016,54(12):1183-1187. doi: 10.1038/sc.2016.68.   
15. Coster W, Pengsheng N, Slavin M, Kisala P, Nandakumar R, Mulcahey MJ, Tulsky D, Jette AM. Differential item functioning in PROMIS pediatric short forms in a sample of children with cerebral palsy. Developmental Med Child Neurology, 2016 58(11):1132-1138. doi: 10.1111/dmcn.13138.   
16. Conklin CJ, Middleton DM, Alizadeh M, Finsterbusch J, Raunig DL, Faro SH, Shah P, Krisa L, Sinko R, Delalic JZ, Mulcahey MJ, Mohamed FB. Spatially selective 2D RF inner field of view diffusion kurtosis imaging of the pediatric spinal cord. Neuroimage Clin. 2016 Jan 12;11:61-7. doi: 10.1016/j.nicl.2016.01.009. eCollection 2016.   
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Non-Peer Reviewed Publications Over Last Five Years   
1. Mulcahey MJ. (ed). Upper Extremity Considerations in Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, In Press.   
2. Vogel L, Zebracki K, Betz RR, Mulcahey MJ (eds). The Child with SCI. McKeith Press: London. ISBN:978-1-909962-34-7. 2014   
3. Mulcahey MJ (ed). Howard H. Steel Conference on Pediatric SCI and Dysfunction. Topics in Spinal Cord Injury Rehabilitation 19(1);2013.   
4. Mulcahey, MJ (ed). Spinal Cord Injury. Topics in Pediatric Physical Medicine Rehabilitation. Special Issue on Pediatric Spinal Cord Injury Rehabilitation 5(4), 2012.   
5. Mulcahey MJ, Talero-Cabrejo P, Kern S, Horley A, Koch M, Rude A. (2016) Occupational Therapy. In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 35, pg 538-557.   
6. Mulcahey MJ, Betz RR, Bryden A, Calhoun C, LaVelle W, Schmidt-Read M, Stiefbold G. (2016) Orthotics. In: In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 36, pp. 558-579.   
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8. Vogel L, Zebracki K, Mulcahey MJ. Special Considerations for Rehabilitation of Pediatric SCI. In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 63, pp. 941-955.   
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10. Mulcahey MJ, Zlotlow D, Kozin S. (2014). Upper Extremity Management. In: Vogel, Zebracki, Betz RR and Mulcahey MJ (eds). The Child With SCI, 2nd edition. McKeith Press London. ISBN:978-1-909962-34-7.   
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Presentation Over Last Five Years   
1. Mulcahey MJ. Pediatric spinal cord rehabilitation. 2017 International Spinal Cord Society, Dublin, Ireland. October 26-30, 2017.   
2. Slavin M & Mulcahey MJ. Contemporary measurement in spinal cord injury. 2017 International Spinal Cord Society, Dublin, Ireland. October 26-30, 2017.   
3. Foo S, Piersol C, Mulcahey MJ. Opportunity for reducing fall-related spinal cord injury among healthy older adults: referring to occupational therapy. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):38-39.   
4. Slavin MD, Mulcahey MJ, Thiele CC, Ni P, Johnson C, Davidson L, Sadowsky C, Vogel L, Jette A. Validation of linking estimates for the pediatric SCI activity measure: implications for research and practice. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1): 53-54.   
5. Zebracki K, Kelly E, Arango-Lasprillo J, Augutis M, Garner E, Hagen E, Taylor H, Vogel L, Mulcahey MJ. The NINDS SCI CDEs for psychosocial and quality of life outcome instruments: implications for research and practice. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):55-56.   
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7. Mulcahey MJ, Thielen CC, Slavin M, Vogel L, Sadowsky C, Davidson L, Gaughan J, Jette A. Predictors of child reported outcomes of daily routines, mobility and participation after spinal cord injury. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):66-67.   
8. Mulcahey MJ, Slavin M, Thielen CC. Slection, administration, scoring and administration of the pediatric SCI activity measure and the pediatric measure of participation. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):73-74.   
9. Alizadeh M, Sultan Y, Saksen S, Conklin C, Middleton D, Fisher J, Krisa L, Faro S, Mulcahey MJ, Mohamed F. Age-related changes in reduced FOV DTI and fiber tractography of the typically developed cervical and thoracic spinal cord. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):76-77.   
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11. Foo S, Mulcahey, MJ, Piersol C. Utilization of Occupational Therapy by Older Healthy Adults at Risk for Falls is Low. Presented at the 2017 Annual Conference and Expo of the American Occupational Therapy Association. Philadelphia, PA. Mar. 30-Apr.2, 2017, Philadelphia, PA.   
12. Levy F & Mulcahey MJ. Examining the Experiences of and Unmet Needs of Chassidic Mothers Raising a Child With Autism. Presented at the 2017 Annual Conference and Expo of the American Occupational Therapy Association. Philadelphia, PA. Mar. 30-Apr.2, 2017, Philadelphia, PA.   
13. Mulcahey MJ, Schmidt-Read M, Betz R, Vogel L, Thielen CC. Best practice for the neurological evaluation of children and youth with SCI. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):118-119.   
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15. Calhoun Thielen CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP, Mulcahey MJ. Meeting of the Academy of SCI Professionals. Nashville TN, Sept. 3-7, 2016. Performance of the SCIM-III in youth with SCI. J Spinal Cord Medicine 39(5):563.   
16. Calhoun Thielen CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP, Mulcahey MJ. The WISCI-II in children and Youth with SCI. Meeting of the Academy of SCI Professionals. Nashville TN, Sept. 3-7, 2016J Spinal Cord Med 2016,9(5):552.   
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22. Krisa L, Mulcahey MJ, Middleton D, Mohamen F, Zeffiro T. Alterations in resting state connectivity following pediatric spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1):21-22.   
23. Lesher D, Stanton-Berger D, Mulcahey MJ. Considerations around selection of outcome instruments in occupational therapy outpatient hand practice. Amer. Occupational Therapy Association Annual Meeting and Expos. Chicago, IL. Apr. 7-9, 2016.   
24. Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Jette A. Participation trajectories in youth with and without spinal cord injury. Presented at the 2015 American Academy of Cerebral Palsy and Developmental Medicine. Austin Texas, October 23-25, 2015.   
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26. Chris J Conklin, Devon M Middleton, Jürgen Finsterbusch, Mahdi Alizadeh, Scott H Faro, Pallav Shah, Laura Krisa, Rebecca Sinko, Joan Z Delalic, MJ Mulcahey, and Mohamed FB. Inner Field of View Diffusion Kurtosis Imaging (DKI) of the Pediatric Spinal Cord. 23rd International Society for Magnetic Resonance in Medicine Annual Meeting. Toronto, May-June 2015   
27. Mulcahey MJ, Calhoun C, Vogel LC, Kelly E. Development And Initial Validation Of The Spinal Cord Independence Measure-III --Youth (SCIM-III-Youth). 4rth ISCoS and ASIA Combine Scientific Meeting. Montreal, May 2015.   
28. Mulcahey MJ, Slavin M, Ni P, Vogel L, Calhoun C, Jette A. Development And Initial Evaluation Of The Pediatric Spinal Cord Injury Measures (PEDI-SCI) Short Forms. 4rth ISCoS and ASIA Combine Scientific Meeting. Montreal, May 2015.   
29. Mulcahey MJ, Sinko R, Martin R. Outcomes instruments in spinal cord injury. Presented at the 2015 Annual Meeting of the American Occupational Therapy Association. Nashville, TN. April 2015.   
30. Mahdi Alizadeh, Pallav Shah, Devon M Middleton, Chris J Conklin, Sona Saksena, Scott H Faro, MJ Mulcahey, Jürgen Finsterbusch, Mohamed FB. Adaptive Neuro-Fuzzy Inference System for Detection of Ghost Artifact Using Statistical Features. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
31. Sona Saksena, Devon M Middleton, Laura Krisa, Pallav Shah, Scott H Faro, Rebecca Sinko, MJ Mulcahey, John Gaughan, Jürgen Finsterbusch, Mohamed FB. Diffusion Tensor Imaging of the Cervical and Thoracic Pediatric Spinal Cord in Normal Subjects. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
32. Shiva Shahrampour, Devon M. Middleton, Winston Liu, Govind Nair, Steven Jacobson, Mahdi Alizadeh, John P. Gaughan, Pallav Shah, Scott H. Faro, Laura Krisa, MJ Mulcahey, Mohamed FB. Pediatric Spinal Cord Atrophy Imaging: Quantitative Measures in Normal and Patients with Spinal Cord Injury. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
33. Chris J Conklin, Devon M Middleton, Jürgen Finsterbusch, Mahdi Alizadeh, Scott H Faro, Pallav Shah, Laura Krisa, Rebecca Sinko, Joan Z Delalic, MJ Mulcahey, and Mohamed FB. Inner Field of View Diffusion Kurtosis Imaging (DKI) of the Pediatric Spinal Cord. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
34. Mulcahey MJ, Tian F, Jette A, Vogel LC. Linking pediatric and adult spinal cord injury outcome instruments. Presented at the American Academy for Cerebral Palsy and Developmental Medicine 68th Annual Meeting. Dev Med Child Neurol 2014: 56:37-38 (Suppl 5).   
35. Mulcahey MJ. Psychometric evaluation of the spinal cord independence measures-III. Presented at the 2014 ISCoS Annual Scientific Meeting, Maastricht, Netherlands. Sept. 2-4, 2014.   
36. Mulcahey MJ. Pediatric Spinal Cord Injury Rehabilitation. Presented at the 2014 ISCoS Annual Scientific Meeting, Maastricht, Netherlands. Sept. 2-4, 2014.   
37. Mulcahey MJ, Leah Bent, Lawrence Vogel. Psychometric evaluation of the spinal cord independence measures-III. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014. Topics in Spinal Cord Rehabilitation, 2014;20(suppl 1):64, Award Best Poster (Third Place, tie).   
38. Mulcahey MJ, Tian Feng, Alan Jette. Linking Pediatric and Adult Spinal Cord Injury Measures. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014. Topics in Spinal Cord Rehabilitation, 2014;20(suppl 1):59, Award Best Poster (Third Place, tie).   
39. Mulcahey MJ, Jette A, Kilsa P, Lammertse D, Tulsky D. Innovative Functional Outcomes for Spinal Cord Injury. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014   
40. Mulcahey MJ. Outcomes Instruments for use in Pediatric SCI Rehabilitation. Presented at the American Congress of Rehabilitation Medicine. Orlando, FL. November 2013.   
41. Mulcahey MJ. Rehabilitation of Children with Spinal Cord Injury. Presented at the American Academy of Developmental Medicine and Child Neurology. Milwaukee, WI. October 2013.   
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43. Barakat N, Covington A, Shah P, Faro S, Mulcahey MJ, Mohamed F. Correlation of pediatric spinal cord atropy measures with DTI metrics. American Society of Neuroradiology. San Diego, CA, May 18-23, 2013.   
44. Barakat N, Faro S, Shah P, Gaughan J, Mulcahey MJ, Mohamed F. Wallerian degeneration in pediatric spinal cord using diffusion tensor imaging. American Society of Neuroradiology. San Diego, CA, May 18-23, 2013.   
45. Mulcahey MJ. Neuromuscular Scoliosis in children with SCI. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
46. Mulcahey MJ, Bryden A, Scaffoild G, McClure I, Marino R. Principals of splinting the upper limb in persons with tetraplegia: A two part instructional course. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
47. Mulcahey MJ. Rehabilitation for SCI over the last four decades. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
48. Mulcahey MJ, Costner WJ. Computer adaptive testing: A primer for occupational therapists. Presented at the 2013 Annual Meeting of the American Occupational Therapy Association. San Diego, April 25-29, 2013.   
49. Barakat N, Covington A, Shah P, Faro S, Mulcahey MJ, Mohamed F. Correlation of pediatric spinal cord atropy measures with DTI metrics. American Physician Scientists Association. Chicago IL, April 25-28 2013.   
50. Barkat N, Mulcahey MJ, Gaughan JP, Shah P, Faro S, Samdani AF. Diagnostic Accuracy of DTI for Pediatric SCI. International Society for Magnetic Resonance in Medicine. Salt Lake City, Utah. April 20-26, 2013.   
51. Mulcahey MJ, Mohamed F. Diagnostic accuracy of DTI for pediatric spinal cord injury. 2012.   
52. Mulcahey MJ. Validity of a computer adaptive test of daily routines for child and parent reported outcomes after spinal cord injury. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012. Topics in SCI Rehabilitation 2013;19(1):171.   
53. Mulcahey MJ. Age at injury is not is not the only predictor of scoliosis in children with SCI. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012.   
54. Mulcahey MJ. Training in the international standards for neurological classification of SCI- Current methods and considerations when applied to children. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012.   
55. Mulcahey MJ. Management of the upper limb in children with tetraplegia. International Society Spinal Cord Injury. London. Sept. 2012.   
56. Mulcahey MJ, Mohamed F, Gaughan JP, Baraket N, Samdani A. The diagnostic accuracy of diffusion tensor imaging for spinal cord injury: preliminary analysis of sensitivity and specificity. Topics in Spinal Cord Injury Rehab, 18(supplement 1);202:2012.   
57. Russell H., Smith TF, Kelly E, Mulcahey MJ, Betz RR, Vogel L. An analysis of the Kidcope in pediatric SCI. Topics in Spinal Cord Injury Rehab, 18(supplement 1);252:2012.   
58. Calhoun C & Mulcahey MJ. Pilot study of the evaluation of the validity and reliability of the walking index for SCI II in young children with SCI. Topics in Spinal Cord Injury Rehab, 18(supplement 1);227:2012.   
59. Mulcahey MJ, Calhoun CC, Tian F, Vogel L, Haley SM. Validity of the newly developed computer adaptive tests of mobility, activity and participation. Topics in Spinal Cord Injury Rehab, 18(supplement 1);227:2012.   
  
Grants Awarded Last Five Years   
• The Pediatric Measure of Participation: A staging and Replenishment Study. Shriners Hospitals for Children, Principal Investigator, ($389,000)   
• Metal Artifact Characterization in Spinal Cord injury, Craig H. Nelsen Foundation, Collaborator, $300,000   
• Knowledge Translation of SCI Computer Adaptive Tests and Short Forms. Craig H. Neilsen Foundation, Quality of Life Sustainable Impact Projects, (2015-2018), Principal Investigator, $300,000   
• Pediatric Validation of the International SCI Data Sets. Rick Hansen Foundation. (2015-2018), Principal Investigator, $200,000   
• Patient Reported Outcomes in Duchene Muscular Dystrophy. Department of Defense. Co-Investigator. (2015-2018), $800,000   
• Pediatric Multi-Center Study Evaluation of Notable SCI Outcomes Instruments, Craig H. Neilsen Foundation (2014-2016), Principal Investigator, $600,000   
• Application 1 R01 NS079635-01A1 “Neuroimaging based on DTI as a biomarker for spinal cord injury in children.” National Institutes of Health (NIH), Acute Neural Injury and Epilepsy Study Section (ANIE) (2013-2018), Principal Investigator (multi-PI arrangement), $1,929,382.   
• Linking Pediatric Computer Adaptive Tests with Adult Computer Adaptive Tests, Shriners Hospitals for Children (2014-2016), Principal Investigator, $350,348.   
• Development of a Pediatric Neurorecovery Scale, Craig H. Neilsen Foundation (2013-2015), Consultant, $300,000, Sub-investigator   
• A Multi-Center Study of Computer Adaptive Testing Platform for the Assessment of Physical Function. Shriners Hospitals for Children – 2013-2015, Principal Investigator, $1,300,000.   
• Computer Adaptive Testing Scientific Forum/Spine Care Grant, Orthopaedic Research and Education Foundation (2011-2012), Co-Investigator, $40,000.   
• A Computer Adaptive Testing Platform for the Assessment of Physical Function. Shriners Hospitals for Children (2009-2012), Principal Investigator, $1,065,104.

***Mary Slavin, PhD, PT***  
Boston University

**CV:**  
Peer Review Publications Over Las Five Years   
  
Marino M, Soley-Bori M, Jette AM, Slavin MD, Ryan CM, Schneider JC, Acton A, Amaya F, Rossi M, Soria-Saucedo R, Resnik L, Kazis LE. Measuring the Social Impact of Burns on Survivors. J Burn Care Res. 2017 Jan/Feb;38(1):e377-e383. do   
  
Marino M, Soley-Bori M, Jette AM, Slavin MD, Ryan CM, Schneider JC, Acton A, Amaya F, Rossi M, Soria-Saucedo R, Resnik L, Kazis LE. Measuring the Social Impact of Burns on Survivors   
J Burn Care Res. 2016 Nov/Dec; 37(6):e569-e578   
  
Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Thielen CC, Coster WJ, Jette AM. The Pediatric Measure of Participation (PMoP) short forms. Spinal Cord. 2016 Dec;54(12):1183-1187. PMID: 27184917.   
  
Coster WJ, Ni P, Slavin MD, Kisala PA, Nandakumar R, Mulcahey MJ, Tulsky DS, Jette AM. Differential item functioning in the Patient Reported Outcomes Measurement Information System Pediatric Short Forms in a sample of children and adolescents with cerebral palsy. Dev Med Child Neurol. 2016 Nov; 58(11):1132-1138. PMID: 27098277   
  
Mulcahey MJ, Haley SM, Slavin MD, Kisala PA, Ni P, Tulsky DS, Jette AM. Ability of PROMIS Pediatric Measures to Detect Change in Children with Cerebral Palsy Undergoing Musculoskeletal Surgery. J Pediatr Orthop. 2016 Oct-Nov;36(7):749-56.   
  
Slavin MD, Ni P, Tulsky DS, Kisala PA, Heinemann AW, Charlifue S, Fyffe DC, Graves DE, Marino RJ, Morse LR, Rosenblum D, Tate D, Worobey LA, Dawson MB, Jette AM. The Spinal Cord Injury-Functional Index/Assistive Technology Short Forms. Arch Phys Med Rehabil. 2016 Oct;97(10); 1745-1752. PMID: 27133356   
  
Belliveau T, Jette AM, Seetharama S, Axt J, Rosenblum D, Larose D, Houlihan B, Slavin M, Larose C. Developing artificial neural network models to predict functioning one year after traumatic spinal cord injury. Arch Phys Med Rehabil. 2016 Oct;97(10):1663-1668. PMID: 27208647   
  
Slavin MD, Mulcahey MJ, Calhoun Thielen C, Ni P, Vogel LC, Haley SM, Jette AM. Measuring activity limitation outcomes in youth with spinal cord injury. Spinal Cord. 2016 July;54(7):546-52. PMID: 26572606   
  
Reeve BB, Thissen D, DeWalt DA, Huang IC, Liu Y, Magnus B, Quinn H, Gross HE, Kisala PA, Ni P, Haley S, Mulcahey MJ, Charlifue S, A Hanks R, Slavin M, Jette A, Tulsky DS. Linkage between the PROMIS(®) pediatric and adult emotional distress measures. Qual Life Res. 2016 Apr;25(4):823-33. PMID: 26424169   
  
Fyffe D, Kalpakjian CZ, Slavin M, Kisala P, Ni P, Kirshblum SC, Tulsky DS, Jette AM. Clinical interpretation of the Spinal Cord Injury Functional Index (SCI-FI). J Spinal Cord Med. 2016 Feb 5:1-8. PMID: 26781769   
  
Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Kozin SH, Haley SM, Jette AM. Computerized Adaptive Tests Detect Change Following Orthopaedic Surgery in Youth with Cerebral Palsy. J Bone Joint Surg Am. 2015 Sep 16;97(18):1482-94. PMID: 26378264   
  
Sinha R, Slavin MD, Kisala PA, Ni P, Tulsky DS, Jette AM, Functional Ability Level Development and Validation: Providing Clinical Meaning for Spinal Cord Injury Functional Index Scores. Arch Phys Med Rehabil. 2015 Aug;96(8):1448-57   
  
Jette AM, Slavin MD, Ni P, Kisala PA, Tulsky DS, Heinemann AW, Charlifue S, Tate DG, Fyffe D, Morse L, Marino R, Smith I, Williams S. Development and initial evaluation of the SCI-FI/AT. J Spinal Cord Med. 2015 May;38(3):409-18 PMID: 26010975   
  
Pardasaney PK, Ni P, Slavin MD, Latham NK, Wagenaar RC, Bean J, Jette AM. Computer-adaptive balance testing improves discrimination between community-dwelling elderly fallers and nonfallers. Archives of Physical Medicine and Rehabilitation. 2014 Jul;95(7):1320-1327.   
  
Slavin, MD. Toward a rehabilitation treatment taxonomy: summary of work in progress (Invited Commentary). Physical Therapy. 2014 Mar;94(3):321-2.   
  
Pardasaney PK, Ni P, Slavin MD, Latham NK, Wagenaar RC, Bean J, Jette, A. M (2014). Computer-adaptive balance testing improves discrimination between community-dwelling elderly fallers and nonfallers. Archives of Physical Medicine and Rehabilitation. 95(7): 1320-1327.   
  
Kratz AL, Slavin MD, Mulcahey MJ, Jette AM, Tulsky DS, Haley SM. An examination of the PROMIS® pediatric instruments to assess mobility in children with cerebral palsy. Quality of Life Research. 2013 Dec;22(10):2865-76.   
  
Pardasaney PK, Slavin MD, Wagenaar RC, Latham NK, Ni P, Jette AM. Conceptual limitations of balance measures for community-dwelling older adults. Physical Therapy. 2013 Oct;93(10):1351-68.   
  
Tulsky DS, Jette A, Kisala PA, Kalpakjian C, Dijkers MP, Whiteneck G, Ni P, Kirshblum S, Charlifue S, Heinemann AW, Forchheimer M, Slavin M, Houlihan B, Tate D, Dyson-Hudson T, Fyffe D, Williams S, Zanca J. The SCI-FI: item banks to measure physical functioning of individuals with spinal cord injury. Archives of Physical Medicine and Rehabilitation. 2012 Oct;93(10):1722-32.   
  
Jette AM, Tulsky DS, Ni P, Kisala P, Slavin MD, Dijkers MP, Heinemann AW, Tate D, Whiteneck G, Charlifue S, Houlihan B, Williams S, Kirshblum S, Dyson-Hudson T, Zanca J, Fyffe D. Development and initial evaluation of the Spinal Cord Injury-Functional Index (SCI-FI). Archives of Physical Medicine and Rehabilitation. 2012 Oct;93(10):1733-50.   
  
Pardasaney PK, Latham NK, Jette AM, Wagenaar RC, Ni P, Slavin MD, Bean JF. Sensitivity to change and responsiveness of four balance measures for community-dwelling older adults. Physical Therapy, 2012; 92:388-397.   
  
Presentations Over Last Five Years   
  
CoHSTAR Summer Institute on Health Services Research   
Helped develop and implement this 1-day meeting held at Boston University in June 2016.   
ENACT State of the Science Meeting   
Helped develop and implement this 1-day meeting held in Alexandria Virginia in April 2014.   
  
Face into the Storm – Gaining the Systems Skills Needed to Survive in the Changing Healthcare Environment   
Helped develop and implement a 1-day conference held at Boston University in June 2013.   
  
New Frontiers in Comparative Effectiveness Research   
Helped develop and implement a 1-day conference sponsored by AHRQ and held at Boston University.   
  
R-24 Research Infrastructure Network   
Pre-conference workshop for the American Congress of Rehabilitation Medicine, October 2011   
  
Slavin MD, Mulcahey MJ. Using Pediatric Spinal Cord Injury (PEDI-SCI) Activity Limitation and Participation Short Forms in Clinical Settings (Workshop). International Spinal Cord Society (ISCoS), Vienna September 2016   
  
Slavin MD, Comins J, Ycute-Castro I. Adapting the SCI-FI scales to Spanish language and culture (Workshop on Measuring Physical Functioning with the SCI-FI: Cutting Edge Research findings for clinical and multicultural applications). International Spinal Cord Society (ISCoS), Vienna September 2016   
  
Slavin MD et al. Spinal Cord Injury Functional Index (SCI-FI): ability to detect functional change from rehabilitation discharge to one-year post spinal cord injury (Poster). International Spinal Cord Society (ISCoS), Vienna September 2016   
  
Sinha R, Slavin MD, Tulsky DS, Kisala P, Ni P, Houlihan B, Skeels SE, Zazula J, Jette AM. Spinal Cord Injury Functional Index (SCI-FI): Determining Functional Ability Levels for Persons with Spinal Cord Injury. American Spinal Injury Association (ASIA) annual meeting, San Antonio, Texas, 2014.   
  
Sinha R, Slavin MD, Ni P, Houlihan B, Skeels SE, Zazula J, Jette AM. Development and validation of an approach to interpret Computerized Adaptive Test Scores for Assessing Patient Outcomesat International Society of Pharmacoeconomics and Outcomes Research (ISPOR) annual meeting, Montreal, CA, 2014.   
  
Sinha R, Mulcahey MJ, Slavin MD, Ni P, Jette AM. Responsiveness of Cerebral Palsy Computer adaptive tests (CP CATs) at International Society of Pharmacoeconomics and Outcomes Research (ISPOR) annual meeting, Montreal, CA 2014. (poster)   
  
Slavin, MD, The SCI-FI Measure. New Developments in the SCI-QOL/SCI-FI Measurement System. Symposium presented at the 90th American Congress of Rehabilitation Medicine annual conference, Orlando, FL, November 2013.   
  
Slavin MD, Kratz AL, Tulsky DS, Jette AM, Haley SM. Validation of New Measures of Patient Reported Outcomes for Rehabilitation Medicine. American Congress of Rehabilitation Medicine, Conference Symposium, Vancouver, BC Canada, 2012.   
  
Funding Over Last Five Years   
  
NIH-Women's Health and Disability: Building a Clinically Relevant Outcomes Measure (06/01/15-05/30/20) Kalpakjian (PI) Role: Co-Investigator   
  
Foundation for Physical Therapy Multi-Institutional Center on Health Services Training and Research: CoHSTAR: HS/HP Research Career Training Program (RCTP) (05/01/15-05/30/20) Resnick (PI)   
Role: Co-Director, Evaluation and Dissemination Core   
  
Craig Neilsen Foundation Knowledge Translation (12/01/16-12/01/18)   
Jette (PI)   
Role: Co-Investigator   
  
NIDILRR Advance Rehabilitation Research and Training Fellowship (10/01/12-09/30/17)   
Jette (PI)   
Role: Co-Investigator   
  
NIDRR (DRRP) Burn Injury Participation (9/13 – Current)   
Lewis Kazis, PhD (PI)   
Role: Director of Dissemination   
  
NIH R13 – Small Conference Grant – Capacity Building for Arthritis Research (9/13 – Current)   
Julie Keysor, PhD, PT (PI)   
Role: Develop and implement a conference to advance arthritis research. This conference was held in conjunction with the Arthritis State of the Science Meeting on 4/6/14.   
  
NIDRR – Spinal Cord Injury Model Systems Program – New England Regional Spinal Cord Injury Center (11/11 – Current)   
Alan Jette, PhD, PT (PI)   
Role: Research Scientist   
  
  
NIDRR – Center for Enhancing Activity and Participation among Persons with Arthritis (10/10 – Current)   
Julie Keysor, PT, PhD (PI)   
Role: Director of Dissemination   
  
Social Security Administration (8/09 – Current)   
Contract: Health and Disability Research Institute   
Alan Jette, PT, PhD (PI)   
Role: Provide input for the data collection platform design and train data collectors   
  
NIH – Boston Contemporary Rehabilitation Outcome Network (8/10 – 8/15)   
Contract: Health and Disability Research InstituteAlan Jette, PT, PhD and Ross Zafonte, DO (Co-PIs)   
Role: Co-director of Training and Didactic Core   
  
NIH – PROMIS (Patient-Reported Outcome Measurement Information System (2010-2015)   
Alan Jette, PhD, PT (PI)   
Role: Research Scientist   
  
Centers for Medicare and Medicaid (2008 – 2013) Developing Outpatient Therapy Payment Alternatives. Sub-contract from RTI, International on RTOP No. CMS-07-033 to Alan JetteRole: AM-PAC training   
  
AHRQ – Small Conference Grant – Disability-Related Comparative Effectiveness Research (1/12 – 1/13)   
  
Alan Jette, PhD, PT (PI)   
Role: Develop and implement a conference to advance comparative effectiveness research. This conference was held at Boston University on 6/22/12.

***Christina Thielen, MS PT***  
Thomas Jefferson University

**CV:**  
Peer Review Publications Over Last Five Years.   
  
• Calhoun Thielen C, Sadowsky C, Vogel LC, Taylor H, Davidson L, Bultman J, Gaughan J, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI-II) in Children with Spinal Cord Injury. Spinal Cord, 2016, doi: 10.1038/sc.2016.142   
• Slavin MD, Mulcahey MJ, Calhoun Thielen C, Ni P, Vogel LC, Haley SM, Jette AM. Measuring activity limitation outcomes in youth with spinal cord injury. Spinal Cord, 2015, doi: 10.1038/sc.2015.194.   
• Mulcahey MJ, Calhoun CL, Sinko R, Kelly EH, Vogel LC. The spinal cord independence measure (SCIM)-III self report for youth. Spinal Cord, 2015, doi 10.1038/sc.2015.103.   
• Calhoun CL, Schottler J, Vogel LC. Recommendations for Mobility in Children with Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, 2013, 19(2): 142-151.   
• Bent LM, Mulcahey MJ, Kelley EH, Calhoun CL, Tian F, Ni P, Vogel LC, Haley SM. Validity of Computer Adaptive Tests of Daily Routines for Youth with Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, 2013, 19(2): 104-113.   
• Krisa L, Middleton D, Faro S, Calhoun CL, Mohamed FB, Mulcahey MJ. Cerebral Activation during the test of Spinal Cord Injury Severity in Children: an fMRI Methodological Study. Topics in Spinal Cord Injury Rehabilitation, 2013, 19(2): 121-28.   
• Chafetz RS, Gaughan JP, Calhoun CL, Schottler J, Vogel LC, Betz R, Mulcahey MJ. Relationship between neurological injury and patterns of upright mobility in children with spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 2013, 19(1): 31-41.   
• Calhoun CL, Mulcahey MJ. Pilot Study of Reliability and Validity of the Walking Index for Spinal Cord Injury II (WISCI-II) in Children and Adolescents with Spinal Cord Injury. Journal of Pediatric Rehabilitation, An Interdisciplinary Approach, 2012, 5(4): 275-279.   
• Mulcahey MJ, Calhoun CL, Tian F, Ni P, Vogel L, Haley S. Evaluation of newly developed item banks for child reported outcomes of participation following spinal cord injury. Spinal Cord, 2012, 50(12): 915-19.   
• Mulcahey MJ, Chafetz RS, Santangelo AM, Costello K, Merenda LA, Calhoun CL, et al. Cognitive Testing of the Spinal Appearance Questionnaire with Typically Developing Youth and Youth with Idiopathic Scolisis. Journal of Pediatric Orthopedics, 2011, 31(6): 661-667.   
  
Oral Presentations Over Last Five Years   
  
• Calhoun Thielen C, Sadowsky C, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan, JP, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI-II) in Children with Spinal Cord Injury. Accepted for presentation at the Academy of Spinal Cord Injury Professional Meeting, Nashville TN, September 2016.   
• Calhoun Thielen C, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan, JP, Mulcahey MJ. Performance of the Spinal Cord Independence Measure III (SCIM-III) in Youth with Spinal Cord Injury. Accepted for presentation at the Academy of Spinal Cord Injury Professional Meeting, Nashville TN, September 2016.   
• Calhoun CL, Sadowsky C, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan, JP, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI-II) in Children with Spinal Cord Injury. Accepted for presentation at the American Spinal Injury Association Meeting, Philadelphia PA, April 2016.   
• Calhoun CL, Mulcahey MJ. Field Testing the Walking Index for Spinal Cord Injury II and Spinal Cord Independence Measures III in Children with Spinal Cord Injuries; Accepted for presentation at Howard H Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Orlando, FL, December 2012.   
• Calhoun CL. Mobility in Children with SCI; Accepted for presentation at Howard H Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Orlando, FL, December 2012.   
• Calhoun CL. Power Mobility in Very Young Children; Accepted for presentation at Howard H Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Orlando, FL, December 2012.   
• Calhoun CL, Mulcahey MJ. Pilot Study of the Evaluation of the Validity and Reliability of the Walking Index for Spinal Cord Injury II in Young Children with Spinal Cord Injuries; Accepted for Presentation at the Annual Meeting of the American Spinal Injury Association, Denver, CO, April 2012.

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**The importance of tissue perfusion in acute and chronic spinal cord injury: New Findings in Animal and Human Models**

Wednesday, May 02, 2018 01:45 PM - 03:15 PM

***Laura Krisa, PhD***  
Thomas Jefferson University

**CV:**  
BIOGRAPHICAL SKETCH   
Provide the following information for the Senior/key personnel and other significant contributors.   
Follow this format for each person. DO NOT EXCEED FIVE PAGES.   
  
NAME: Laura Krisa   
eRA COMMONS USER NAME (credential, e.g., agency login) KRISA1   
POSITION TITLE: Assistant Professor   
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)   
INSTITUTION AND LOCATION   
DEGREE   
(if applicable)   
  
Completion Date   
MM/YYYY   
  
FIELD OF STUDY   
  
Millersville University, Millersville, PA   
B.S.   
05/04   
  
Biology   
  
Drexel University, Philadelphia, PA   
Ph.D.   
05/10   
Neuroscience   
  
  
  
  
Shriners Hospitals for Children, Philadelphia, PA   
Post-Doctoral Fellowship   
03/13   
Clinical Neuroscience   
  
  
  
  
A. Personal Statement   
I have the expertise, leadership, training and motivation necessary to successfully carry out the proposed research project. I have background is both basic and clinical neuroscience with a focus on spinal cord injury (SCI). My specific areas of training and experience include functional behavioral recovery and regenerative mechanisms in the rodent model, functional magnetic resonance imaging (fMRI) and diffusion tensor imaging (DTI) to determine the level and severity of SCI in the pediatric SCI population. I have served as a PI and Co-I on university sponsored, agency and NIH funded studies. In addition, I successfully administered two projects including study personnel, proposal planning and execution, budget, and Institutional Review Board (IRB) correspondence. I have collaborated with other researchers among several disciplines, and produced peer-reviewed publications from each project. As a result of these previous experiences, I am aware of the importance of frequent communication among study members and of developing a realistic research plan, timeline, and budget. The current application builds logically on my prior work. My experience in neuroanatomy and imaging together with a team of experts in their respective fields will allow for the success of this project and provide the normative baselines needed to help better classify the degree and severity of abnormalities in the spinal cord.   
  
B. Positions and Honors   
Positions and Employment   
  
2004-2005 Project Manager, Lancaster Laboratories, Lancaster, PA   
2010-2013 Adjunct Assistant Professor, Temple University School of Medicine, Philadelphia, PA   
2010-2013 Postdoctoral Fellow, Shriners Hospitals for Children, Philadelphia, PA   
2010- Scientific Staff, Shriners Hospital for Children, Philadelphia PA   
2013- Assistant Professor, Thomas Jefferson University, Philadelphia PA   
Other Experience and Professional Memberships   
2006- Member, Society for Neuroscience   
2011- Member, American Spinal Injury Association   
• Journal Committee Member. 2013-2015   
• Autonomic Standards Committee Member, 2014-   
• Electronic Communications Committee Chair, 2015-   
2012- Member, International Spinal Cord Society   
2014- Member, Philadelphia Chapter of the Society for Neuroscience   
C. Contribution to Science   
1. My early work addressed the fact that over 50% of SCI’s that occur in the United States involve the cervical spinal cord and impaired function of the upper extremities significantly limits an individual’s ability to carry out activities of daily living. This work focused on forelimb functional recovery in the rodent model of SCI. While there are many treatment/therapies available to treat the individual factors of SCI, it will most likely be a combination that provides the greatest degree of functional recovery. Additionally, the appropriate outcome measure to access functional recovery is as important as the appropriate treatment/therapy. This work outlines the development of a forelimb functional recovery scale in addition to demonstrating the effectiveness of using a combined approach of skilled motor training paired with a pharmacological intervention to improve forelimb functional recovery following cervical SCI. This work was the focus of my graduate dissertation.   
a. Krisa L, Murray M. The implications of injury in the developing nervous system on upper extremity function. J Hand Ther. 2015 Apr-Jun;28(2):101-4; quiz 105. Epub 2015 Jan 17. PMID: 25835256   
  
b. Singh A, Krisa L, Fredrick KL, Sandrow-Feinberg H, Balasubramanian S, Stackhouse SK, Murray M, Shumsky JS. Forelimb Locomotor Rating Scale for Behavioral Assessment of Recovery after Cervical Spinal Cord Injury. J Neurosci Methods, 2014 Apr 15;226:124-31. Epub 2014 Jan 24.   
PMCID: PMC4252014 PMCID: PMC4252014   
  
c. Houle JD., Krisa L, Murray M. Combining cell-based and pharmacologic interventions with behavioral training for chronic recovery from spinal cord injury. Traumatic Brain & Spinal Cord Injury: Challenges & Development. Ed. Cristina Morganti-Kossmann, Ramesh Raghupathi and Andrew Maas. Cambridge University Press   
  
d. Krisa, L, Frederick KL, Canver JC, Stackhouse SK, Shumsky JS, Murray M. Amphetamine Enhanced Motor Training Following Cervical Contusion Injury. J Neurotrauma. 2012 Mar;29(5):971-89 Epub 2011 Sep 19. PMID: 21651384 PMCID: PMC3303099   
  
2. During my graduate training I became aware that in order to move the basic science SCI field forward, scientist need to understand what is clinical relevant and needed. This lead to a change in my research focus from basic to clinical neuroscience where I currently study different techniques to better assess the level and degree of SCI in the pediatric population. This work includes using both advanced imaging techniques (DTI and fMRI) and the assessment of the test used to determine the level and degree of SCI, the International Standards for Neurological Classification of Spinal cord injury (ISNCSI). With a team of collaborators these studies are laying the foundational worked needed to advance the field of pediatric SCI using novel techniques.   
  
a. Saksena S, Middleton DM, Krisa L, Shah P, Faro SH, Sinko R, Gaughan J, Finsterbusch J, Mulcahey MJ, Mohamed FB. Diffusion Tensor Imaging of the Normal Cervical and Thoracic Pediatric Spinal Cord. AJNR Am J Neuroradiol. 2016 Jul 14. Epub ahead of print PMID: 27418470   
  
b. Krisa L, Middleton D, Faro S, Calhoun CL, Mohamed FB, Mulcahey MJ. Cerebral Activation during the Test of Spinal Cord Injury Severity in Children: an fMRI Methodological Study. Top Spinal Cord Inj Rehabil 2013 Spring;19(2):121-8. PMID: 23671382 PMCID: PMC3641914   
  
c. Krisa L, Mulcahey MJ, Gaughan JP, Smith B, Vogel LC. Using a Limited Number of Dermatomes as a Predictor of the 56-Dermatome Test of the International Standards for Neurological Classification of Spinal Cord Injury in the Pediatric Population. Top Spinal Cord Inj Rehabil. 2013 Sping;19(2):114-20. PMID: 23671381 PMCID:PMC3641913   
  
d. Krisa L, Gaughan J, Vogel L, Betz RR, Mulcahey MJ. Agreement of Repeated Motor and Sensory Scores at Individual Myotomes and Dermatomes in Young Persons with Spinal Cord Injury. Spinal Cord. 2013 Jan;51(1):75-81 Epub 2012 Oct 30. PMID: 23147133   
  
3. The effects of cardiovascular dysfunction on cognition following different neurological diseases and disorders in addition to the typically ageing population has become an increasingly important topic is recent years. Cardiovascular dysfunction can result in a decrease in cerebral profusion which can lead to a decrease in cognition. Following SCI, the autonomic nervous system (ANS) plays a critical role in the cardiovascular dysfunction that occurs in subjects with an injury above thoracic level 6 (T6) and thus in the decrease in cognition that can occur. I have received university funds to begin to pilot the effects SCI has on cognition in the adolescent and young adult population. This work will begin to determine the effect cardiovascular dysfunction has on cognition and therefore on quality of life.   
a. Carey A, Julian R, Kristeller K, Leonard P, Palmer S, and Krisa L. (2015) The Cardiovascular and Cerebrovascular Effects on Cognition in Persons with Parkinson’s Disease: A Systematic Review of the Literature. Advances in Parkinson's Disease, 4, 28-42.   
  
Complete list of my published work in My Bibliography   
http://www.ncbi.nlm.nih.gov/sites/myncbi/16O0r4P79rK5d/bibliography/47941437/public/?sort=date&direction=ascending   
  
D. Research Support   
Ongoing Research Support:   
260637 Krisa (PI) 10/01/2013-09/30/2017   
Craig H. Neilsen Foundation   
Validity of the Anorectal Exam in Persons with SCI: an FMRI Study   
  
The goal of this proposal is to use an established functional magnetic resonance imaging (fMRI) and Diffusion Tensor Imaging (DTI) protocol to validate the use of the anorectal examination as a test for SCI severity in children and adolescents with SCI.   
Role: PI   
  
R01 NS079635 Mohamed/Mulcahey (PI) 04/01/2013-03/30/2018   
National Institute of Health (NINDS)   
Neuroimaging Based on DTI as a Biomarker for Spinal Cord Injury in Children   
  
The purpose of this project is to establish neuroimaging criteria based on diffusion tensor imaging (DTI) for evaluating the location and severity of spinal cord injury in children and youths among four ASIA Impairment Scale (AIS) classifications (A, B, C/D and E).   
Role: Co-Investigator   
  
   
385043 Mohamed (PI) 08/31/2016-08/30/2019   
Craig H Neilsen Foundation   
Metal Artifact Characterization in Spinal Cord Injury   
  
These projects is to designed, test and optimize metal suppression magnetic resonance (MR) pulse sequences in spinal implants using in-vitro phantom models and later to evaluate these pulse sequences in spinal cord injury (SCI) patients with metal implants, and establish guidelines for reliably imaging the spinal cord under these conditions.   
Role: Co-Investigator   
  
TJU-2016-2018 Flanders (PI) 12/31/2016-12/30/2018   
Craig H. Neilsen Foundation   
Reliability Assessment of Subjective and Objective Measures of Spinal Cord Injury using the NINDS SCI MRI CDE Instrument   
  
This project will determine the inter and intra-rater reliability of the NINDS MR imaging common data elements when assessed by expert neuroradiologists, and determine the level of agreement of the DTI indices among two different MRI vendors and two field strength using the DTI parameters outlined in the imaging common data elements   
Role: Co-Investigator   
  
Completed Research Support:   
Dean Research Award Krisa (PI) 07/01/2015-06/30/2016   
Thomas Jefferson University School of Health Professionals   
Effects of Autonomic Dysfunction in Spinal Cord Injured Youth and Adolescents   
  
The goal of this proposal is to collect preliminary data to determine if there is an association between daily blood pressure values and cognitive performance in 10 adolescents and young adults with SCI.   
Role: PI

***Linda Jones, PT***  
Craig H. Neilsen Foundation

**CV:**  
Biographical Sketch   
Name: Linda Ann Truett Jones-Norse   
Position Title: Program Officer, Craig H. Neilsen Foundation   
  
A. Personal Statement   
  
A physical therapist by training, I have an established career in spinal cord injury (SCI) research, in clinical trial management and as a Program Officer managing a translation research portfolio. Throughout my career I have had an interest in outcomes research. My master’s thesis, “Reliability and Validity of the Acute Care Index of Function in the Critically Ill”, established psychometrics for a functional outcome measure in the intensive care unit. After leaving clinical practice, I managed the first two cell based SCI studies, developing the skills to oversee large and complex projects. I also learned about the challenges and importance of the appropriate use of functional outcomes in clinical trials and sit on a number of committees and working groups addressing these challenges.   
  
Currently, I manage a translation research portfolio at the Craig H. Neilsen Foundation. In this position, I have the opportunity to see the latest pre-clinical and clinical research directions, identify gaps in the field and consider ways in which they can be addressed.   
  
My current focus through the Spinal Cord Outcomes Partnership Endeavor (SCOPE), Spinal Cord Injury   
Trials Toolkit (SCITT) and Spinal Trials Understanding Design and Implementation (STUDI) is in clinical trial design, outcomes and execution. Through my doctoral dissertation work, I am exploring methods to support the analysis of multiple large spinal cord injury databases.   
  
  
  
B. Positions and Honors   
1990 – 1994 Staff Physical Therapist, Denver General Hospital, Denver, Colorado   
1994 – 2000 Senior Physical Therapist, Denver General Hospital, Denver, Colorado   
1993 – 2002 Coordinator of Intensive Care Unit Physical Therapy, Denver General Hospital, Denver, Colorado   
2000 – 2002 Inpatient Physical Therapy Coordinator, Denver General Hospital, Denver, Colorado   
2002 – 2003 U.S. Study Coordinator, Proneuron Biotechnologies, Denver, Colorado/ Ness-Ziona, Israel   
2003 – 2004 U.S. Clinical Program Manager, Proneuron Biotechnologies, Denver, Colorado/Ness-Ziona, Israel   
2004 – 2006 Clinical Trial Manager, Proneuron Biotechnologies, Denver, Colorado/ Ness-Ziona, Israel   
2006 – 2009 Clinical Trial Manager, Regenerative Medicine, Geron Corporation, Menlo Park, California   
2009 – 2011 Senior Clinical Trial Manager, Regenerative Medicine, Geron Corporation, Menlo Park, California   
2012 – 2013 Clinical Research Consultant, Spinal Cord Injury, Boulder, Colorado   
2013 – Program Officer, Craig H. Neilsen Foundation, Encino, California   
2014 – PhD student, Clinical Sciences, Clinical Investigation track, University of Colorado, Denver, Colorado   
  
Honors   
2008 – 2015 Member, American Spinal Injury Association, Education Committee   
2008 – Member, American Spinal Injury Association, International Standards Committee   
2009 – Member, Spinal Cord Injury Outcomes Endeavor   
2013 – Member, American Spinal Injury Association, International Standards Research Sub-Committee   
2012 – Steering Committee, National Institute of Neurological Disorders and Stroke, Common Data Elements for Spinal Cord Injury   
2014 – Member, International Spinal Cord Injury Society, Scientific Committee   
2015 – Vice Chair, American Spinal Injury Association, Research and Awards Committee   
2016 – Participant in development of a spinal cord injury rehabilitation core dataset   
2017 - Member, Spinal Cord Injury Trials Toolkit Group   
2018 - Member, Spinal Trials Understanding Design and Implementation   
  
C. Contributions to Science   
  
Clinical trials and development of tools to support clinical trials   
As a field, SCI is still developing in terms of initiating and completing clinical trials of drugs and biologics. I managed the first cell-based trial in spinal cord injury. Although the trial findings were equivocal, the study group disseminated trial findings after the study was closed, so the spinal cord injury community could benefit from the lessons learned. I led the publication on pragmatics, recruitment and demographics and participated in the analyses and publication of the safety and efficacy data. I subsequently managed another cell-based trial, and through my work with both of these trials, became aware of the critical need for tools to support clinical trials. I served on the Steering Committee and two working groups for the National Institute of Neurological Disorders and Stroke, Common Data Elements for SCI, recommending and, where needed, developing common tools/elements for use in SCI clinical trials. Recently, I contributed to the development of a novel linear scale for SCI, which uses items from existing measures to measure volitional motor performance following SCI.   
  
2010 Jones L, Lammertse D, Charlifue S, Kirshblum S, Apple D, Ragnarrson K, Poonian D, Betz R, Knoller N, Heary R, Choudri T, Jenkins III A, Falci S, Snyder D. A phase 2 autologous cellular therapy trial in patients with acute complete spinal cord injury: Pragmatics, Recruitment and Demographics. Spinal Cord. 2010;48:799-807. PMID: 20386555   
  
2012 Lammertse DP, Jones LA, Charlifue SB, Kirshblum SC, Apple DF, Ragnarsson KT, Falci SP, Heary RF, Choudhri TF, Jenkins AL, Betz RR, Poonian D, Cuthbert JP, Jha A, Snyder DA, Knoller N. Autologous incubated macrophage therapy in acute, complete spinal cord injury: results of the phase 2 randomized controlled multicenter trial. Spinal Cord. 2012;50(9):661-71. PMID:22525310   
  
2015 Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord. 2015 Apr;53(4):265-77. PMCID:PMC4393777   
  
2017 Reed R, Mehra M, Kirshblum S, Maier D, Lammertse D, Blight A, Rupp R, Jones L, Abel R, Weidner N, EMSCI Study Group, SCOPE, Curt A, Steeves J. Spinal cord ability ruler: an interval scale to measure volitional performance after spinal cord injury. Spinal Cord. 2017. (Epub ahead of print) PMID: 28322239   
  
  
Spinal cord injury assessment   
The most commonly used tool for assessing patients with SCI (International Standards for Neurological Classification of Spinal Cord Injury- ISNCSCI) was developed as a classification tool but is used in SCI research and clinical care. Despite its common use, there are challenges when using ISNCSCI in research and clinical settings. I first participated in a publication on the reliability and validity of ISNCSCI in 2008, based on findings of a clinical trial training that I organized. ISNCSCI was also assessed for use in clinical trials for thoracic SCI, based on a retrospective review of a clinical trial database. I was then asked to join the committee that considers revisions to ISNCSCI, from which multiple revisions and publications have ensued. I currently sit on the International Standards Research Sub-Committee, which specifically addresses the use of ISNCSCI for research.   
  
2008 Marino, R, Jones L, Kirshblum S, Tal Y, Dasgupta A. Reliability of the motor and sensory examination of the international standards for neurological classification of spinal cord injury. J Spinal Cord Med. 2008;31(2):166-170. PMID: PMC2565479   
  
2009 Harrop J, Maltenfort M, Geisler F, Coleman W, Jones L, Wirth E. Traumatic thoracic ASIA A examinations and potential for clinical trials. Spine. 2009;34:2525-2529. PMID:19927102   
  
2011 Kirshblum S, Burns S, Biering-Sorensen F, Donovan W, Graves D, Jha A, Johansen M, Jones L, Krassioukov, A, Mulcahey, MJ, Schmidt-Read M, Waring W. International standards for neurological classification of spinal cord injury (Revised 2011). J Spinal Cord Med. 2011;34(6):535-546. PMCID: PMC3232636   
  
2014 Kirshblum SC, Biering-Sorensen F, Betz R, Burns S, Donovan W, Graves DE, Johansen M , Jones L, Mulcahey MJ, Rodriguez GM, Schmidt-Read M, Steeves JD, Tansey K, Waring W. International Standards for Neurological Classification of spinal cord injury: cases with classification challenges. J Spinal Cord Med. 2014;37(2):120-7. PMCID:PMC4066420   
  
  
History of recovery of neurological function from spinal cord injury databases   
Examination of existing databases has provided the opportunity to understand the history of natural recovery and consider clinical trial endpoints based on these data. Additionally, these data were used to develop novel statistical approaches to stratify patient groups by common characteristics, to improve clinical trial design. I have contributed to a series of publications using data from the European Multicenter Study about Spinal Cord Injury, resulting in the recommendation of a clinical trial endpoint in cervical sensorimotor complete SCI. The proposed Center for Large Data Research and Data Sharing in Rehabilitation project to develop a crosswalk between two SCI functional outcome measures is a critical step to expanding this prior work by including data from different databases and developing clinical trial endpoints for diverse SCI populations.   
  
2011 Steeves J, Kramer J, Fawcett J, Cragg J, Lammertse D, Blight A, Marino R, Ditunno J, Coleman W, Geisler F, Guest J, Jones L, Burns S, Schubert M, van Hedel H, Curt A for the EMSCI Study Group. Extent of spontaneous motor recovery after traumatic cervical sensorimotor complete spinal cord injury. Spinal Cord. 2011:49(2):257-265. PMID: 20714334   
  
2011 Zariffa J, Kramer J, Fawcett J, Lammertse D, Blight A, Guest J, Jones L, Burns S, Schubert M, Bolliger M, Curt A, Steeves J. Characterization of neurological recovery following traumatic sensorimotor complete thoracic spinal cord injury. Spinal Cord. 2011 Mar;49(3):463-71. PMID: 20938451   
  
2012 Steeves JD, Lammertse DP, Kramer JL, Kleitman N, Kalsi-Ryan S, Jones L, Curt A, Blight AR, Anderson KD. Outcome measures for acute/subacute cervical sensorimotor complete (AIS-A) spinal cord injury during a phase 2 clinical trial.Top Spinal Cord Inj Rehabil. 2012 Winter;18(1):1-14. PMCID:   
PMC3519288   
  
2015 Tanadini LG, Hothorn T, Jones LA, Lammertse DP, Abel R, Maier D, Rupp R, Weidner N, Curt A, Steeves JD. Toward inclusive trial protocols in heterogeneous neurological disorders: prediction-based stratification of participants with incomplete cervical spinal cord injury.Neurorehabil Neural Repair. 2015 Oct;29(9):867- 77. PMID:25644238

***Ona Bloom, PhD***  
The Feinstein Institute for Medical Research

**CV:**  
OMB No. 0925-0001 and 0925-0002 (Rev. 10/15 Approved Through 10/31/2018)   
BIOGRAPHICAL SKETCH   
Provide the following information for the Senior/key personnel and other significant contributors.   
Follow this format for each person. DO NOT EXCEED FIVE PAGES.   
NAME: BLOOM, ONA E.   
eRA COMMONS USER NAME (credential, e.g., agency login): OBLOOM   
POSITION TITLE: Associate Professor, The Feinstein Institute for Medical Research; The Hofstra Northwell School of Medicine   
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)   
INSTITUTION AND LOCATION   
DEGREE   
(if applicable)   
  
Completion Date   
MM/YYYY   
  
FIELD OF STUDY   
  
Barnard College   
B.A.   
05/92   
History   
The Rockefeller University   
Ph.D.   
06/02   
Neurobiology   
Yale University School of Medicine   
Postdoctoral fellow   
12/07   
Cell Biology/ Immunology   
  
A. Personal Statement   
The goal of my research program is to identify mechanisms that promote functional recovery and overall health in persons with traumatic spinal cord injury (SCI), a devastating injury affecting ~17,000 Americans annually. Using tools of immunology, cell biology, biochemistry and genomics, my lab investigates factors both intrinsic and extrinsic to neurons that influence recovery from SCI, in humans, and in model organisms. As infections are the leading cause of death among persons with SCI and inflammation promotes to many common medical consequences of SCI, a major focus of my lab is to investigate roles of the immune system in SCI. My lab discovered elevated MIF, HMGB1 and other inflammatory mediators, as well as alterations in systemic leukocytes, in individuals with acute or chronic SCI1-4. As Director for Research in the Dept. of PM&R, and director of SCI research at the ACS-verified level one trauma center at North Shore University Hospital, I am deeply committed to fostering interactions between the scientific and clinical communities in biomedical research. Currently, I am leading a team of SCI clinicians and scientists in a multi-site prospective study of biomarkers of spontaneous recovery in persons with SCI, supported by the US Dept. of Defense and New York State. We have also initiated a pilot study in children with traumatic SCI, where even less is known about biological responses and are conducting outcomes research in individuals with SCI who participate in a physical activity/wellness program. I recently gained an affiliation with the VA’s National Center for the Medical Consequences of SCI (James J. Peters VAMC, Bronx, NY), where I am pursuing collaborative projects to modify immune responses in persons living with SCI. My lab also received NIH funding to perform preclinical mechanistic studies of regeneration after SCI in lamprey, an animal that can accomplish this spontaneously. I am well qualified to provide support for the session proposed here.   
1. Papatheodorou A, Stein AB, Bank M, Sison CP, Gibbs K, Davies P, Bloom O. High-Mobility Group Box 1 (HMGB1) is Elevated Systemically in Persons with Acute or Chronic Traumatic Spinal Cord Injury. J Neurotrauma 2017; 34(3):746-754. PMID: 27673428   
2. Bank M, Stein A, Sison C, Glazer A, Jassal N, McCarthy D, Shatzer M, Hahn B, Chugh R, Davies P, Bloom O. Elevated Circulating Levels of the Pro-Inflammatory Cytokine Macrophage Migration Inhibitory Factor (MIF) in Individuals with Acute Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation, 2015; 96(4):633-44. PMID: 25461821   
3. Monahan R, Stein A, Gibbs K, Bank M, Bloom O. Circulating T cell subsets are altered in individuals with chronic spinal cord injury. Immunological Research 2015 Dec. 63(1-3):3-10. PMID: 26440591   
4. Stein A, Panjwani A, Sison C, Rosen L, Chugh R, Metz C, Bank M, Bloom O. Pilot study: elevated circulating levels of the Pro-Inflammatory Cytokine Macrophage Migration Inhibitory Factor (MIF) in Patients with Chronic Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation, 2013; 94(8):1498-507. PMID: 23618747   
  
B. Positions and Honors   
  
Positions and Employment   
1995-2001 Graduate Fellow, The Rockefeller University, Laboratory of Molecular and Cellular Neuroscience, Mentor: Professor Paul Greengard, NY, NY   
2002-2006 Postdoctoral Fellow, Yale University School of Medicine, Dept. of Cell Biology and Immunology, Laboratory of Professor Ira Mellman, New Haven, CT   
2006-2007 Associate Research Scientist, Yale University School of Medicine, New Haven, CT   
2008-2015 Assistant Investigator, The Feinstein Institute for Medical Research, Manhasset, NY   
2009-present Assistant Professor, Elmezzi Graduate School of Molecular Medicine, Feinstein Institute for   
Medical Research   
2011-2015 Assistant Professor, Dept. of Physical Medicine and Rehabilitation (PM&R) and Dept. of Molecular Medicine, The Hofstra Northwell School of Medicine, Hempstead, NY   
2011-present Director of Research for Residents, Dept. of PM&R, Northwell Health   
2013-present Director of Research, Dept. of PM&R, Northwell Health   
2015-present Associate Investigator, The Feinstein Institute for Medical Research, Manhasset, NY   
2015-present Associate Professor, Dept. of PM&R and Dept. of Molecular Medicine, The Hofstra Northwell School of Medicine, Hempstead, NY   
2016-present WOC Employee, RR&D National Center of Excellence for the Medical Consequences of Spinal   
Cord Injury, James J. Peters VA Medical Center, Bronx, NY   
  
Honors   
1997-1998 The Rockefeller University-Karolinska Institute Exchange Program   
2002-2003 NIH National Research Service Award (5-T32-AI-07019), awarded to Section of   
Immunobiology, Yale University School of Medicine   
2003-2006 Cancer Research Institute Postdoctoral Fellowship   
2009 Ann E. Kammer Memorial Fellowship, Lucy B. Lemann Fund Fellowship Awardee, Visiting Researcher, The Marine Biological Laboratory (MBL), Woods Hole, MA   
2010-2011 Evans Research Awardee, Visiting Researcher, MBL, Woods Hole, MA   
2012-2013 Grass Faculty Fellow, Visiting Researcher, MBL, Woods Hole, MA   
2014 First Place Best Poster Presentation, American Spinal Injury Association (ASIA) Annual Meeting, May 16, 2014   
2014 Alison Conyngham Neisloss Collaborative Women in Science Award, Advancing Women in Science and Medicine (AWSM), The Feinstein Institute for Medical Research, May 17, 2014   
2014 Outstanding Research in the Field of Physical Medicine and Rehabilitation Award, New York   
Society of Physical Medicine and Rehabilitation   
2014 Eugene and Millicent Bell Fellowship Fund in Tissue Engineering Awardee, Visiting Researcher, MBL, Woods Hole, MA   
2015 Americana Manhasset Collaboration Award, AWSM, The Feinstein Institute for Medical Research   
2016 Innovation Award, AWSM, The Feinstein Institute for Medical Research   
2017 Educational Advancement Award, AWSM, The Feinstein Institute for Medical Research   
C. Contribution to Science   
  
1. Molecular Anatomy of Synapses: Doctoral and Postdoctoral studies   
My doctoral studies, performed in the laboratory of Dr. Paul Greengard (Nobel Laureate, 2000) at The Rockefeller University, involved analysis of the synaptic vesicle cycle in reticulospinal synapses of the lamprey spinal cord2-3. My postdoctoral studies in cell biology and immunology were performed in the laboratory of Dr. Ira Mellman, then at the Yale University School of Medicine, and found that spinophilin, a protein discovered in the Greengard laboratory, also plays a role at the immunological synapse in antigen presentation1. This training is where I gained expertise in neurobiology, cell biology and immunology.   
  
1. Bloom O, Unternaehrer J, Jiang A, Shin J-S, Delamarre L, Allen P, Mellman I. Spinophilin participates in information transfer at immunological synapses, J. Cell Biol. 2008 April 14; 181 (2): 203-211. PMC2315669 [Highlighted in Science Signaling: J. F. Foley, From Dendrite to Dendritic. Sci. Signal.1, ec152 (2008) and the Dana Foundation's Immunology in the News, July 2008].   
2. Bloom O, Evergren E, Tomilin N, Kjaerulff O, Low P, Brodin L, Pieribone VA, Greengard P,   
Shupliakov O. Colocalization of synapsin and actin during synaptic vesicle recycling. J Cell Biol. 2003 May 26;161(4):737-47. PMC2199372   
3. Shupliakov O, Bloom O, Gustafsson JS, Kjaerulff O, Low P, Tomilin N, Pieribone VA, Greengard P, Brodin L. Impaired recycling of synaptic vesicles after acute perturbation of the presynaptic actin cytoskeleton. Proc Natl Acad Sci U S A. 2002 Oct 29; 99(22):14476-81. PMC137908   
  
2. Identifying Biological Responses to SCI in Humans   
Most studies of biological responses to SCI have focused on intraspinal events in preclinical (rodent) models, while biological responses to SCI in humans remain largely unknown. As responses may differ between preclinical models and clinical settings, where injuries are much more heterogeneous, this gap in knowledge limits the ability to predict and promote functional recovery for individuals with SCI. One well-known biological cascade triggered by SCI in all mammalian species studied is inflammation, which has been proposed to inhibit both regeneration and functional recovery after SCI. It is increasingly clear that multiple aspects of immune system function are altered by SCI, on both acute (days-weeks) and chronic (years) time scales, within the spinal cord and systemically. To establish my translational SCI research program, I initiated a productive collaboration with Matthew Bank MD, Director, ACS Verified Level 1 Trauma Center, North Shore University Hospital, and Adam Stein MD, Chairman, Dept. of PM&R, Zucker School of Medicine. With these outstanding collaborators, I have identified a subset of elevated systemic inflammatory mediators, including macrophage migration inhibitory factor (MIF) in individuals with either acute1, 4 or chronic SCI2-4. Based on these pilot studies, I am currently leading a multi-site prospective study of biomarkers of spontaneous recovery in persons with SCI, supported by the US Dept. of Defense (SC140099).   
  
1. Bank M, Stein A, Sison C, Glazer A, Jassal N, McCarthy D, Shatzer M, Hahn B, Chugh R, Davies P, Bloom O. Elevated Circulating Levels of the Pro-Inflammatory Cytokine Macrophage Migration Inhibitory Factor (MIF) in Individuals with Acute Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation, 2015; Apr; 96:633-44, PubMed PMID: 25461821 2014   
2. Stein A, Panjwani A, Sison C, Rosen L, Chugh R, Metz C, Bank M, Bloom O. Elevated circulating levels of the pro-inflammatory cytokine macrophage migration inhibitory factor (MIF) in chronic spinal cord injury (SCI) patients. Archives of Physical Medicine and Rehabilitation 2013 Aug; 94(8):1498-507. PMID: 23618747.   
3. Monahan R, Stein A, Gibbs K, Bank M, Bloom O. Circulating T cell subsets are altered in individuals with chronic spinal cord injury. Immunological Research 2015 Dec. 63(1-3):3-10. PMID: 26440591   
4. Papatheodorou A, Stein AB, Bank M, Sison CP, Gibbs K, Davies P, Bloom O. High-Mobility Group Box 1 (HMGB1) is Elevated Systemically in Persons with Acute or Chronic Traumatic Spinal Cord Injury. J Neurotrauma 2016 Sep 27. PMID: 27673428   
  
3. Defining conserved molecular pathways underlying successful regeneration after SCI   
The ability to regenerate and recover function after SCI varies widely across species. The lamprey is a jawless vertebrate with a spinal cord that shares many basic traits with mammals. However, unlike mammals, lampreys exhibit the remarkable ability to spontaneously regenerate and recover function after SCI. We reasoned that neuronal regeneration, like neuronal function, relies on fundamental pathways conserved across species. Therefore, understanding the molecular mechanisms promoting functional recovery from SCI in the lamprey, a vertebrate that can achieve this spontaneously, will help us to identify how to promote such responses in less regenerative species, such as mammals1, 3. We have just completed the first next generation sequencing study performed to obtain the gene expression profile of the central nervous system of uninjured lampreys, and over the time course of their anatomical and functional recovery from SCI. Data from these studies, which was supported by NINDS (R03NS078519-01A1), contributed to annotation of the lamprey genome and RNA-Seq reads were mapped against gene models from the genome2. A manuscript describing the results of this study is currently in resubmission.   
  
1. Bloom O. Non-mammalian model systems for studying neuro-immune interactions after spinal cord injury. Experimental Neurology, Aug; 258:130-40, 2014.   
2. Smith JJ, Kuraku S, Holt C, Sauka-Spengler T, Jiang N, Campbell MS, Yandell MD, Manousaki T, Meyer A, Bloom OE, Morgan JR, Buxbaum JD, Sachidanandam R, Sims C, Garruss AS, Cook M, Krumlauf R, Wiedemann LM, Sower SA, Decatur WA, Hall JA, Amemiya CT, Saha NR, Buckley KM, Rast JP, Das S, Hirano M, McCurley N, Guo P, Rohner N, Tabin CJ, Piccinelli P, Elgar G, Ruffier M, Aken BL, Searle SM, Muffato M, Pignatelli M, Herrero J, Jones M, Brown CT, Chung-Davidson YW, Nanlohy KG, Libants SV, Yeh CY, McCauley DW, Langeland JA, Pancer Z, Fritzsch B, de Jong PJ, Zhu B, Fulton LL, Theising B, Flicek P, Bronner ME, Warren WC, Clifton SW, Wilson RK, Li W. Sequencing of the sea lamprey (Petromyzon marinus) genome provides insights into vertebrate evolution. Nat Genet. 2013 Apr; 45(4): 415-21.   
3. Smith J, Morgan J, Zottoli S, Smith P, Buxbaum J, Bloom O. Regeneration in the Era of Functional Genomics and Gene Network Analysis. The Biological Bulletin, 221(1): 18-34.   
  
A complete list of Published Work in My Bibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/ona.bloom.1/bibliograpahy/40106015/public/?sort=date&direction=descending   
  
D. Research Support   
  
Ongoing Research Support   
9/1/2017-8/21/2020 NY State Spinal Cord Injury Research Board, DOH01-FLLOW2-2016-00015 (Role: PI/Mentor) This is a postdoctoral fellowship grant to support the salary of a fellow to participate in clinical research projects related to SCI.   
  
3/1/2017 - 2/28/2022 NY State Spinal Cord Injury Research Board, DOH01-ISSCI6-2016-00018 (Role: PI) Institutional Support for SCI Research, round 6   
This is a grant to support expansion of 3 separate, ongoing projects that aim to improve our understanding of factors that influence physical recovery and wellness in persons with spinal cord injury (SCI). The projects are: (1) “Biomarkers of Spontaneous Recovery from Traumatic SCI,” (2) “Biomarkers in Pediatric Spinal Cord Injury/Abnormalities,” and (3)”Strive for Wellness Research Outcomes,” Project 1 is supported by the US DOD; funding is provided here for non-overlapping aims. Projects 2 and 3 are not supported by other external funds.   
  
9/1/17-8/31/2022 NIAMS, NIH, 7R01AR069668 (PI: Chahine, Role: Co-I) Mechanobiology of inflammation in the intervertebral disc. Disability and pain from degenerated intervertebral discs (IVD) affects >40% of U.S adults, costs >$100 billion annually and the etiology is unknown. The aim of this study is to investigate the mechanobiology of the inflammatory cytokine high mobility group box 1 protein (HMGB1) signaling in the pathophysiology and mechanotransduction of the intervertebral disc.   
  
09/30/2015 - 09/29/2019 US Dept. of Defense, SC140099 (Role: PI) Biomarkers of Spontaneous Recovery from Traumatic Spinal Cord Injury   
The goal of this project is to build an easy-to-implement, predictive model of functional recovery after SCI that incorporates biomarkers related to inflammation. We will perform a multi-site, prospective, longitudinal study to measure circulating biochemical responses and functional recovery throughout the 1st year after SCI, within the same individuals. Data will be used to derive a predictive, multiscale model of functional recovery after SCI. Biological data collection time points are: once within 0-3 days post injury (dpi), and then at 3, 6, and 12 months after SCI.   
  
Completed Research Support   
02/01/2016 - 08/31/2016 NY State Spinal Cord Injury Research Board-Institutional Support, DOH01-C30842GG-3450000, (Role: PI)   
This support was used to expand the biological outcome measures and acute time points of biological sample collection within the DOD project SC140099, which will enhance the information gained and hence the impact of the study. Specifically, these funds will support additional acute biological sample collection not funded by the DOD and to expand the analysis of biological samples to include flow cytometry characterization of peripheral leukocytes.   
  
07/01/2013 - 06/30/2015 Craig H Neilsen Foundation (Role: PI) Contributions of inflammatory mediators in chronic SCI. This study used high-throughput, multiplex immunoassays, functional genomics and flow cytometry to identify features of an altered immunological status in individuals with chronic SCI and examined correlations of these mediators with functional outcomes and medical consequences of SCI.   
  
7/1/2014 - 7/1/2015 NY State Empire Clinical Research Investigator Program Biomarkers in Traumatic Spinal Cord Injury. (Role: PI) This training grant supported the salary of 2 clinical research fellows to perform research with the goal of increasing participation of clinicians in research within NY State. The fellows participated in studies of inflammation in SCI patients ongoing in the Bloom Lab.   
  
09/01/2012-07/31/2014 NINDS, NIH R03NS078519-01A1 Transcriptome Analysis of a Regenerating Vertebrate Spinal Cord After Injury. (Role: PI) The goal of this project is to discover the genes expressed during successful anatomical and functional recovery after SCI in the lamprey, an animal that can accomplish this robustly. The insights gained in this study will help us to understand how to promote these processes in other species, such as mammals.   
  
07/01/2010 - 06/30/2015 NIAMS, NIH R01AR057084 Toward a new approach to SLE therapy   
(PI: Diamond, B, Role: Co-I) This was a grant to develop small molecules that function like a peptide mimetope of DNA, the most common autoantigen in lupus, but can be orally administered and will reduce the symptoms of lupus, both in the central nervous system and the periphery.

***Marios Papadopoulos, MD,FRCS(SN)***  
St. George’s University Hospitals

**CV:**  
  
BIOGRAPHICAL SKETCH   
  
NAME: Marios C. Papadopoulos   
POSITION TITLE: Professor of Neurosurgery, St. George’s, University of London, U.K.   
EDUCATION/TRAINING   
INSTITUTION AND LOCATION   
DEGREE   
COMPLETION YEAR   
  
FIELD OF STUDY   
  
University of Cambridge, U.K.   
BA   
1990   
Medical Sciences   
University of Oxford, U.K.   
BM BCh   
1993   
Clinical Medicine   
University of Cambridge, U.K.   
MD   
1997   
Neuroscience   
Royal College of Surgeons, U.K.   
FRCS   
1998   
Surgery   
Royal College of Surgeons, U.K.   
FRCS (SN)   
2002   
Neurosurgery   
  
A. Personal Statement   
I am a Professor of Neurosurgery at the University of London (St. George’s) in the U.K. My research interests are spinal cord injury, brain and spinal cord edema and aquaporin water channel proteins. I have a clinical practice in general neurosurgery with subspecialty interests in spinal and vascular neurosurgery.   
  
B. Positions and Honors   
I completed my neurosurgery residency training in London, U.K. In 2002-6, I was a Wellcome Trust Clinician Scientist Fellow working on aquaporins in collaboration with Alan Verkman at U.C.S.F. I became Senior Lecturer in Neurosurgery at St. George’s in 2006 and Professor in 2013.   
  
C. Contributions to Science   
SPINAL CORD INJURY   
Developed techniques to monitor pressure and microdialysis from the injury site in patients with acute spinal cord injury (SCI)   
Introduced novel concepts e.g. intraspinal pressure (ISP), spinal cord perfusion pressure (SCPP), pressure reactivity index (sPRx) and optimum SCPP.   
Found that after SCI, the injury site is ischemic and the optimum SCPP varies between patients   
Showed that the injured cord is compressed against the dura, which causes raised ISP   
Proposed expansion duroplasty as a novel treatment for SCI.   
  
AQUAPORINS   
Showed that AQP4 plays a key role in brain and spinal cord edema in mouse models of brain tumor, meningitis and spinal cord injury.   
Described a role for aquaporins in cell migration including astrocyte cell migration during glial scarring.   
Developed mouse model of neuromyelitis optica, a disease caused by autoantibodies against AQP4.   
Characterized the pathophysiology of neuromyelitis optica and proposed novel treatments.   
  
SELECTED PUBLICATIONS   
Spinal cord injury   
Chen S, Smielewski P, Czosnyka M, Papadopoulos MC, Saadoun S (2017). Continuous Monitoring and Visualization of Optimum Spinal Cord Perfusion Pressure in Patients with Acute Cord Injury. J Neurotrauma [EPub]   
Saadoun S, Chen S, Papadopoulos MC (2017). Intraspinal pressure and spinal cord perfusion pressure predict neurological outcome after traumatic spinal cord injury. J Neurol Neurosurg Psychiatry 88:452-453.   
Saadoun S, Papadopoulos MC (2016). Spinal cord injury: is monitoring from the injury site the future? Crit Care 2016;20(1):308.   
Phang I., Zoumprouli A, Papadopoulos MC, Saadoun S (2016). Microdialysis to optimize cord perfusion and drug delivery in spinal cord injury. Ann Neurol 80:522-31.   
Phang I., Zoumprouli A, Saadoun S, Papadopoulos MC (2016). Safety profile and probe placement accuracy of intraspinal pressure monitoring for traumatic spinal cord injury. J Neurosurg Spine 25:398-405.   
Phang I, Werndle MC, Saadoun S, Varsos GV, Czosnyka M, Zoumprouli A, Papadopoulos MC (2015). Expansion duroplasty reduces intraspinal pressure and increases spinal cord perfusion pressure after traumatic spinal cord injury: J Neurotrauma 32;865-74.   
Werndle MC, Saadoun S, Phang I, Czosnyka M, Varsos G, Czosnyka Z, Smielewski P, Jamous A, Bell BA, Zoumprouli A, Papadopoulos MC (2014). Monitoring of spinal cord perfusion pressure in acute spinal cord injury. Crit Care Med 42:646-55.   
Saadoun S, Bell BA, Verkman AS, Papadopoulos MC (2008). Greatly improved neurological outcome after spinal cord compression injury in AQP4-deficient mice. Brain 131:1087-98.   
  
Aquaporins   
Verkman AS, Anderson MO, Papadopoulos MC (2014). Aquaporins, important but elusive drug targets. Nature Rev Drug Discov 13:259-77.   
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Saadoun S, Papadopoulos MC, Watanabe H, Yan D, Manley GT, Verkman AS (2005). Involvement of aquaporin-4 in astroglial cell migration and glial scar formation. J Cell Sci 118:5691-8.   
Papadopoulos MC, Verkman AS (2005). Aquaporin-4 gene disruption in mice reduces brain swelling and mortality in pneumococcal meningitis. J Biol Chem 280:13906-12.   
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Binder DK, Papadopoulos MC, Haggie PM, Verkman AS (2004). In vivo measurement of brain extracellular space diffusion by cortical surface photobleaching. J Neurosci 24:8049-56.   
Papadopoulos MC, Manley GT, Krishna S, Verkman AS (2004). Aquaporin 4 facilitates reabsorption of excess fluid in vasogenic brain edema. FASEB Journal 18:1291-3.   
  
D. Additional Information: Research Support and/or Scholastic Performance   
  
Current grants: 2017-20, £660,000, UK Stem Cell Foundation, Developing olfactory ensheathing cell implantation as a treatment for spinal cord injury in the U.K., PI: S Saadoun, MC Papadopoulos   
Grant, 2015-8, €440,000, Wings for Life, Monitoring for spinal cord injury, PI: S Saadoun, MC Papadopoulos   
  
Selected invited lectures: 2017: Charles Tator Lecture at American Association of Neurological Surgeons’ meeting in Los Angeles, Spinal Cord Injury Lecture at Hellenic Spinal Surgery Congress in Athens   
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***Christopher West, PhD***  
Icord (International Collaboration on Repair Discoveries)

**CV:**  
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The Miami Project to Cure Paralysis

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a. Saksena S, Middleton DM, Krisa L, Shah P, Faro SH, Sinko R, Gaughan J, Finsterbusch J, Mulcahey MJ, Mohamed FB. Diffusion Tensor Imaging of the Normal Cervical and Thoracic Pediatric Spinal Cord. AJNR Am J Neuroradiol. 2016 Jul 14. Epub ahead of print PMID: 27418470   
  
b. Krisa L, Middleton D, Faro S, Calhoun CL, Mohamed FB, Mulcahey MJ. Cerebral Activation during the Test of Spinal Cord Injury Severity in Children: an fMRI Methodological Study. Top Spinal Cord Inj Rehabil 2013 Spring;19(2):121-8. PMID: 23671382 PMCID: PMC3641914   
  
c. Krisa L, Mulcahey MJ, Gaughan JP, Smith B, Vogel LC. Using a Limited Number of Dermatomes as a Predictor of the 56-Dermatome Test of the International Standards for Neurological Classification of Spinal Cord Injury in the Pediatric Population. Top Spinal Cord Inj Rehabil. 2013 Sping;19(2):114-20. PMID: 23671381 PMCID:PMC3641913   
  
d. Krisa L, Gaughan J, Vogel L, Betz RR, Mulcahey MJ. Agreement of Repeated Motor and Sensory Scores at Individual Myotomes and Dermatomes in Young Persons with Spinal Cord Injury. Spinal Cord. 2013 Jan;51(1):75-81 Epub 2012 Oct 30. PMID: 23147133   
  
3. The effects of cardiovascular dysfunction on cognition following different neurological diseases and disorders in addition to the typically ageing population has become an increasingly important topic is recent years. Cardiovascular dysfunction can result in a decrease in cerebral profusion which can lead to a decrease in cognition. Following SCI, the autonomic nervous system (ANS) plays a critical role in the cardiovascular dysfunction that occurs in subjects with an injury above thoracic level 6 (T6) and thus in the decrease in cognition that can occur. I have received university funds to begin to pilot the effects SCI has on cognition in the adolescent and young adult population. This work will begin to determine the effect cardiovascular dysfunction has on cognition and therefore on quality of life.   
a. Carey A, Julian R, Kristeller K, Leonard P, Palmer S, and Krisa L. (2015) The Cardiovascular and Cerebrovascular Effects on Cognition in Persons with Parkinson’s Disease: A Systematic Review of the Literature. Advances in Parkinson's Disease, 4, 28-42.   
  
Complete list of my published work in My Bibliography   
http://www.ncbi.nlm.nih.gov/sites/myncbi/16O0r4P79rK5d/bibliography/47941437/public/?sort=date&direction=ascending   
  
D. Research Support   
Ongoing Research Support:   
260637 Krisa (PI) 10/01/2013-09/30/2017   
Craig H. Neilsen Foundation   
Validity of the Anorectal Exam in Persons with SCI: an FMRI Study   
  
The goal of this proposal is to use an established functional magnetic resonance imaging (fMRI) and Diffusion Tensor Imaging (DTI) protocol to validate the use of the anorectal examination as a test for SCI severity in children and adolescents with SCI.   
Role: PI   
  
R01 NS079635 Mohamed/Mulcahey (PI) 04/01/2013-03/30/2018   
National Institute of Health (NINDS)   
Neuroimaging Based on DTI as a Biomarker for Spinal Cord Injury in Children   
  
The purpose of this project is to establish neuroimaging criteria based on diffusion tensor imaging (DTI) for evaluating the location and severity of spinal cord injury in children and youths among four ASIA Impairment Scale (AIS) classifications (A, B, C/D and E).   
Role: Co-Investigator   
  
   
385043 Mohamed (PI) 08/31/2016-08/30/2019   
Craig H Neilsen Foundation   
Metal Artifact Characterization in Spinal Cord Injury   
  
These projects is to designed, test and optimize metal suppression magnetic resonance (MR) pulse sequences in spinal implants using in-vitro phantom models and later to evaluate these pulse sequences in spinal cord injury (SCI) patients with metal implants, and establish guidelines for reliably imaging the spinal cord under these conditions.   
Role: Co-Investigator   
  
TJU-2016-2018 Flanders (PI) 12/31/2016-12/30/2018   
Craig H. Neilsen Foundation   
Reliability Assessment of Subjective and Objective Measures of Spinal Cord Injury using the NINDS SCI MRI CDE Instrument   
  
This project will determine the inter and intra-rater reliability of the NINDS MR imaging common data elements when assessed by expert neuroradiologists, and determine the level of agreement of the DTI indices among two different MRI vendors and two field strength using the DTI parameters outlined in the imaging common data elements   
Role: Co-Investigator   
  
Completed Research Support:   
Dean Research Award Krisa (PI) 07/01/2015-06/30/2016   
Thomas Jefferson University School of Health Professionals   
Effects of Autonomic Dysfunction in Spinal Cord Injured Youth and Adolescents   
  
The goal of this proposal is to collect preliminary data to determine if there is an association between daily blood pressure values and cognitive performance in 10 adolescents and young adults with SCI.   
Role: PI

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**Assessment and Treatment of Neuropathic Pain after Spinal Cord Injury from Bench to Bedside**

Wednesday, May 02, 2018 01:45 PM - 03:15 PM

***Eva Widerstrom-Noga, DDS, PhD***  
University of Miami Miller School of Medicine.

**CV:**  
Eva Widerstrom-Noga   
Research Professor of Neurological Surgery and Physical Medicine and Rehabilitation   
  
A. Personal Statement   
I am a Professor of Neurological Surgery, Rehabilitation Medicine, Health Scientist at the Veterans Affairs Medical Center, and the principal investigator of the Clinical Pain Research Laboratory of The Miami Project to Cure Paralysis. My background is in cross-disciplinary pain research (pain physiology and pain psychology) and in the clinical management of chronic pain. I have performed human pain research for more than 24 years and in the field of spinal cord injury (SCI) for over 20 years. I have adapted outcome measures used to classify and assess pain in other chronic pain populations to people with SCI. I have published 60 peer reviewed journal articles and written eight book chapters on pain and pain assessment. My present research involves both qualitative and quantitative pain methodologies including quantitative sensory testing and MR spectroscopic brain imaging. I have been instrumental in developing, presenting, and promoting the International SCI Pain Data Sets and the NINDS CDEs for SCI and Pain. I serve as the Chair or as a member in both National and International efforts to standardize pain outcome measures and pain classification, and clinical guidelines related to pain. I have extensive interdisciplinary clinical pain research experience in persons with neurotrauma, including the use of a wide spectrum of pain outcome measurements and pain phenotyping.   
  
B. Positions and Honors   
Positions and Employment   
1986-1990 Dentist (general dentistry). Kungälv, Sweden   
1987-1993 PhD-training, Department of Physiology, Faculty of Medicine, University of Gothenburg. Gothenburg, Sweden   
1990-1991 Dentist (Orofacial Pain, Department of Stomatognathic Physiology), Faculty of Dentistry, University of Gothenburg. Gothenburg, Sweden   
1993-1995 Chronic Pain Management, Biodex Therapy Center. Winnipeg, Canada   
1996-1999 Senior Research Associate, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
1999-2002 Instructor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
2002-2005 Research Assistant Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
2004- pres. Research Health Scientist, Research Service, Bruce W. Carter VA Medical Center. Miami, FL   
2005-2014 Research Associate Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami Miller School of Medicine. Miami, Florida   
2007-2014 Research Associate Professor in Rehabilitation Medicine, University of Miami Miller School of Medicine. Miami, Florida   
2007- pres. Graduate Faculty, Neuroscience Program, University of Miami Miller School of Medicine. Miami, Florida   
2007- pres. Scientific Awards Committee, University of Miami Miller School of Medicine. Miami, Florida   
10/08-09/09 Vice-Chair: Research & Development Committee, Bruce W. Carter VA Medical Center. Miami, Florida   
10/09-10/10 Chair: Research & Development Committee, Bruce W. Carter VA Medical Center, Miami, Florida   
07/10-06/13 Member: Medical School Faculty Council, University of Miami Miller School of Medicine. Miami, Florida   
10/10-09/12 Member: Research & Development Committee, Bruce W. Carter VA Medical Center. Miami, Florida   
2014- pres. Research Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami Miller School of Medicine. Miami, Florida   
2014- pres. Research Professor in Rehabilitation Medicine, University of Miami Miller School of Medicine. Miami, Florida   
Other Experience and Professional Memberships   
1983-pres. Member International Association for the Study of Pain (IASP)   
1996-pres. Member American Pain Society (APS)   
1997-pres. Member American Paraplegia Society   
2001-pres. Member American Spinal Injury Association (ASIA)   
2003-pres. Member International Spinal Cord Injury Association   
2004-2008 Member American Pain Society Ethics committee   
2004-pres. Member American Spinal Injury Association Research Committee   
2005-pres. Chair International Pain Data Set subcommittee ISCoS/ASIA   
2007-pres. Member of Scientific Awards Committee, University of Miami, Miller School of Medicine   
2009-2012 Member International Taskforce on pain classification after SCI   
2013-pres. ACTTION-APS Pain Taxonomy (AAPT): Member research committee.   
2013-pres. ACTTION-APS Pain Taxonomy (AAPT): Co-chair subcommittee on central neuropathic pain   
2015-pres. NINDS SCI Data Sets Oversight Committee   
  
C. Contributions to Science   
My work primarily concerns the extremely complex problem of persistent neuropathic pain after neurotrauma. My primary interests are influenced by my clinical background and interest in elucidating the underlying mechanisms of human pain and the cognitions and behaviors that determine the impact of pain.   
1. Defining persistent pain after SCI: Much of this work was initiated to determine, in more detail than previous research, the characteristics, psychosocial impact and interference, and chronicity of pain after SCI. This work was the foundation for the development of national and international recommendations for pain evaluations after SCI (see Evaluating pain below)   
a. Widerström-Noga EG, Felipe-Cuervo E, Broton JG, Duncan RC, Yezierski RP. Perceived difficulty in dealing with consequences of spinal cord injury. Arch Phys Med Rehabil 80:580-6. 1999.   
b. Widerström-Noga EG, Felipe-Cuervo E, Yezierski RP. Chronic pain following spinal cord injury: Interference with sleep and activities. Arch Phys Med Rehabil 82:1571-7. 2001.   
c. Widerström-Noga EG, Turk DC. Types and effectiveness of treatments used by people with chronic pain associated with spinal cord injuries: Influence of pain and psychosocial characteristics. Spinal Cord 41 (11):600-609. 2003.   
d. Cruz-Almeida Y, Martinez-Arizala A, Widerström-Noga EG. Chronicity of pain associated with spinal cord injury: A longitudinal analysis. JRRD 42 (5): 585-94. 2005.   
2. Pain evaluation: I am the Chair of the International Spinal Cord Injury Pain Data Set committee, which is an international collaborative effort between the major pain and spinal cord injury (SCI) organizations. The goal of this committee is to facilitate collaborations and multicenter trials by developing standardized SCI pain evaluation algorithms that can be used worldwide. The first instrument “the Basic Pain Data Set” has been endorsed, translated into several languages, and incorporated into the NINDS Common Data Elements. Consistent evaluation of pain after SCI is critical to progress in this field by facilitating collaboration and comparable outcomes in across clinical centers and countries.   
a. Widerström-Noga EG, Cruz-Almeida Y, Martinez-Arizala A, Turk DC. Internal consistency, stability, and validity of the spinal cord injury version of the Multidimensional Pain Inventory. Arch Phys Med Rehabil 87:516-23. 2006.   
b. Widerström-Noga EG, Biering-Sørensen F, Bryce T, Cardenas DD, Finnerup NB, Jensen MP, Richards JS, Siddall P. The International Spinal Cord Injury Pain Basic Data Set. Spinal Cord 46 (12):818-23. 2008.   
c. Widerström-Noga EG, Biering-Sørensen F, Bryce T, Cardenas DD, Finnerup NB, Jensen MP, Richards JS, Siddall PJ. The International Spinal Cord Injury Pain Basic Data Set (version 2.0). Spinal Cord 52 (4):282-6. 2014.   
d. Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord 53 (4):265-77. 2015.   
3. Pain Classification: I have been an integral part of the development of a valid and reliable spinal cord injury pain classification system. I am also a member of a major new initiative, initiated by Drs. Robert Dworkin, Dennis Turk, and Roger Fillingim, and co-sponsored by Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks, and the American Pain Society. The intent is to develop a comprehensive taxonomy encompassing all acute and chronic pain conditions. At present, there is no consensus on pain classification, a major limitation that has impeded the development of improved pain treatments.   
a. Bryce TN, Biering-Sørensen F, Finnerup NB, Cardenas DD, Defrin R, Lundeberg T, Norrbrink C, Richards JS, Siddall P, Stripling T, Treede RD, Waxman SG, Widerström-Noga E, Yezierski RP, Dijkers M. International Spinal Cord Injury Pain Classification: part I. Background and description. Spinal Cord 50 (6):413-7. 2012.   
b. Bryce TN, Biering-Sørensen F, Finnerup NB, Cardenas DD, Defrin R, Ivan E, Lundeberg T, Norrbrink C, Richards JS, Siddall P, Stripling T, Treede RD, Waxman SG, Widerström-Noga E, Yezierski RP, Dijkers M. International Spinal Cord Injury Pain (ISCIP) Classification: Part 2. Initial validation using vignettes. Spinal Cord 50 (6):404-12. 2012   
c. Bruehl S, Ohrbach R, Sharma S, Widerstrom-Noga E, Dworkin RH, Fillingim RB, Turk DC. The ACTTION-American Pain Society Pain Taxonomy (AAPT): Approaches to Demonstrating the Reliability and Validity of Core Diagnostic Criteria. J of Pain 2016 Sep;17(9 Suppl):T118-31).   
d. Fillingim RB, Brueh Sl, Dworkin RH, Dworkin SF, Loeser JD, Turk DC, Widerström-Noga E, et al. The ACTTION-American Pain Society Pain Taxonomy (AAPT): An Evidence-Based and Multi-Dimensional Approach to Classifying Chronic Pain Conditions. J Pain 15 (3):241-9. 2014   
4. Sensory pain phenotypes: Quantitative Sensory Testing (QST) is a very important method used to investigate underlying mechanisms of pain in neuropathic pain research. My colleagues and I have demonstrated that QST is both valid and reliable after spinal cord injury (SCI). Furthermore, we have shown that injury to both the spinothalamic tract and the dorsal column is predictive of the development of neuropathic pain after SCI. We have just completed another study, the largest of its kind, testing the utility of QST to define clinical neuropathic pain phenotypes or subgroups after SCI. The results suggest at least two clinical pain phenotypes with varying degrees of gain and loss of sensory function. Since such clinical pain phenotypes may reflect underlying mechanisms of pain, identification of specific phenotypes based on QST can serve to differentiate subgroups in responder analyses in clinical trials.   
a. Felix ER, Widerström-Noga EG. Reliability and validity of quantitative sensory testing in persons with spinal cord injury and chronic neuropathic pain. JRRD 46 (1):69-84. 2009.   
b. Cruz-Almeida Y, Felix ER, Martinez-Arizala A, Widerström-Noga EG. Decreased spinothalamic and dorsal column medial lemniscus-mediated function is associated with neuropathic pain after spinal cord injury. J Neurotrauma 29 (17):2706-15. 2012   
c. Widerström-Noga EG, Felix ER, Adcock JP, Escalona M, Tibbett J. Multidimensional neuropathic pain phenotypes after spinal cord injury. J of Neurotrauma. 2016;33(5):482-92.   
5. Brain biomarkers of Pain: My colleagues and I have recently published research involving magnetic resonance spectroscopy of the brain in persons with central neuropathic pain and SCI or traumatic brain injuries. Our data suggest that biomarkers related to glutamatergic metabolism and glial activation are associated with severe neuropathic pain as well as a specific sensory phenotype with residual spinothalamic function. These findings are consistent with our previous data from the thalamus showing that pain and severity of pain after SCI are associated both with glial activation and neuronal dysfunction.   
a. Widerström-Noga EG, Pattany P, Cruz-Almeida Y, Felix ER, Perez S, Cardenas DD, Martinez-Arizala A. Association between metabolite concentrations in the anterior cingulate cortex and high neuropathic pain impact after spinal cord injury. Pain 54 (2):204-212. 2013.   
b. Widerström-Noga EG, Cruz-Almeida Y, Felix ER, Pattany PM. Somatosensory phenotype is associated with thalamic metabolites and pain intensity after spinal cord injury. Pain 156:166-174. 2015.   
c. Widerström-Noga E, Govind V, Adcock J, Levine B, Maudsley AA. Subacute pain after TBI is associated with lower insular N-acetylaspartate concentrations. J of Neurotrauma 2016:15;33(14):1380-9.   
d. Pattany PM, Yezierski RP, Widerström-Noga EG, Bowen BC, Martinez-Arizala A, Garcia BR, Quencer RM. Proton magnetic resonance spectroscopy of the thalamus in patients with chronic neuropathic pain after spinal cord injury. Am J Neuroradiol 23;901-5. 2002.   
List of Published Work (peer reviewed articles 53 out of 60)   
https://www.ncbi.nlm.nih.gov/pubmed/?term=widerstrom-noga   
Research Support (past 3 years)   
Ongoing Research Support   
MR141214 (DoD) Widerström-Noga (PI) 4/15/2016—3/31/2019   
Utility of MRS Brain Biomarkers of Pain Phenotypes after TBI   
The aims of this project will determine the ability of whole brain Magnetic Resonance Spectroscopy (MRS) and Diffusion Kurtosis Imaging (DKI) measures in brain areas involved in the processing and modulation of pain (thalamus, insula, cingulate, prefrontal cortex, and hippocampus) to predict: (1) Chronic pain after TBI; and (2) Pain symptom, somatosensory and psychological pain phenotypes. The specific measures include: 1) For MRS: N-acetylaspartate (NAA; an indicator of neuronal dysfunction or loss), myo-inositol (Ins; an indicator of glial activation or proliferation), and a composite of glutamate and glutamine (Glx; an indicator of glutamatergic function; and 2) For DKI: mean diffusivity (MD), fractional anisotropy (FA), mean kurtosis (MK), radial kurtosis (RK), and axial kurtosis (AK).   
Role: PI   
90DP0074 (NIDILRR) Nash (PI) 09/30/2015—08/31/2019   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment.   
This project will study lifestyle interventions (LI) in persons with spinal cord injuries and diseases. Project goals include: (1) testing the impact of a model LI program on attributes of health and function that are recognized to compromise healthy aging in persons with SCI living in caregiver/care-receiver relationships, (2) examining the impact of the LI on the relationship of the caregiver/care-receiver dyad, and (3) determining whether co-intervention with the caregiver improves health/function for their partner.   
Role: Co-Investigator   
90IF0099 (NIDILRR) Taylor (PI) 09/30/2015—09/29/2018   
The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury   
This project identifies and evaluates relations among pain, depression, and resilience and the extent to which they predict life satisfaction in men and women with chronic pain secondary to spinal cord Injury (SCI).   
Role: Co-Investigator   
  
  
  
SC140052 (DoD) Widerström-Noga (PI) 09/15/2015—09/14/2018   
Perspectives on Management of Severe Neuropathic Pain after Spinal Cord Injury   
The long-term goal of this study is to overcome barriers to the management of severe SCI-related chronic pain. The primary purpose being to identify barriers to optimal pain management based on the perspectives and beliefs of individuals with SCI, their significant others, and healthcare providers, and to identify the primary ways to overcome these barriers and develop an educational tool to disseminate this information to the SCI community.   
Role: PI   
R01 HD079009-01 (NICHD) Field-Fote (PI) 08/01/2014—07/31/2019   
Dose-Response Effects of Whole Body Vibration on Spasticity and Walking in SCI   
The goal of this project is to assess the effects various doses of whole body vibration on spasticity, walking function, pain, and strength in persons with SCI.   
Role: Co-Investigator   
NIDILRR South Florida SCI Model System Felix (PI) 09/01/2016-08/31/21   
Randomized, double-blinded, controlled trial of early-intervention TENS for the reduction of the prevalence and severity of chronic neuropathic pain during the first year after spinal cord injury.   
Role: Co-Investigator   
  
Completed Research Support   
SC110131 (DoD) Jagid (PI) 09/15/2012—09/14/2016   
Treatment of Pain and Autonomic Dysreflexia in Spinal Cord Injury with Deep Brain Stimulation   
This is a Phase I study of the safety and efficacy of deep brain stimulation applied bilaterally in the midbrain periaqueductal-periventricular gray region (PAG/PVG) for alleviation of chronic neuropathic pain in patients with spinal cord injury.   
Role: Co-I   
SC110195 (DoD) Widerström-Noga (PI) 09/01/2012—08/31/2015   
Experiences of Living with Pain after a Spinal Cord Injury   
The goal of this qualitative study was to identify barriers and facilitators to coping and management of SCI-related persistent pain, its impact on a person’s activities and participation, and how this impact may change with time since injury.   
Role: PI   
Robert J., Jr. & Helen C. Kleberg Foundation Anderson (PI) 01/01/2013—06/30/2014   
Exercise and Locomotor Training Required for Clinical Trials Targeting Chronic Spinal Cord Injury   
The purpose of this project is to determine, in persons with chronic SCI, the minimum amount of exercise conditioning and locomotor training required to ameliorate the confounding effects of a deconditioned body state and provide baseline control for training-induced neuroplasticity prior to administration of a biologic or pharmacologic therapy. The trial outcome will enable us to design an appropriate exercise and locomotor training protocol to combine with biologic or pharmacologic therapies and to establish a core set of outcome measures that are sensitive yet feasible to administer in a clinical trial targeting individuals living with chronic, motor-complete thoracic SCI   
Role: Co-Investigator

***Eldon Loh, MD***  
University of Western Ontario

**CV:**  
Dr. Eldon Loh, MD, FRCPC   
  
  
QUALIFICATIONS   
July 2011 CSCN Diplomate (EMG)   
July 2010 Fellow, Royal College of Physicians of Canada (FRCPC)   
Specialist: Physical Medicine and Rehabilitation   
June 2006 Licentiate, Medical Council of Canada   
May 2005 Doctor of Medicine, University of Western Ontario   
  
CURRENT ACADEMIC POSITIONS   
July 2011 – pres. Assistant Professor, Physical Medicine and Rehabilitation,   
University of Western Ontario, London, Ontario   
July 2012 - pres. Core Masters’ Supervisory Status, Faculty of Health and Rehabilitation Sciences   
University of Western Ontario, London, Ontario   
Oct. 2016- pres. Associate Scientist, Lawson Health Research Institute, London, Ontario.   
  
COMMITTEES   
• Vice Chair, Canadian Association of Physical Medicine and Rehabilitation, Research Committee (May 2016 – present)   
• Chair, Interventional SIG, CAPMR – initial meeting May 2016   
• Committee Member, Rick Hansen Institute Care Committee (May 2016)   
• Committee Member, SCI Care Committee, ONF/RHI (2015-present)   
• Chair, Neuropathic Pain Summit, ONF/RHI (July 2016-present)   
  
  
HONOURS   
  
• CAPMR Best Platform Presentation (2009 – first author)   
• American Society of Regional Anesthesia Best of Meeting Abstract (2014 – first author)   
• International Spine Intervention Society Best Fellow Abstract (2015 – co-author)   
• CAPMR Paper of the Year (2015 – senior author)   
• CAPMR First Place, Original Research Abstract (2016 – co-author)   
• CAPMR Third Place, Original Research Abstract (2016 – first author)   
• International Society of Ultrasound and Regional Anesthesia, Top 4 Best Abstracts (2016 – senior author).   
• Spine Intervention Society Annual Meeting, Best Clinical Abstract (2016 – co-author)   
  
SELECTED PUBLICATIONS   
  
Burnham R, Playfair L, Loh E, Roberts S, Agur A. Evaluation of the Effectiveness and Safety of Ultrasound-Guided Percutaneous Carpal Tunnel Release. Am J Phys Med Rehabil [Internet]. 2016 Dec [cited 2017 Jan 31];1. Available from: http://content.wkhealth.com/linkback/openurl?sid=WKPTLP:landingpage&an=00002060-900000000-98771   
  
Roberts SL, Burnham RS, Agur AM, Loh EY. A Cadaveric Study Evaluating the Feasibility of an Ultrasound-Guided Diagnostic Block and Radiofrequency Ablation Technique for Sacroiliac Joint Pain. Reg Anesth Pain Med [Internet]. 2017 [cited 2017 Jan 31];42(1):69–74. Available from: http://www.ncbi.nlm.nih.gov/pubmed/27811527   
  
Loh E, Guy SD, Mehta S, Bradbury C, Bryce T, Casalino A, Côté I, Craven C, Finnerup N, Harvey D, Hitzig SL, Kras-Dupuis A, Lau B, Middleton J, Moulin D, O’Connell C, Orenczuk S, Parrent A, Potter P, Siddall P, Short C, Teasell R, Townson A, Truchon C, Widerström-Noga E, Wolfe D. CanPainSCI Rehabilitation Clinical Practice Guideline for Management of Neuropathic Pain after Spinal Cord Injury: Introduction, Methodology, and Recommendation Overview. Spinal Cord 2016; 54:S4-S6; doi:10.1028/sc.2016.88.   
  
Guy SD, Mehta S, Casalino A, Côté I, Kras-Dupuis A, Moulin DE, Parrent AG, Potter P, Short C, Teasell R, Bryce TN, Craven BC, Finnerup NB, Harvey D, Hitzig SL, Lau B, Middleton JW, O’Connell C, Orenczuk S, Siddall PJ, Townson A, Truchon C, Widerström-Noga E, Wolfe D, Bradbury CC, Loh E. CanPainSCI Rehabilitation Clinical Practice Guideline for Management of Neuropathic Pain after Spinal Cord Injury: Recommendations for Treatment. Spinal Cord 2016; 54:S14-S23; doi:10.1038/sc/2016.90.   
  
Guy SD, Mehta S, Harvey D, Lau B, Middleton JW, O'Connell C, Townson A, Truchon C, Wolfe D, Bradbury CL, Bryce TN, Casalino A, Côté I, Craven BC, Finnerup NB, Hitzig SL, Kras-Dupuis A, Moulin DE, Orenczuk S, Parrent AG, Potter P, Siddall PJ, Short C, Teasell R, Widerström-Noga E, Loh E. The CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: recommendations for model systems of care. Spinal Cord. 2016;54 Suppl 1:S24-7. doi:10.1038/sc.2016.91.   
  
Mehta S, Guy SD, Bryce TN, Craven BC, Finnerup NB, Hitzig SL, Orenczuk S, Siddall PJ, Widerström-Noga E, Casalino A, Côté I, Harvey D, Kras-Dupuis A, Lau B, Middleton JW, Moulin DE, O'Connell C, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Wolfe D, Bradbury CL, Loh E. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: screening and diagnosis recommendations. Spinal Cord. 2016;54 Suppl 1:S7-S13. doi:10.1038/sc.2016.89.   
  
Walton DM, Elliott J, Lee J, Loh E, MacDermid J, Schabrun S, Siqueira WL, Corneil BD, Aal B, Birmingham T, Brown A, Cooper L, Dickey JP, Dixon SJ, Fraser D, Gati J, Gloor G, Good G, Holdsworth D, McLean SA, Millard W, Miller J, Sadi J, Seminowicz DA, Shoemaker JK, Siegmund G, Versteegh T, Wideman TH Research Priorities in the Field of Posttraumatic Pain and Disability: Results of a Transdisciplinary Consensus-Generating Workshop. Pain Res Manag. 2016; 2016:1859434. doi:10.1155/2016/1859434. Epub 2016 Jun 14.   
  
Walton DM, Kwok TSH, Mehta S, Loh E, Smith A, Elliott J, Kamper SJ, Kasch H, Sterling M. Cluster Analysis of an International Pressure Pain Threshold Database Identifies 4 Meaningful Subgroups of Adults with Mechanical Neck Pain. Clin J Pain. August 2016. doi:10.1097/AJP.0000000000000421.   
  
Robinson TJG, Roberts SL, Burnham RS, Loh E, and Agur AM, Sacro-Iliac Joint Sensory Block and Radiofrequency Ablation: Assessment of Bony Landmarks Relevant for Image-Guided Procedures. BioMed Research International, vol. 2016, Article ID 1432074, 7 pages, 2016. doi:10.1155/2016/1432074   
  
Robinson TJG, Ravichandiran K, Satkunam LE, McKee NH, Agur AM, Loh E. Neuromuscular partitioning of gastrocnemius based on intramuscular nerve distribution patterns: implications for botulinum toxin injections. European Journal of Anatomy; 20(1): 65-73 (2016).   
  
Mehta S, McIntyre A, Guy S, Teasell RW, Loh E. Effectiveness of transcranial direct current stimulation for the management of neuropathic pain after spinal cord injury: a meta-analysis. Spinal Cord (2015) 53(11): 780–785.   
  
Mehta S, Guy S, Lam T, Teasell R, Loh E. Antidepressants Are Effective in Decreasing Neuropathic Pain After SCI: A Meta-Analysis. Top Spinal Cord Inj Rehabil. 2015 Spring; 21(2):166-73.   
  
Roberts S, Burnham R, Manchandiran K, Agur AMR, Loh E. Cadaveric study of sacroiliac joint intervention: implications for diagnostic blocks and radiofrequency ablation. Regional Anesthesia and Pain Medicine 2014; 39(6):456-464.   
  
Lisk K, Flannery JF, Loh EY, Richardson D, Agur AM, Woods NN. Determination of clinically relevant content for a musculoskeletal anatomy curriculum for physical medicine and rehabilitation residents. Anat Sci Educ. 2014 Mar;7(2):135-43.   
  
SELECTED GRANTS   
  
Alibrahim F, Loh E. A Retrospective Study on the Clinical Effectiveness of Radiofrequency Ablation for Chronic Axial Spine Pain in Ontario. Earl Russell Trainee Grant. Feb. 6, 2017. Amount: $10000.   
Loh E. Neuropathic Pain Summit. Ontario Neurotrauma Foundaion. Amount: $20 000. (2016)   
Teasell R, Sequeira K, Loh E. AFP Innovation Proposal: Rehabilitation Knowledge to Action Project (REKAP) 2 in Neurorehabilitation. AFP Southwestern Ontario. $190 000 (July 2013-July 2015).   
  
Loh E, Guy S, Mehta S. Development of clinical practice guidelines for pain management in SCI (Phase 2). Ontario Neurotrauma Foundation. $120 000 (2013-2015 – no cost extension to June 2016)   
  
Houghton P, Wolfe D, Lala D, Holyoke P, Mittmann N, Fraser C, Campbell K, Kras-Dupuis A, Gagliardi J, Potter P, Loh E. Best practice implementation of electrical stimulation for healing pressure ulcers in community dwelling persons with spinal cord injury. Rick Hansen Institute Amount: $300000 (Mar. 2015-Mar. 2017).   
  
Loh E, Walton DM, Trejos A, Dickey J, Katchabaw M. Establishing the Western Collaboration for Integration of Consumer Technology and Healthcare (CICTH) research group. Schulich School of Medicine and Dentistry: Collaborative Research Seed Grant. Schulich School of Medicine and Dentistry. $20800. (Oct. 2013 – Apr. 2017).   
  
Walton DM, Mehta S, Loh E. Facet versus trigger point injection for management of chronic muscular neck pain: A randomized clinical trial and creation of a clinical prediction algorithm. Western Internal Research Fund. $14915. (2013-Dec.2016).   
  
Eng JJ, Teasell R, Miller WC, Wolfe D, Kwon B, Hsieh J, Townson A, Connolly S, Noonan V, Loh E. Spinal Cord Injury Review Evidence. Rick Hansen Institute. $324 000 (July 2015- June 2017).   
  
SELECT PUBLISHED ABSTRACTS   
  
Mehta S, Loh E, Nielsen W, Walton D. Does current stage of pain effect mood and coping among individuals with chronic neck pain? Pain Research and Management – CPS Meeting May 24-27, 2016, Vancouver BC – Poster presentation.   
  
Loh E, Roberts S, Burnham R, Agur A. Ultrasound-guided diagnostic block and radiofrequency ablation technique for sacro-iliac joint complex pain: A cadaveric and subsequent prospective cohort study of effectiveness. CAPMR – May 28, 2016 – Poster and platform presentation, London ON – Journal of Rehab Med.   
  
Playfair L, Roberts S, Loh E, Agur A, Burnham R. A cadaveric study of the effectiveness and safety of ultrasound-guided percutaneous carpal tunnel release. CAPMR – May 28, 2016 – Poster and platform presentation, London ON - Journal of Rehab Med.   
  
Roberts SL, Burnham RS, Agur AM, Loh EY. Cadaveric study of ultrasound-guided SI joint RF ablation. International Society of Ultrasound and Regional Anesthesia. Toronto ON – June 11, 2016.   
  
Stout A, Dreyfuss P, Swain N, Roberts S, Loh E, Agur A. Optimal fluoroscopic imaging and needle placement for cooled RF neurotomy of sacral lateral branch nerves: an anatomical study. Spine Intervention Society. New Orleans, Aug. 2016. Pain Medicine 2016 vol: 17 (8) pp: 1594-1595   
  
Swain N, Stout A, Dreyfuss P, Roberts S, Loh E, Agur A. Determining Optimal Fluoroscopic Imaging and Needle Placement for Cooled RF Neurotomy of Sacral Lateral Branch Nerves: An Anatomical Study. Pain Medicine 2015: 16(8);1659-1660. Platform presentation July 23, 2015, Las Vegas NV.   
Mehta S, Loh E, Walton D. Identification and Characterization of Unique Subgroups of Chronic Cervical Pain Individuals Based on Their Coping Style. Archives of Physical Medicine and Rehabilitation Oct. 2015, Vol. 96, Issue 10, e66  Poster presentation Oct. 28, 2015, Dallas TX.   
  
Mehta S, McIntyre A, Guy S, Teasell RW, Loh E. Effectiveness of Transcranial Direct Current Stimulation for the Management of Neuropathic Pain After Spinal Cord Injury: A Meta-Analysis Archives of Physical Medicine and Rehabilitation Oct. 2015, Vol. 96, Issue 10, e117. Poster presentation Oct. 28, 2015, Dallas TX.   
  
Loh E, Roberts S, Ravichandiran K, Burnham RS, Agur A. Innervation of the Sacro-iliac Joint: Clinical Implications for Interventional Pain Management. Archives of physical medicine and rehabilitation 2014 Oct; 95(10): e39. Poster, ACRM 2014 Annual Conference. Toronto, Ontario, Canada. 2014 Oct.   
  
Roberts SL, Loh EY, Burnham RS, Agur AM. Cannular placement for radiofrequency ablation: Is ultrasound feasible? Clinical Anatomy 2014: 27: 1321. Poster, American Association of Clinical Anatomists 2014 Annual Meeting. Orlando, Florida, United States. 2014 Jul.   
  
Guy S, Mehta S, Loh E. The Development of a Clinical Practice Guideline for the Management of Neuropathic Pain following Spinal Cord Injury. Jounal of Spinal Cord Medicine 2014; 37(5): 615. Workshop, 6th National Spinal Cord Injury Conference, Toronto, Canada.   
  
Guy S, Mehta S, Loh E. Anticonvulsant medication use for the management of pain following spinal cord injury: Systematic review and effectiveness analysis. Topics in Spinal Cord Injury Rehabilitation 2014;20(S1). Platform presentation, American Spinal Injury Association Annual Meeting 2014, San Antonio, United States   
  
Mehta S, Guy S, Teasell R, Loh E. Antidepressants are effective in decreasing neuropathic pain after SCI: a meta-analysis. Topics in Spinal Cord Injury Rehabilitation 2014:20(S1):4. Platform presentation, American Spinal Injury Association Annual Meeting 2014, San Antonio, United States   
  
SELECT INVITED TALKS   
  
Loh E. Pain after SCI. Pain Practice Staff Education. Mar. 11, 2016. Parkwood Staff In-service.   
  
Loh E. Pain after SCI. Pain Practice Staff Education. Mar. 21, 2016. Parkwood Staff In-service.   
  
Loh E, Roberts S, Burnham R, Agur A. Ultrasound-guided SI joint radiofrequency ablation: Moving Towards Clinical Practice. Canadian Interventional Pain Conference, Vancouver BC. April 1, 2016.   
  
Loh E, Roberts S, Burnham R, Agur A. A technique for ultrasound-guided SI joint radiofrequency ablation. International Society for Ultrasound and Regional Anesthesia Annual Conference. Toronto ON. Jun 11, 2016.   
  
Loh E, Roberts S, Agur A, Burnham R. Advancing Interventional Pain Management. Parkwood Institute Research: An Overview of Current and Future Research. London ON. Apr. 22, 2016.   
  
Loh E, Guy S, Mehta S. Management of Neuropathic Pain After SCI: Clinical Practice Guidelines. Mary Free Bed Rehabilitation Hospital Spinal Cord Injury Symposium. Grand Rapids MI. Oct. 12, 2016.   
  
Loh E, Roberts S, Agur A, Burnham R. Preliminary Clinical Data for Ultrasound-Guided SI joint radiofrequency ablation. 2nd International Conference on Sacroiliac Joint Surgery (ICSJS) - Sacroiliac Joint Medical Expert Group. Hamburg, Germany. Sept. 17, 2016.   
  
SELECTED WORKSHOPS   
  
Canadian Interventional Pain Conference. Instructor. April 2, 2016. Vancouver BC   
  
SELECTED PRESENTATIONS   
Guy S, Mehta S, Loh E. Pain after SCI. Glenrose Rehabilitation Hospital, SCI Retreat Day. Nov. 17, 2015. Edmonton AB.   
Mehta S, Loh E, Nielsen W, Walton D. Does current stage of pain effect mood and coping among individuals with chronic neck pain? Pain Research and Management – CPS Meeting May 24-27, 2016, Vancouver BC – Poster presentation.   
Loh E, Roberts S, Burnham R, Agur A. Ultrasound-guided diagnostic block and radiofrequency ablation technique for sacro-iliac joint complex pain: A cadaveric and subsequent prospective cohort study of effectiveness. CAPMR – May 2016 – Poster and awards presentation (platform), London ON – Journal of Rehab Med   
Playfair L, Roberts S, Loh E, Agur A, Burnham R. A cadaveric study of the effectiveness and safety of ultrasound-guided percutaneous carpal tunnel release. CAPMR – May 2016 – Poster and awards presentation (platform), London ON.   
  
Roberts SL, Burnham RS, Agur AM, Loh EY. Cadaveric study of ultrasound-guided SI joint RF ablation. International Society of Ultrasound and Regional Anesthesia. Toronto ON – June 11, 2016.   
  
Robinson T, Roberts S, Burnham R, Agur A, Loh E. How accurate is ultrasound-guided sacroiliac joint radiofrequency ablation needle placement? Gallie Day, University of Toronto. May 13, 2016.   
  
Roberts S, Agur A, Robinson T, Burnham R, Loh E Ultrasound-guided radiofrequency ablation of the innervation of the sacroiliac joint: a cadaveric study. Gallie Day, University of Toronto. May 13, 2016.   
  
Stout A, Dreyfuss P, Swain N, Roberts S, Loh E, Agur A. Optimal fluoroscopic imaging and needle placement for cooled RF neurotomy of sacral lateral branch nerves: an anatomical study. Spine Intervention Society. New Orleans, Aug. 2016.   
  
SUPERVISORY EXPERIENCE   
  
Swati Mehta, PhD Co-Supervisor (completed, Sept. 2012- Jan. 2017)   
Stacey Guy, PhD Co-Supervisor (in progress, Sept. 2014-present)   
  
MENTORSHIP   
  
Kristina Lisk, External PhD Advisroy Committee Member (PhD completed, University of Toronto, 2011-2016)   
Lyndsey Orr, PhD Advisory Committee Member (In Progress, University of Western Ontario, 2015-present)

***Norbert Weidner, MD***  
Heidelberg University Hospital

**CV:**  
Name   
Norbert Weidner, M.D.   
  
Position title   
Clinical Director & Chair, Spinal Cord Injury Center, Heidelberg University Hospital   
  
University education   
1986 – 1993 Medical School, University of Würzburg, Germany   
2004 Board Certification, Neurology, Bayer. Ärztekammer   
  
Scientific degrees   
1995 Medical Doctor, Julius-Maximilian University of Würzburg,   
Germany   
2005 Habilitation, Prof. Bogdahn, Regensburg University Hospital,   
Germany   
Professional experience   
  
Since 12/2009 Chair, Spinal Cord Injury Center, Heidelberg University Hospital   
2007 - 2009 Head, out-patient clinic for movement disorders and motoneuron diseases, Department of Neurology, University of Regensburg, Germany   
2007 - 2009 Head, teaching curriculum clinical neurosciences, International Elite Master’s Programme in Experimental/Clinical Neurosciences, University of Regensburg   
2005 - 2006 Head, telemedicine project TEMPIS, Department of Neurology, University of Regensburg   
2004 until 2009 Attending physician, Department of Neurology, University of Regensburg, Germany, Prof. U. Bogdahn   
1/2001 – 2/2002 Scientific Exchange Program, University of California, San Diego,USA, Prof. M.H. Tuszynski   
1999 until 2004 Staff scientist/resident, Department of Neurology, University of Regensburg, Germany, Prof. U. Bogdahn   
1996 until 1999 Postdoctoral fellow, Department of Neurosciences, University of California, San Diego, USA, Prof. M.H. Tuszynski   
1995 until 1996 Clinical resident, Department of Neuropathology, University of Heidelberg, Germany, Prof. M. Kiessling   
1993 until 1995 Resident First Year, Department of Neurology University of Würzburg, Germany, Prof. K.V. Toyka   
Awards   
Stipend Canadian Spinal Research Organisation, Stipend ReForM-Program University of Regensburg, Award Bavaria California Technology Center, Stipend International Institute for Research in Paraplegia, Research Award German Paraplegia Foundation DSQ   
  
Editorial boards:   
2012 Editorial Board, Plos One   
  
Memberships, panels and coordinating functions:   
German Society for Neurology   
German Society for Neuroscience   
Society for Neuroscience   
Deutsche Vereinigung für Rehabilitation   
International Spinal Cord Society   
Deutschsprachige Medizinische Gesellschaft für Paraplegiologie (DMGP)   
Coordinator Task Force Guidelines in Spinal Cord Medicine (German, Austria and Switzerland)   
  
  
  
Publications   
Original Papers   
1. Liu, S., B. Sandner, T. Schackel, L. Nicholson, A. Chtarto, L. Tenenbaum, R. Puttagunta, R. Müller, N. Weidner, and A. Blesch, Regulated viral BDNF delivery in combination with Schwann cells promotes axonal regeneration through capillary alginate hydrogels after spinal cord injury. Acta Biomater, 2017. 60: p. 167-180.   
2. Franz, S., C. Schuld, E.P. Wilder-Smith, L. Heutehaus, S. Lang, S. Gantz, S. Schuh-Hofer, R.D. Treede, T.N. Bryce, H. Wang, and N. Weidner, Spinal Cord Injury Pain Instrument and painDETECT questionnaire: Convergent construct validity in individuals with Spinal Cord Injury. Eur J Pain, 2017.   
3. Putz, C., C.D. Alt, C. Hensel, B. Wagner, S. Gantz, H.J. Gerner, N. Weidner, and L. Grenacher, 3T MR-defecography-A feasibility study in sensorimotor complete spinal cord injured patients with neurogenic bowel dysfunction. Eur J Radiol, 2017. 91: p. 15-21.   
4. Reed, R., M. Mehra, S. Kirshblum, D. Maier, D. Lammertse, A. Blight, R. Rupp, L. Jones, R. Abel, N. Weidner, E.S. Group, Scope, A. Curt, and J. Steeves, Spinal cord ability ruler: an interval scale to measure volitional performance after spinal cord injury. Spinal Cord, 2017. 55(8): p. 730-738.   
5. Warner, F.M., J.J. Cragg, C.R. Jutzeler, F. Röhrich, N. Weidner, M. Saur, D.D. Maier, C. Schuld, E. Sites, A. Curt, and J.K. Kramer, Early Administration of Gabapentinoids Improves Motor Recovery after Human Spinal Cord Injury. Cell Rep, 2017. 18(7): p. 1614-1618.   
6. Petersen, J.A., M. Spiess, A. Curt, N. Weidner, R. Rupp, R. Abel, E.-S.S. Group, and M. Schubert, Upper Limb Recovery in Spinal Cord Injury: Involvement of Central and Peripheral Motor Pathways. Neurorehabil Neural Repair, 2017. 31(5): p. 432-441.   
7. Kamradt, T., S. Klein, S. Zimmermann, J. Schroder-Braunstein, C.H. Fürstenberg, C. Hensel, N. Weidner, and A. Hug, Bacterial load of conditioned pressure ulcers is not a predictor for early flap failure in spinal cord injury. Spinal Cord, 2017. 55(6): p. 535-539.   
8. May, F., A. Buchner, K. Matiasek, B. Schlenker, C. Stief, and N. Weidner, Recovery of erectile function comparing autologous nerve grafts, unseeded conduits, Schwann-cell-seeded guidance tubes and GDNF-overexpressing Schwann cell grafts. Dis Model Mech, 2016. 9(12): p. 1507-1511.   
9. Pavese C, Schneider MP, Schubert M, Curt A, Scivoletto G, Finazzi-Agro E, Mehnert U, Maier D, Abel R, Rohrich F, Weidner N, Rupp R, Kessels AG, Bachmann LM, Kessler TM (2016) Prediction of Bladder Outcomes after Traumatic Spinal Cord Injury: A Longitudinal Cohort Study. PLoS Med 13 (6):e1002041.   
10. Schuld C, Franz S, Bruggemann K, Heutehaus L, Weidner N, Kirshblum SC, Rupp R, group Es (2016) International standards for neurological classification of spinal cord injury: impact of the revised worksheet (revision 02/13) on classification performance. J Spinal Cord Med:1-9.   
11. Franz S, Kirshblum SC, Weidner N, Rupp R, Schuld C, group Es (2016) Motor levels in high cervical spinal cord injuries: Implications for the International Standards for Neurological Classification of Spinal Cord Injury. J Spinal Cord Med:1-5.   
12. Cragg JJ, Haefeli J, Jutzeler CR, Rohrich F, Weidner N, Saur M, Maier DD, Kalke YB, Schuld C, Curt A, Kramer JK (2016) Effects of Pain and Pain Management on Motor Recovery of Spinal Cord-Injured Patients: A Longitudinal Study. Neurorehabil Neural Repair.   
13. Nees TA, Tappe-Theodor A, Sliwinski C, Motsch M, Rupp R, Kuner R, Weidner N, Blesch A (2016) Early-onset treadmill training reduces mechanical allodynia and modulates calcitonin gene-related peptide fiber density in lamina III/IV in a mouse model of spinal cord contusion injury. Pain 157 (3):687-697.   
14. Sandner, B., M. Ciatipis, M. Motsch, I. Soljanik, N. Weidner, and A. Blesch, (2016) Limited functional effects of subacute syngeneic bone marrow stromal cell transplantation after rat spinal cord contusion injury. Cell Transplant, in press.   
15. Fehre, K.S., M.A. Weber, C. Hensel, and N. Weidner, (2016) Tetraparesis as clinical correlate of subacute cervical flexion myelopathy. J Spinal Cord Med, 39: 359-62.   
16. Günther, M.I., N. Weidner, R. Müller, and A. Blesch, (2015) Cell-seeded alginate hydrogel scaffolds promote directed linear axonal regeneration in the injured rat spinal cord. Acta Biomater, 27: p. 140-50.   
17. Pawar, K., P. Prang, R. Müller, M. Caioni, U. Bogdahn, W. Kunz, and N. Weidner, (2015) Intrinsic and extrinsic determinants of central nervous system axon outgrowth into alginate-based anisotropic hydrogels. Acta Biomater, 27: p. 131-9.   
18. Hänselmann, S., M. Schneiders, N. Weidner, and R. Rupp, (2015) Transcranial magnetic stimulation for individual identification of the best electrode position for a motor imagery-based brain-computer interface. J Neuroeng Rehabil, 12: p. 71   
19. Sandner, B., M. Ciatipis, M. Motsch, I. Soljanik, N. Weidner, and A. Blesch, (2015) Limited functional effects of subacute syngeneic bone marrow stromal cell transplantation after rat spinal cord contusion injury. Cell Transplant, epub ahead of print   
20. Wu, X., J. Liu, L.G. Tanadini, D.P. Lammertse, A.R. Blight, J.L. Kramer, G. Scivoletto, L. Jones, S. Kirshblum, R. Abel, J. Fawcett, E. Field-Fote, J. Guest, B. Levinson, D. Maier, K. Tansey, N. Weidner, W.G. Tetzlaff, T. Hothorn, A. Curt, and J.D. Steeves, (2015) Challenges for defining minimal clinically important difference (MCID) after spinal cord injury. Spinal Cord. 53(2): 84-91.   
21. Ruschel, J., F. Hellal, K.C. Flynn, S. Dupraz, D.A. Elliott, A. Tedeschi, M. Bates, C. Sliwinski, G. Brook, K. Dobrindt, M. Peitz, O. Brustle, M.D. Norenberg, A. Blesch, N. Weidner, M.B. Bunge, J.L. Bixby, and F. Bradke, (2015) Systemic administration of epothilone B promotes axon regeneration after spinal cord injury. Science. 348: 347-52.   
22. Rupp, R., D. Schliessmann, H. Plewa, C. Schuld, H.J. Gerner, N. Weidner, E.P. Hofer, and M. Knestel, (2015) Safety and Efficacy of At-Home Robotic Locomotion Therapy in Individuals with Chronic Incomplete Spinal Cord Injury: A Prospective, Pre-Post Intervention, Proof-of-Concept Study. PLoS One. 10(3): e0119167.   
23. Tanadini, L.G., T. Hothorn, L.A. Jones, D.P. Lammertse, R. Abel, D. Maier, R. Rupp, N. Weidner, A. Curt, and J.D. Steeves, (2015) Toward Inclusive Trial Protocols in Heterogeneous Neurological Disorders: Prediction-Based Stratification of Participants With Incomplete Cervical Spinal Cord Injury. Neurorehabil Neural Repair. Epub ahead of print.   
24. Schuld, C., S. Franz, H.J. van Hedel, J. Moosburger, D. Maier, R. Abel, H. van de Meent, A. Curt, N. Weidner, E.s. group, and R. Rupp, (2015) International standards for neurological classification of spinal cord injury: classification skills of clinicians versus computational algorithms. Spinal Cord. 53 (4): 324-31   
25. Franz, S., M. Ciatipis, K. Pfeifer, B. Kierdorf, B. Sandner, U. Bogdahn, A. Blesch, B. Winner, and N. Weidner, (2014) Thoracic rat spinal cord contusion injury induces remote spinal gliogenesis but not neurogenesis or gliogenesis in the brain. PLoS One. 9(7): e102896.   
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28. Tanadini, L.G., J.D. Steeves, T. Hothorn, R. Abel, D. Maier, M. Schubert, N. Weidner, R. Rupp, and A. Curt, (2014) Identifying Homogeneous Subgroups in Neurological Disorders: Unbiased Recursive Partitioning in Cervical Complete Spinal Cord Injury. Neurorehabil Neural Repair. 28(6): p. 507-515.   
29. Rupp, R., Rohm, M., Schneiders, M., Weidner, N., Kaiser, V., Kreilinger, A., and Muller-Putz, G.R. (2013) Think2grasp - BCI-Controlled Neuroprosthesis for the Upper Extremity. Biomed Tech (Berl).   
30. Sandner, B., Rivera, F.J., Caioni, M., Nicholson, L., Eckstein, V., Bogdahn, U., Aigner, L., Blesch, A., and Weidner, N. (2013) Bone morphogenetic proteins prevent bone marrow stromal cell-mediated oligodendroglial differentiation of transplanted adult neural progenitor cells in the injured spinal cord. Stem cell research. 11: 758-77   
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33. Schuld, C., Wiese, J., Franz, S., Putz, C., Stierle, I., Smoor, I., Weidner, N., and Rupp, R. (2013) Effect of formal training in scaling, scoring and classification of the International Standards for Neurological Classification of Spinal Cord Injury. Spinal cord. 51: 282-8.   
34. Hirjak, D., Thomann, P.A., Wolf, R.C., Weidner, N., and Wilder-Smith, E.P. (2013) Dissociative paraplegia after epidural anesthesia: a case report. Journal of medical case reports. 7: 56.   
35. Jadasz, J.J., Rivera, F.J., Taubert, A., Kandasamy, M., Sandner, B., Weidner, N., Aktas, O., Hartung, H.P., Aigner, L., and Kury, P. (2012) p57kip2 regulates glial fate decision in adult neural stem cells. Development. 139: 3306-15.   
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41. Lehner, B., Sandner, B., Marschallinger, J., Lehner, C., Furtner, T., Couillard-Despres, S., Rivera, F.J., Brockhoff, G., Bauer, H.C., Weidner, N., and Aigner, L. (2011) The dark side of BrdU in neural stem cell biology: detrimental effects on cell cycle, differentiation and survival. Cell Tissue Research. 345: 313-28.   
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2. N. Weidner, Spinal cord vascular disease. In: Neurological Aspects of Spinal Cord Injury. Eds: N. Weidner, R. Rupp, K. Tansey. Springer, Cham, p.109-122.   
3. N. Weidner, Z. Kohl. Metabolic, toxic, hereditary and rare causes of spinal cord disease. In: Neurological Aspects of Spinal Cord Injury. Eds: N. Weidner, R. Rupp, K. Tansey. Springer, Cham, p.195-216.   
4. Nees, T.A., N.B. Finnerup, A. Blesch, and N. Weidner, Neuropathic pain after spinal cord injury: the impact of sensorimotor activity. Pain, 2017. 158(3): p. 371-376.I. Simeonova, B. Sandner, and N. Weidner. (2017)   
5. Neural Stem Cell Transplantation for Spinal Cord Repair. In: AOSpine Masters Series: Spinal Cord Injury and Regeneration. Eds: L.R. Vialle, M.G. Fehlings, N. Weidner, Thieme, New York, p.122-131.   
6. C. Schuld and N. Weidner. (2017) Assessment of Functional Status and Outcomes of Individuals with Traumatic Spinal Cord Injury. In: AOSpine Masters Series: Spinal Cord Injury and Regeneration. Eds: L.R. Vialle, M.G. Fehlings, N. Weidner, Thieme, New York, p.11-24.   
7. Manuel Ingo Günther, Thomas Schackel, Norbert Weidner, and Armin Blesch. (2017) Hydrogel Biomaterials in Spinal Cord Repair and Regeneration. In: AOSpine Masters Series: Spinal Cord Injury and Regeneration. Eds: L.R. Vialle, M.G. Fehlings, N. Weidner, Thieme, New York, p.107-121.   
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10. Rupp R., Schliessmann D., Schuld C. and Weidner N. (2015). Technology to enhance locomotor function. In: Oxford Textbook in Neurorehabilitation. Eds: V. Dietz, N.S. Ward, Oxford University Press, p.385-394.   
11. Franz S., Hug A., and Weidner N. (2015). Functional recovery in CNS disease: impact of animal models. In: Oxford Textbook in Neurorehabilitation. Eds: V. Dietz, N.S. Ward, Oxford University Press, p.112-128.   
12. Sandner, B., Prang, P., Blesch, A. and Weidner, N. (2015) Stem cell-based therapies for spinal cord regeneration. In: Eds: H.G. Kuhn, A.J. Eisch. Humana Press/Springer. p.155-174.   
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27. Weidner N., Vroemen M. (2003) Effiziente Isolierung adulter Schwannscher Zellen aus peripheren Nerven. Laborwelt 4: 8-10.   
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Books   
1. AOSpine Masters Series: Spinal Cord Injury and Regeneration. Eds: L.R. Vialle, M.G. Fehlings, N. Weidner, Thieme, New York, 2017.   
2. Neurological aspects of spinal cord injury. Eds: N. Weidner, R. Rupp, K. Tansey, Springer, 2017.

***Thomas Bryce, MD***  
Icahn School of Medicine at Mount Sinai

**CV:**  
NAME: Bryce, Thomas Nathaniel   
POSITION TITLE: Professor of Rehabilitation Medicine   
  
A. Personal Statement   
  
I have been Medical Director of the SCI Program at Mount Sinai since 2001. I have directed the SCI research program, including the Mount Sinai Model System since 2014. I have been active in developing clinical programs at our system and have been an attending physician since 1997. I have been PI or co-Investigator on several federal, university, foundation, and industry funded grants. My research interest is in the assessment of pain after SCI.   
  
B. Positions and Honors   
  
Positions and Employment   
  
1993 – 1994 Internship, Department of Internal Medicine, Albany Medical Center Hospital, Albany, NY   
1994 – 1997 Residency, Department of Rehabilitation Medicine, Thomas Jefferson University   
Hospital, Philadelphia, PA   
1997 – 2000 Instructor, Department of Rehabilitation Medicine, Mount Sinai School of Medicine (MSSM),   
New York, NY   
2001 – Medical Director Spinal Cord Injury Program, Mount Sinai, New York, NY   
2000 – 2007 Assistant Professor, Department of Rehabilitation Medicine, MSSM, New York, NY   
2008 – 2014 Associate Professor, Department of Rehabilitation Medicine, Icahn School of Medicine at Mount Sinai (ISMMS), New York, NY   
2008 – 2010,   
2012 – Program Director Spinal Cord Injury Medicine Fellowship, ISMMS   
2014 – Professor, Department of Rehabilitation Medicine, ISMMS, New York, NY   
2014 – Associate Professor, Department of Neurosurgery, ISMMS, New York, NY   
1997 – 2007 Assistant Attending, The Mount Sinai Medical Center, New York, NY   
2007 – Attending, Mount Sinai Medical Health System, New York, NY   
  
Other Experience and Professional Membership Leadership   
  
2009, 2013 Department of Defense Congressionally Directed Medical Research Programs Spinal Cord Injury Research Program (SCIRP) Reviewer   
2007 – 2010 European Science Foundation Peer Reviewer   
2008 – 2010 The Craig H. Neilsen Foundation Grant Reviewer   
2006 – 2014 American Spinal Injury Association (ASIA) Representative for the Steering Committee for the Consortium for Spinal Cord Medicine   
2006 – ASIA/ISCoS International SCI Pain Data Set Committee   
2010 – Editorial Board for Topics in Spinal Cord Injury Rehabilitation   
2012 – ISCoS Education Committee   
2012 Canadian SCI Knowledge Mobilization Network Pain Advisory Team   
2013 – Canadian Neuropathic Pain after SCI CPG Panel   
2013 – NINDS Common Data Element Pain working Group   
2014 – Chairman, Steering Committee for the Consortium for Spinal Cord Medicine   
2014 – Board Member of NYS Spinal Cord Injury Research Board   
2014 – Data Safety Monitoring Board for ChinaSCINet sponsored Lithium trial for treatment of neuropathic pain after SCI   
2016 – International SCI Data Sets Committee   
2016 – Data Safety Monitoring Board for AOSpine North America-sponsored riluzole in spinal cord injury study (RISCIS)   
2017 – ASIA Education Committee   
  
Honors   
  
2008– Top Doctors NY Metro Area   
2008 The National Spinal Cord Injury Association Greater New York Chapter Leadership Award   
2011 New York Magazine Top Doctors   
2012– 2014 New York Super Doctors   
  
C. Contribution to Science   
  
1. My primary contributions relate to the assessment of pain after SCI. I was instrumental in developing the International Spinal Cord Injury Pain (ISCIP) Classification. This is a validated international consensus classification that was developed by representatives of all the major pain and SCI organizations, basic and clinical researchers, and SCI pain experts. The classification has been adopted into the International SCI Pain Basic Data Set as well as the SCI Common Data Elements. The classification is widely used in SCI pain research.   
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c. Bryce TN, Ivan E, Dijkers M. Proposed International Spinal Cord Injury Pain (ISCIP) Classification: Preliminary Validation Data. Topics in Spinal Cord Injury Rehabilitation 18(2): 143-145, 2012.   
  
2. In addition to the contributions described above, I also developed the Spinal Cord Injury Pain Instrument (SCIPI), an interview measure to help distinguish neuropathic from non-neuropathic pain after SCI.   
a. Bryce TN, Richards JS, Bombardier CH, Dijkers MP, Fann JR, Brooks L, Chiodo A, Tate DG,   
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experience of people with spinal cord injury. Arch Phys Med Rehabil 2004;85:1774–81.   
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Widerström-Noga E, Biering-Sørensen F, Bryce T, Cardenas DD, Finnerup NB, Jensen MP,   
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traumatic spinal cord injury: a retrospective model spinal cord injury system analysis. Arch Phys   
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Utilization and Medical Costs of Spinal Cord Injury with Neuropathic Pain in a   
Commercially-Insured Population in the United States. Arch Phys Med Rehabil. 2014 Dec;95   
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Bryce TN, Dijkers MP, Kozlowski AJ. A Framework for Assessment of the USAbility of   
Lower-Extremity Robotic Exoskeletal Orthoses. Am J Phys Med Rehabil. 2015 Jun 19.   
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E Loh, S D Guy, S Mehta, D E Moulin, T N Bryce, J W Middleton, P J Siddall, S L Hitzig, E Widerström-Noga, N B Finnerup, A Kras-Dupuis, A Casalino, B C Craven, B Lau, I Côté, D Harvey, C O'Connell, S Orenczuk, A G Parrent, P Potter, C Short, R Teasell, A Townson, C Truchon, C L Bradbury and D Wolfe. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: introduction, methodology and recommendation overview. Spinal Cord 54: S1-S6; doi:10.1038/sc.2016.88   
S Mehta, S D Guy, T N Bryce, B C Craven, N B Finnerup, S L Hitzig, S Orenczuk, P J Siddall, E Widerström-Noga, A Casalino, I Côté, D Harvey, A Kras-Dupuis, B Lau, J W Middleton, D E Moulin, C O'Connell, A G Parrent, P Potter, C Short, R Teasell, A Townson, C Truchon, D Wolfe, C L Bradbury and E Loh. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: screening and diagnosis recommendations. Spinal Cord 54: S7-S13; doi:10.1038/sc.2016.89   
S D Guy, S Mehta, A Casalino, I Côté, A Kras-Dupuis, D E Moulin, A G Parrent, P Potter, C Short, R Teasell, C L Bradbury, T N Bryce, B C Craven, N B Finnerup, D Harvey, S L Hitzig, B Lau, J W Middleton, C O'Connell, S Orenczuk, P J Siddall, A Townson, C Truchon, E Widerström-Noga, D Wolfe and E Loh. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for treatment. Spinal Cord 54: S14-S23; doi:10.1038/sc.2016.90   
S D Guy, S Mehta, D Harvey, B Lau, J W Middleton, C O'Connell, A Townson, C Truchon, D Wolfe, C L Bradbury, T N Bryce, A Casalino, I Côté, B C Craven, N B Finnerup, S L Hitzig, A Kras-Dupuis, D E Moulin, S Orenczuk, A G Parrent, P Potter, P J Siddall, C Short, R Teasell, E Widerström-Noga and E Loh. The CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: recommendations for model systems of care. Spinal Cord 54: S24-S27; doi:10.1038/sc.2016.91   
  
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Alexander MS, Anderson KD, Biering-Sorensen F, Blight AR, Brannon R, Bryce TN, Creasey G,   
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(1)157-168, 2000.   
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D, Richards JS, Ragnarsson KT (eds): Topics in Spinal Cord Injury Rehabilitation 7: 1-17, 2001.   
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Bryce TN, Gomez J. Management of pain after spinal cord injury. Curr Phys Med Rehabil Rep. 2015. DOI 10.1007/s40141-015-0092-3   
  
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Spinal Cord Medicine: principles and practice. New York: Demos, 2003.   
Bryce T, Ragnarsson, KT: Rehabilitation after spinal cord injury. In Devlin VJ, ed. Spine Secrets.   
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Bryce TN, Ragnarsson KT, Stein AS: Spinal Cord Injury. In Braddom RL, ed. Physical Medicine and   
Rehabilitation, 3rd Edition. Philadelphia: Saunders Elsevier, 2007.   
Bryce TN, Sheth P, Chen B, Ragnarsson KT: Spinal Orthoses. In Slipman CW, Derby R, Simeonw   
FA, Mayer TG eds. Interventional spine: an algorithmic approach. Philadelphia: Saunders   
Elsevier, 2008.   
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Bryce T: Pain Management in Persons with Spinal Cord Injury. In Lin V, ed. Spinal Cord Medicine:   
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Bryce TN, Ragnarsson KT, Stein AS, Biering-Sorensen F: Spinal Cord Injury. In Braddom RL, ed.   
Physical Medicine and Rehabilitation, 4th Edition. Philadelphia: Saunders Elsevier, 2010.   
Bryce TN, Huang V: Spinal Cord Injury. In Christian A, ed. Physical Medicine and Rehabilitation   
Patient-Centered Care: Mastering the Competencies. New York: Demos, 2014.   
Bryce TN, Palermo T: Pain: Overview, Assessment, and Treatment. In Vogel L, Zebracki K, Betz R,   
Mulcahey MJ ed. Spinal Cord Injury in the Child and Young Adult. Mac Keith Press, 2014.   
Bryce TN: Spinal Cord Injury. In Cifu D, ed. Braddom’s Physical Medicine and Rehabilitation, 5th   
Edition. Philadelphia: Saunders Elsevier, 2016.   
  
Books   
  
Bryce TN, ed. Spinal Cord Injury. New York, NY: Demos Medical Publishing, 2010.   
  
D. Research Support   
  
Ongoing Research Support   
  
90SI5017-01-00 NIDILRR Bryce, Thomas (PI) 9/30/2016 to 9/29/2021   
Mount Sinai Spinal Cord Injury Model Systems   
Role PI   
  
431146 Craig H. Neilsen Foundation Bryce, Thomas (PI) 1/31/2017 to 1/30/2020   
A mobile application for home evaluation and DME appropriateness for space   
Role PI   
Completed Research Support   
  
Principal Site Investigator for Stemcells: A multi-center phase 2 trial evaluating the efficacy and safety   
of our neural stem cells (HuCNS-SC) in patients with chronic cervical SCI. StemCells Inc.   
Principal Investigator Mount Sinai Spinal Cord Injury Model System Follow-up Center. NIDRR   
Principal Investigator for Leveraging applications for personalized adaptive technology solutions in the   
home and workplace. Craig H. Neilsen Foundation   
Coinvestigator Fampridine protocol No. SCI-200. A phase II, double-blind, placebo-controlled, dose   
escalating study to evaluate the safety and efficacy of oral Fampridine in patients with spinal cord   
injury. Acorda Therapeutics   
Coinvestigator Mount Sinai Spinal Cord Injury Model System. Model Spinal Cord Injury Centers   
Program. NIDRR   
Coinvestigator for Meta-analyses of pain reports and pain treatments in persons with spinal cord   
injury. NIDRR   
Coinvestigator for a prospective study of pain in persons with spinal cord injury. NIDRR   
Coinvestigator for a single-blind, placebo-controlled, multi-centered trial examining the safety,   
tolerance, and effectiveness of extended-release niacin monotherapy on dyslipidemia,   
dysmetabolic syndrome, and cardiovascular disease in persons with chronic cervical spinal cord   
injury. NIDRR   
Principal Site Investigator for A Multiple Dose, Double-blind, Placebo-Controlled, Safety, Tolerability,   
and Pharmacokinetic/Pharmacodynamic Study of HP184 in Chronic Spinal Cord Injury. Aventis   
Pharmaceuticals Inc.   
Principal Investigator for a study evaluating evoked pain after spinal cord injury using quantitative   
sensory testing   
Principal Investigator Reliability of the Bryce/Ragnarsson SCI Pain Taxonomy. American Paraplegia   
Society   
Principal Site Investigator for A Multiple Dose, Double-blind, Placebo-Controlled, Efficacy and Safety   
Study of HP184 in Chronic Spinal Cord Injury. Aventis Pharmaceuticals Inc.   
Principal Site Investigator for A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group,   
Multicentered Trial of Pregabalin for Treatment of Chronic Central Neuropathic Pain after Spinal   
Cord Injury. Pfizer Pharmaceuticals   
Principal Site Investigator for A multicenter, double-blind, randomized, placebo-controlled,   
parallel-group study of the safety and efficacy of repeat treatment with two dose levels of   
BOTOX® (Botulinum Toxin Type A) purified neurotoxin complex followed by a treatment with   
BOTOX® in patients with urinary incontinence due to neurogenic detrusor overactivity. Allergan   
Principal Investigator for A randomized, double-blind, placebo-controlled, crossover trial of modified   
release morphine for the treatment of chronic neuropathic pain after spinal cord injury. NIDRR   
Principal Investigator Reliability of the International Classification of Pain after SCI. PVA

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**Endocrine Metabolic Disease Risk - Moving from Concept to Clinical Trial Application**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***B. Catharine Craven, MD***  
Toronto Rehabilitation Institute-Uhn

**CV:**  
N   
Name Position Title   
Beverley Catharine (Cathy) Craven   
Physiatrist, Medical Lead, Spinal Cord Rehabilitation Program   
Senior Scientist, Neural Engineering & Therapeutics Team, Toronto Rehab - UHN   
Associate Professor, Dept. of Medicine, Division of PM&R, University of Toronto   
  
Education/Training   
  
York University BA 1989 Physical Education   
McMaster University MD 1994 Medicine   
McMaster University FRCPC 1998 Physiatry   
University of Toronto MSc 2007 Clinical Epidemiology   
  
  
A. Personal Statement   
  
My passions for applied physiology, care of the “whole person” with SCI, and belief in the value and effectiveness of interprofessional care have influenced my career directions and choice of research activities. My formal education has included a BA in Physical Education from York University; undergraduate medical and postgraduate specialty training in Physiatry at McMaster University; and, a Clinical Scholar year in SCI, followed by a Master’s degree in Clinical Epidemiology at the University of Toronto. My initial career focus was on describing changes in lower extremity bone mass and bone quality after SCI. My subsequent efforts and publications have aimed to help the field identify individuals with SCI, low bone mass, and high fracture risk who require therapy. This led to systematic reviews describing, and intervention studies determining, which therapeutic interventions are effective for treatment of sublesional osteoporosis. Concurrent advances in bone physiology, the muscle-bone unit and Wnt signaling, led to my conduct as Primary Investigator of intervention studies evaluating the efficacy of medical therapy (RCT - oral risedronate), and rehabilitation therapies (proof of principle - standing and whole body vibration) for augmenting lower extremity bone mass and reducing fracture risk. Over time, I have become fascinated by the related fates of bone, muscle and adipose tissue after SCI, and their roles in precipitating secondary health conditions. These tissue changes include: declines in hip and knee region bone quality; reductions in muscle density and increased Type IIb fibers; and, increases in abdominal, visceral and intramuscular fat. These events combine to directly or indirectly precipitate distal femur fracture, pressure sores, a pro-inflammatory state, cardiometabolic syndrome, and cardiovascular disease. My most recent primary and collaborative research has focused on preservation of tissue, and optimization of residual tissue function through application of medical and neurorehabilitation strategies to prevent or ameliorate fractures, heart disease and pressure sores. In addition, I have worked to advance future SCI health service delivery through leadership in the conception, design, and implementation of the 1st-7th National SCI Conference (www.sciconference.ca) and publication of the first Atlas of Canadian SCI Rehabilitation (www.idapt.com/research/e-scan).   
  
  
B. Positions/Honors   
  
05/16 Clinician Award and Leader Award University Health Network Prize / Award   
06/16 Member, Division Research Leads Committee, Dept of Medicine, University of Toronto   
08/15 Chair, Care Advisory Committee, Rick Hansen Institute   
04/15 Senior Scientist, Neural Engineering and Therapeutics Team Toronto Rehabilitation Institute   
09/15 Member, Division of PM&R Executive Committee, Research Portfolio, University of Toronto   
04/15 Member, Division of Physical Medicine and Rehabilitation Strategic Planning Oversight   
Committee, University of Toronto   
07/14 Associate Professor, Division of Physiatry, Dept. of Medicine, University of Toronto.   
10/14 Education Category Award Winner: 2nd Place, 6th National SCI Conference Prize / Award   
05/13 Division of Physiatry Achievement Award, University of Toronto Distinction   
07/14 Medical Lead, Brain and Spinal Cord Rehabilitation Program, UHN - Toronto Rehab   
Institute   
01/14 Member, Affiliate Scientist Appointment Committee, Toronto Rehabilitation Institute   
12/14 Member, International SCI Fracture History Extended Data Set Working Group (ISCOS)   
12/14 Member, International SCI Endocrine and Metabolic Extended Data Set Working Group,   
(ISCOS)   
01/16-present Adjunct Associate Professor Kinesiology, University of Waterloo   
01/11-present Active Medical Staff, Dept of Physical Medicine & Rehabilitation UHN   
06/11 Innovator of the Year Award University of Toronto Distinction   
01/11-present Physiatrist, Spinal Cord Rehabilitation Program Toronto Rehabilitation Institute   
  
  
C. Contribution to Science   
Publications   
• Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC.(2017). Agreement between fragility fracture risk assessment algorithms as applied to adults With chronic spinal cord injury. Spinal Cord. DOI: 10.1038/sc.2017.65.   
• Craven BC, Giangregorio LM, Alavinia SM, Blencowe LA, Desai N, Hitzig SL, Masani K, Popovic MR. (2017) Evaluating the efficacy of functional electrical stimulation therapy assisted walking after chronic motor incomplete spinal cord injury: effects on bone biomarkers and bone strength. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1368961.   
• Shojaei MH, Alaviniaa SM, Craven BC. Management of obesity after spinal cord injury: a systematic review. (2017). J Spinal Cord Med. DOI: 10.1080/10790268.2017.1370207.   
• Furlan JC, Gulasingam S, Craven BC. (2017).The Health Economics of the spinal cord injury or disease among veterans of war: A systematic review. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1368267.   
• Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. (2017) Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1369216.   
• Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio LM, Craven BC.(2017).The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1369248.   
• Rivers CS, Fallah N, Noonan VK, Whitehurst DG, Schwartz CE, Finkelstein JA, Craven BC, Ethans K, O'Connell C, Truchon BC, Ho C, Linassi AG, Short C, Tsai E, Drew B, Ahn H, Dvorak MF, Paquet J, Fehlings MG, Noreau L; RHSCIR Network. (2017). Health Conditions: Effect on Function, Health-Related Quality of Life, and Life Satisfaction After Traumatic Spinal Cord Injury. A Prospective Observational Registry Cohort Study. Arch Phys Med Rehabil. DOI: 10.1016/j.apmr.2017.06.012.   
• Moore CD, Craven BC, Thabane L, Papaioannou A, Adachi JD, Giangregorio LM. (2017) Does Muscle Atrophy and Fatty Infiltration Plateau or Persist in Chronic Spinal Cord Injury? J Clin Densitom. DOI: 10.1016/j.jocd.2017.06.001.   
• Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe DL, Craven BC. (2017). Rehabilitation Interventions to modify endocrine-metabolic disease risk in Individuals with chronic Spinal cord injury living in the Community (RIISC): A systematic review and scoping perspective. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1350341.   
• Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC. (2017). Agreement between fragility fracture risk assessment algorithms as applied to adults With chronic spinal cord injury. Spinal Cord. DOI: 10.1038/sc.2017.65.   
• Gibbs JC, Brown ZM, Wong AKO, Craven BC, Adachi JD, Giangregorio LM. (2017). Measuring Marrow Density and Area Using Peripheral Quantitative Computed Tomography at the Tibia: Precision in Young and Older Adults and Individuals With Spinal Cord Injury. Journal of Clinical Densitometry. S1094-6950(16): 30258-X.   
• Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe D, Craven BC. (2017). Rehabilitation Interventions to modify endocrine-metabolic disease risk in Individuals with chronic Spinal cord injury living in the Community (RIISC): A systematic review and scoping perspective. The Journal of Spinal Cord Medicine. DOI: 10.1080/10790268.2017.1350341.   
• Singh H, Shah M, Flett HM, Craven BC, Verrier MC, Musselman KE,. (2017). Perspective of individuals with sub-acute spinal cord injury after personalized adapted locomotor training. Disability and Rehabilitation. DOI: 10.1080/09638288.   
• Hoskin JD, Miyatani M, Craven BC. (2017). Quality reporting of carotid intima-media thickness methodology; Current state of the science in the field of spinal cord injury. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Miyatani M, Alavinia SM, Szeto M, Moore C, Craven BC. (2017). Association between Abnormal Arterial Stiffness and Cardiovascular Risk Factors in People with Chronic Spinal Cord Injury. European Journal of Preventive Cardiology. 24(5): 552-558.   
• Furlan JC, Craven BC, Massicotte EM, Fehlings MG.(2016). Early versus Delayed Surgical Decompression of Spinal Cord after Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. World Neurosurg. 88(1878-8750): 166-174.   
• Best K, Ethans K, Craven BC, Noreau L, Hitzig SL. (2016). Identifying and classifying quality of life tools for neurogenic bladder function after spinal cord injury: A systematic review. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Giangregorio LM, Gibbs JC, Craven BC.(2016). Measuring muscle and bone in individuals with neurologic impairment; lessons learned about participant selection and pQCT scan acquisition and analysis.Osteoporos Int. 27(8): 2433-46.   
• Furlan JC, Craven BC. (2016). Psychometric analysis and critical appraisal of the original, revised and modified versions of the Japanese Orthopaedic Association Score in the assessment of patients with cervical spondylotic myelopathy. Neurosurg Focus. 40(6): E6.   
• Guy SD, Mehta S, Casalino A, Côté I, Kras-Dupuis A, Moulin DE, Parrent AG, Potter P, Short C, Teasell R, Bradbury CL, Bryce TN, Craven BC, Finnerup NB, Harvey D, Hitzig SL, Lau B, Middleton JW, O’Connell C, Orenczuk S, Siddall PJ, Townson A, Truchon C, Widerström-Noga E, Wolfe D, Loh E. (2016). The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Treatment. J Spinal Cord Med. 54(1): S14-S23.   
• Guy SD, Mehta S, Harvey D, Lau B, Middleton JW, O'Connell C, Townson A, Truchon C, Wolfe D, Bradbury CL, Bryce TN, Casalino A, Côté I, Craven BC, Finnerup NB, Hitzig SL, Kras-Dupuis A, Moulin DE, Orenczuk S, Parrent AG, Potter P, Siddall PJ, Short C, Teasell R, Widerström-Noga E, Loh E.(2016). The CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Model Systems of Care. J Spinal Cord Med. 54(1): S24-S7.   
• Furlan JC, Craven BC, Fehlings MG.(2016). Surgical Management of The Elderly with Traumatic Cervical Spinal Cord Injury: A Cost Utility Analysis. Neurosurgery. 79(6): 418-25.   
• Mehta S, Guy SD, Bryce TN, Craven BC, Finnerup NB, Hitzig SL, Orenczuk S, Siddall PJ, Widerström-Noga E, Casalino A, Côté I, Harvey D, Kras-Dupuis A, Lau B, Middleton JW,   
• Moulin DE, O'Connell C, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Wolfe D, Bradbury CL, Loh E.(2016). The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Screening and Diagnosis Recommendations. J Spinal Cord Med. 54(1): S7-S13.   
• Chopra A, Miyatani M, Craven BC.(2016). Cardiovascular disease risk in individuals with chronic spinal cord injury: Prevalence of untreated risk factors and poor adherence to treatment guidelines. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Gagnon DH, Roy A, Verrier MC, Duclos C, Craven BC, Nadeau S. (2016). Do Performance-Based Wheelchair Propulsion Test Detect Changes Among Manual Wheelchair Users with Spinal Cord Injury during Inpatient Rehabilitation in Quebec?. Arch Phys Med Rehabil. 97(7): 1214-1218.   
• Krassioukov A, Tomasone JR, Pak M, Craven BC, Ghotbi MH, Ethans K, Martin Ginis KA, Ford M, Krassioukov-Enns D.(2016). "The ABCs of AD”: A Prospective Evaluation of the Efficacy of an Educational Intervention to Increase Knowledge of Autonomic Dysreflexia Management Among Emergency Health Care Professionals. J Spinal Cord Med.39(2): 190-196.   
  
D. Research Support   
  
11/15-11/20 Co-Investigator. Physiological Flow of Liquids Used in Dysphagia Management. National   
Institutes of Health (NIH). PI: Steele, CM. $2,576,130 USD.   
02/15-12/19 Co-Investigator. A wearable sensor for monitoring hand function at home. Rick Hansen   
Institute (RHI). PI: Zariffa, J. $75,000 CAD.   
09/16-09/19 Principal Investigator: Statin monotherapy for treatment of endocrine metabolic disease risk.   
Craig H. Neilson Foundation. PI: Craven BC. $560,944USD   
05/16-06/19 Co-Investigator. Preventing Falls One Step at a Time: Reactive Balance Training for Spinal   
Cord Injury. ONF-RHI. PI: Musselman, K. $149,866 CAD.   
03/17-05/19 Co-Principal Investigator. Rehabilitation Interventions for Individuals with SCI in the   
Community (RIISC). Ontario Neurotrauma Foundation (ONF). PI: Craven BC, Gagnon D.   
$200,000 CAD.   
01/13-06/18 Site Investigator. AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers. Ontario   
Neurotrauma Foundation (ONF). Directed Funding Initiative: VNI-ONF-Western Australia   
Colla. 634388. PI: Stacey M, Swaine J, Hayes K. $258,478 CAD.   
03/15-01/18 Co-Principal Investigator. Spinal Cord Injury (SCI) Care Indicators in Rehabilitation Project   
(SCI-HIGH). Rick Hansen Institute. PI: Craven BC, Bayley M. $ 275,000 CAD.   
04/16-04/17 Co-Investigator. Implementation Considerations for a SCI Caregiver Support Program. Craig   
H. Neilson Foundation (CHNF). PI: Jaglal SB. $96,578 USD.   
03/15-03/17 Co-Investigator. Development of a Patient Reported Outcome for Bowel Dysfunction   
following Spinal Cord Injury. Rick Hansen Institute (RHI). PI: Burns, AS. $75,000 CAD.   
09/12-11/16 Co-Investigator. Improving Cardiovascular Health for Canadians with Spinal Cord Injury:   
Effects of Exercise and Targeted Education (CHOICES). Canadian Institutes of Health   
(CIHR). PI: Krassioukov, A. $1,832,351 CAD.   
02/16-09/16 Principal Investigator. ONF-REPAR Phase III: Rehabilitation-based Research and   
Knowledge Translation Activities to Modify Health Risks for Individuals Living with Chronic   
Spinal Cord Injury. Ontario Neurotrauma Foundation (ONF)/REPAR. PI: Craven BC,   
Gagnon D. $60,000 CAD.   
10/15-09/16 Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury   
Solutions Network Grant. Rick Hansen Institute. PI: Craven, BC. $120,000 CAD.   
04/14-04/16 Co-Investigator. Bone fragility in boys with Duchenne muscular dystrophy. Physicians   
Services Incorporated Foundation (PSI). PI: Ward, L. $170,000 CAD.   
01/12-01/16 Co-Investigator. NRN Development Grant. Ontario Neurotrauma Foundation (ONF). PI:   
Musselman, K. $740,000 CAD.   
01/11-12/15 Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. Rick   
Hansen Institute. PI: Craven, BC. $30,000 CAD.

***Mark Nash, PhD***  
University of Miami Miller School of Medicine

**CV:**  
NAME   
Mark S. Nash, Ph.D., FACSM POSITION TITLE   
Professor of Neurological Surgery and Physical Medicine & Rehabilitation   
  
EDUCATION/TRAINING   
  
University of Toledo B.S. 1976 Biology   
University of Toledo M.S. 1980 Human Physiology   
University of Toledo and Medical College of Ohio at Toledo Ph.D. 1984 Applied Physiology and Clinical Anatomy   
  
A. Personal Statement   
  
My 33 years in academic medicine have focused on evidence-based approaches to identify and then intervene on all-cause vascular disorders and cardiometabolic hazards for persons with spinal cord injury and disease (SCI/D). Findings from my federal and foundation grants have yielded more than 110 peer-review publications in both human and pre-clinical animal research that are widely cited, and whose evidence-based recommendations have been translated into health-centered lifestyle intervention programs for persons with disabilities. I have served as PI for most of these studies - including multi-center randomized controlled trials (RCT) - and am thus familiar with all aspects of their operation spanning conception, planning, teambuilding and execution, data analysis, dissemination of trial findings via oral and peer-review written communications, and then translation for stakeholder benefit.   
The lineage of my work emphasizes a systematic lifestyle approach for cardiometabolic disease abatement in persons with SCI. My past work has focused on first defining these risks, and then testing key interventions for risk reduction through exercise, nutrition, behavior, and pharmacotherapy. The U.S. Department of Defense has funded my laboratory to harmonize exercise, nutrition, and behavioral interventions from the NIH-sponsored Diabetes Prevention Program for persons living with chronic SCI, and a recent award from NIDILRR will expand our multi-center trial work to focus on lifestyle interventions for dyadic partners as caregivers of persons with SCI/D with their care-receivers. As I currently serve as Chair of the Paralyzed Veterans Association Consortium for Spinal Cord Medicine Guideline Panel on Cardioendocrine Disease I am charged with leading a panel of expert clinicians and scientists to develop evidence-based clinical practice guidelines for cardiometabolic diseases in persons with SCI/D. I am thus uniquely positioned to pursue incorporation of these trial findings into practice patterns that rely on ‘best medicine’.   
  
Nash, M.S., R.E. Tractenberg, A.J. Mendez, M. David, I.H. Ljungberg, E.A. Tinsley, P.A. Burns-Drecq, L.F. Betancourt, S.L. Groah, MD. Conceptualizing Cardiometabolic Syndrome after Spinal Cord Injury/Disease: Archetypical and Alternative Risk Components in a Pooled Sample. Arch Phys Med Rehabil July 2016 dx.doi.org/10.1016/j.apmr.2016.07.002 . PMID: 27465752   
Nash, M.S., J.E. Lewis, T.A. Dyson-Hudson, Y. Szlachcic, F. Yee, A.J. Mendez, A.M. Spungen, and W.A. Bauman. Safety, Tolerance, and Effectiveness of Extended-Release Niacin Monotherapy for Treating Dyslipidemia Risks in Persons with Chronic Tetraplegia: A Randomized Multi-Center Controlled Trial. Arch Phys Med Rehabil 92(3):399-410, 2011. PMID: 21276961   
Nash, M.S., P.L. Jacobs, A.J. Mendez, and R.M. Goldberg. Circuit Resistance Training Improves the   
Atherogenic Blood Lipid Profiles of Persons with Chronic Paraplegia. J Spinal Cord Med 24(1):2-9, 2001. PMID:11587430   
  
B. Positions and Honors   
  
1984-present Instructor (Faculty) (September 1984-April 1989)   
Adjunct Assistant Professor (May 1989-February 1996) Assistant Professor [Tenure Track] (February 1996-June 2002) Associate Professor [With Award of Tenure] (June 2002-May 2009) Professor (June 2009)   
Graduate Faculty (1984-present)   
University of Miami Miller School of Medicine, Miami, Florida   
Faculty Appointments Neurological Surgery (1984-present)   
Physical Medicine & Rehabilitation (1996-present)   
Physical Therapy (1989-2010, 2014-present)   
Kinesiology & Sports Sciences (1984-present)   
1986-present Principal Investigator and Director   
Applied Physiology Research Laboratory, the Miami Project to Cure   
Paralysis University of Miami Miller School of Medicine, Miami, Florida   
2007-present Director of Research, Department of Rehabilitation Medicine University of Miami Miller School of Medicine, Miami, Florida   
1996-present Co-Director and Co-PI, South Florida Regional Spinal Cord Injury System\*, (Re-awarded by NIDILRR Department of Physical Medicine & Rehabilitation   
For 2016-2021\*) University of Miami Miller School of Medicine, Miami, Florida   
· Fellow, American College of Sports Medicine (FACSM), 1995   
· Co-Recipient (with R.S. Gailey, Ph.D.): International Forscheimer Prize in Prosthetics Research, 1995.   
· David F. Apple M.D. Award, American Spinal Injury Association, 2012.   
· Outstanding Conference Oral Paper Awards:   
· Annual Scientific Meeting of the American Spinal Injury Association (ASIA)   
· Award Nominations: 2005, 2008, 2010, 2013; 1st, 2005 and 2010, 2nd, 2013   
· Annual Scientific Meeting of the International Spinal Cord Society (ISCoS), 2nd (2014)   
· Veterans Administration Rehabilitation Research and Development (RR&D) Merit Grant Review:   
· Neurological Dysfunction and Spinal Cord Injuries: Restoration Rehabilitation, 1994-2005   
· Geriatric Rehabilitation/Rehabilitation Health Services and Outcomes, 1999-2002   
· Neurology, 2002-2003   
· Scientific Program (SPIRE) Grants, 2013   
· Department of Veterans Affairs, Office of Academic Affiliations: Pre-Doctoral Associated Health Rehabilitation Research Fellowship Program, 2001   
· National Institute for Disability and Rehabilitation Research, Department of Education: Field-initiated Standing Panel (Health and Function), Term Appointments; 2005-2008, 2009-2012, 2013-2016   
· National Institutes of Health, Center for Scientific Review: Special Emphasis Panel on Disabilities, 2006   
· Centers for Disease Control and Prevention: Special Emphasis Panel on the Health and Wellness of People with Disabilities, 2006   
· National Institute for Disability and Rehabilitation Research, Department of Education: Panel on Evaluation of Rehabilitation Engineering Research Centers, 2007, 2012   
· Rehabilitation Subcommittee, Research Advisory Board (RAB), Shriners Children's Hospitals International, 2005-present   
· National Institute for Disability and Rehabilitation Research, Department of Education: Fellowship Awards Panel, 2010   
· Chair, Carbohydrate and Lipid Clinical Guideline Development Panel, Consortium for Spinal Cord Medicine, Paralyzed Veterans Association of America; 2011-present   
· Research and Awards Committee, American Spinal Injury Association   
· Member, May 2011-April 2014; Vice-Chair May 2014-April 2015; Chair, April 2015-present   
· Member: Stoke Mandeville-Masson Research Advisory Panel, 2014-present   
· Chair, SCI Extended Data Set Panel on Voluntary Exercise, NINDS/ISCoS 2015-present   
  
C. Contributions to Science   
I describe three representative areas of contributions to science that are derived from my 110 peer-reviewed manuscripts, 22 peer-review research monographs and book chapters, and one edited textbook. These contributions emphasize my work in: 1. Defining health hazards associated with cardiometabolic disease, 2. testing of interventions that lessen these risks, and 3. creating evidence-based expert opinions that guide practice patterns for health care professionals.   
1. My colleagues and I have extensively examined the hazards of cardioendocrine disease and its component risk in persons with SCI. These studies have defined both the prevalence of the problem as well as the specific nature of the cardioendocrine risk. Two of these studies were the first to identify postprandial lipemia as a silent cardioendocrine risks after SCI, and to focus on excessive proatherogenic cytokine activity as possible progenitors of early vascular damage. Results from these studies lead to a grant award to pursue animal research in my lab that is examining an overweight body habitus in mice with a double mutation at the ApoE gene, and how an overweight body habitus in mice with experimental SCI accelerates dysglycemia and atherogenic lesions.   
Nash, M.S., R.E. Tractenberg, A.J. Mendez, M. David, I.H. Ljungberg, E.A. Tinsley, P.A. Burns-Drecq, L.F. Betancourt, S.L. Groah, MD. Conceptualizing Cardiometabolic Syndrome after Spinal Cord Injury/Disease: Archetypical and Alternative Risk Components in a Pooled Sample. Arch Phys Med Rehabil 97(10):1696-1705, 2016. PMID:27465752   
Ellenbroek, D., J. Kressler, R.E. Cowan, P.A. Burns, A.J. Mendez, A.E. Palermo, and M.S. Nash. Effects of   
Prandial Challenge on Triglyceridemia, Glycemia, and Pro-inflammatory Activity in Persons with Chronic Paraplegia. J Spinal Cord Med 38(4):468-75, 2015. PMID: 24617559   
Gilbert, O., J.R. Croffoot, A.J. Taylor, M.S. Nash, S.L. Groah, and K. Schomer, M.A. Serum Lipid Concentrations Among Persons with Spinal Cord Injury: A Systematic Review and Meta-Analysis of the Literature. Atherosclerosis 232:305-12, 2014. PMID: 24468143   
Groah, S.L., M.S. Nash, E.A. Ward, A. Libin, A.J. Mendez, P.A. Burns, M. Elrod, and L.F. Hamm. Cardiometabolic Risk Clustering in Spinal Cord Injury: Results of Exploratory Factor Analysis. J Cardiopulm Rehabil Prev 31(2):73–80, 2012. PMID: 23960702   
Nash, M.S. and A.J. Mendez. A Guideline-Driven Assessment of Need for Cardiovascular Disease Risk Intervention in Persons with Chronic Paraplegia. Arch Phys Med Rehabil 88:751-7, 2007. PMID: 17532897   
2. We have extensively studied the effects of exercise on fitness, and provide the first evidence for the superiority of circuit resistance training as an intervention mode for cardioendocrine risk lessening. The American Physical Therapy Association has recommended this approach as the model for exercise conditioning after SCI, which is based on our grant and published works. We have extended this work to successful testing of older individuals with SCI, to individuals with chronic tetraplegia, and the first study to test post-exercise nutritional supplementation as a tool for enhancing exercise performance.   
Kressler, J., Jacobs, K., Burns, P., Betancourt, L., and Nash, M.S. Effects of Circuit Resistance Training and   
Timely Protein Supplementation on Exercise-Induced Fat Oxidation in Tetraplegic Adults. Top Spinal Cord Inj Rehabil 20(2):113-22, 2014. PMID: 25477733   
Kressler, J., Burns, P.A., Betancourt, L., and Nash, M.S. Circuit Training and Protein Supplementation in Persons with Chronic Tetraplegia. Med Sci Sports Exerc 46(7):1277-84, 2014. PMID: 24389521   
Nash, M.S., I.van de Yen, N. van Elk, M.S. and B.M. Johnson. Effects of Circuit Resistance Training on Fitness Attributes and Upper Extremity Pain in Middle-Aged Men with Paraplegia. Arch Phys Med Rehabil 88(1):70-5, 2007. PMID: 17207678   
Nash, M.S., P.L. Jacobs, A.J. Mendez, and R.M. Goldberg. Circuit Resistance Training Improves the Atherogenic Blood Lipid Profiles of Persons with Chronic Paraplegia. J Spinal Cord Med 24(1):2-9, 2001. PMID: 11587430   
Jacobs, P.L., M.S. Nash, and J.W. Rusinowski. Circuit Resistance Training Provides Cardiorespiratory and Strength Benefits in Persons with Paraplegia. Med Sci Sports Exerc 33(5):711-7, 2001. PMID: 11323537   
3. Our collective works and evidence-based opinions have led to invited peer-review research monographs that have provided normed data evidence-based health recommendations for exercise, nutrition and behavioral intervention for persons with SCI.   
Nash, M.S. and J. Kressler. Model Programs to Address Obesity and Cardiometabolic Disease: Interventions for Suboptimal Nutrition and Sedentary Lifestyles Arch Phys Med Rehabil (2016), doi:10.1016/j.apmr.2016.05. PMID: 27422346   
Simmons, O.L., J. Kressler, and M.S. Nash. Reference Fitness Values in the Untrained Spinal Cord Injury Population. Arch Phys Med Rehabil DOI: 10.1016/j.apmr.2014.06.015. PMID: 25007709   
Nash, M.S., R.E. Cowan, and J. Kressler. Evidence-based and Heuristic Approaches for Customization of Care in Cardiometabolic Syndrome after SCI. J Spinal Cord Med 35(5):278-92, 2012. PMID: 23031165 PMCID: PMC3459557   
Cowan, R.E., L.A. Malone, and M.S. Nash. EXERCISE is Medicine©: Exercise Prescription after SCI to Manage CVD Risk Factors. Top Spinal Cord Inj Rehabil 14(3):69-83, 2009.   
doi:10.1310/sci1403-69   
Dyson-Hudson, T. and M.S. Nash. Guideline-Driven Assessment of Cardiovascular Disease and Related Risks after SCI. Top Spinal Cord Inj Rehabil 14(3):32-45, 2009. doi: 10.1310/sci1403-32   
  
D. Research Support: Selected Ongoing Research Support   
  
W81XWH-13-1-0479 (Shafazand) 10//1/2013 - 9/30/2017   
U.S. Department of Defense – SCIRP   
Neuro-cognitive Decline and Sleep-Disordered Breathing after SCI   
The major goal of the project is to examine the relationship between cognitive function and Sleep-Disordered   
Breathing in persons with chronic SCI   
Role: Co-PI   
340428 (Nash, PI) Craig H. Neilson Foundation 10/1/2015 - 9/30/2017   
A Time-Course Study of Experimental Cardiometabolic Risk/Disease after SCI   
The goal of the project is to examine in an ApoE knockout mouse model whether SCI accelerates early aortic atherosclerotic plaque formation; modifies expression of aortic genes that contribute to the development of atherosclerosis; induces inflammasome formation as a marker of systemic inflammatory stress; and alters lipid and lipoprotein levels to a more atherogenic phenotype.   
90DP0074-01-00 (Nash, PI) DHHS/NIDILRR 10/2015 - 9/2020   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment   
The project goals are to test: a) the impact of a model SCI lifestyle intervention (LI) program on attributes of health and function that are recognized to compromise their healthy aging in persons with SCI living in caregiver/care-receiver relationships, b) examine the impact of the LI on the relationship of the caregiver/care-receiver dyad, and c) determine whether co-intervention with the caregiver improves health/function outcomes for their partner.   
90SI5023-01-00 (Felix) DHHS/NIDILRR 10/2016 – 9/2021   
South Florida Regional Model Spinal Cord Injury (SCI) System   
The goals of the project are to collect data on acutely injured persons with SCI and follow their progress   
through annual re-assessment, perform site-specific research that reduces the risk of upper limb dysfunction,   
and collaborate on multi-site research that reduces secondary complications of SCI.   
Role: Co-PI and Co-Director

***Kim Anderson-Erisman, PhD***  
University of Miami Miller School of Medicine

**CV:**  
NAME: Kimberly Dawn Anderson   
  
POSITION TITLE: Research Professor; Director of Education   
  
EDUCATION/TRAINING   
Texas A&M University, Galveston B.S. 1990-1995 Marine Biology   
Univ. of New Mexico Sch. of Med., Albuquerque Ph. D. 1996-2000 Biomedical Sciences   
University of California, Irvine Post-doc 2000-2004 Spinal Cord Injury   
  
  
A. Personal Statement   
My research experience spans from cellular and molecular neuroscience in graduate school, to in vivo animal models of cervical spinal cord injury (SCI) and forelimb function as a post-doctoral fellow, to clinical studies as an Adjunct Assistant Professor at UC Irvine. I purposefully gained experience in those three very different avenues of research. I wanted to use my personal experience and knowledge gained from living with a spinal cord injury for 27 years combined with my detailed understanding of cellular, whole animal, and human research to make a unique difference in the lives of many people living with SCI. The opportunity to do so availed itself to me in 2009 and I joined the Miami Project as the Director of Education. In addition to continuing my outreach and education efforts, I have continued a research track. I was the PI conducting a multi-center clinical trial validating the Spinal Cord Independence Measure (SCIM III) in the US healthcare setting. I was recently the Chair of the NINDS SCI CDE Functional Outcomes Working Group. Several of my studies have focused on obtaining the perspective of people living with SCI on various aspects of research, including functional priorities, acceptable benefits and risks, preferences for neuroprosthetics, and exercise participation. One of my current projects focuses on identifying the facilitators and barriers to clinical trial participation from the SCI consumer perspective. I have significant experience with consumer-oriented research. In addition, Dr. Allan Levi (neurosurgeon) and I are leading our FDA-regulated Schwann cell program, which includes a phase I trial targeting subacute SCI, expanded access for 2 patients with severe peripheral nerve injury, and a phase I trial to target chronic SCI.   
  
B. Positions and Honors   
  
Positions and Employment   
1996-2000 Graduate Research Assistant, Dept. Neurosciences, Biomedical Sciences Graduate Program, Univ. of New Mexico   
2000-2004 Post-doctoral Fellow, Reeve-Irvine Research Center, Dept. Anatomy & Neurobiology, Univ. of   
California, Irvine   
2004-2009 Assistant Adjunct Professor, Reeve-Irvine Research Center, Dept. Neurological Surgery,   
University of California, Irvine   
2009-2010 Visiting Project Scientist, Reeve-Irvine Research Center, Dept. Neurological Surgery, University of California, Irvine, School of Medicine   
2009-present Director of Education, The Miami Project to Cure Paralysis, University of Miami   
2011-2017 Research Associate Professor, Dept. Neurological Surgery, The Miami Project to Cure   
Paralysis, University of Miami   
2017-present Research Professor, Dept. Neurological Surgery, The Miami Project to Cure Paralysis,   
University of Miami   
  
Other Experience and Professional Memberships   
5/22/2006 Grant reviewer for U.S. Department of Education, National Institute on Disability and   
Rehabilitation Research, 2006 Spinal Cord Injury Model System Centers Program Grant Review   
3/16/2007 Ad hoc grant reviewer for the National Institute of Child Health and Human Development (NICHD)   
spring Population Sciences Committee   
3/29/2007 Ad hoc grant reviewer for the Craig H. Nielsen Foundation spring cycle   
3/16/2009 Ad hoc grant reviewer for Craig H. Neilsen Foundation, Spring 2009 Grant Review   
3/31/2009 Ad hoc grant reviewer for Ontario Neurotrauma Foundation, Studentship/Fellowship Grant   
Review   
6/12/2009 Special Emphasis Panel/Scientific Review Group RFA-OD-09-003 Challenge Grant Panel 11,   
NIH   
1/12/2010 Department of Defense, U.S. Army Medical Research and Materiel Command, Congressionally   
Directed Medical Research Programs, Spinal Cord Injury Research Program Grant Review   
2/21/2010 Alberta Paraplegic Foundation, Spring 2010 Grant Review   
2010-2015 Expert Review Panel Member, Quality of Life Grants, Christopher and Dana Reeve Foundation   
2012-present National SCI Association Medical and Scientific Advisory Committee Member   
2012 Ad hoc grant reviewer for Patient Centered Outcomes Research Institute   
2013 Grant reviewer for U.S. Department of Education, National Institute on Disability and Rehabilitation Research, DRRP Health and Function of Individuals with Disabilities Grant Review   
1998-present Society for Neuroscience   
2000-present National Neurotrauma Society   
2004-present American Spinal Injury Association (ASIA)   
2005-2009 UCI General Clinical Research Center Advisory Committee   
2005-2015 ASIA Membership Committee   
2006-2008 ASIA Outcome Measures – Functional Recovery Sub-committee member   
2006-2012 Member, Geron ESCRO (embryonic stem cell research oversight) Committee   
2007-2011 Committee Member, National Advisory Board for Medical Rehabilitation Research, NICHD, NIH   
2008-2010 Pan-Canadian Spinal Cord Injury Solutions Network-Translational Research Program, Research   
Advisory Committee Member   
2008-2010 North American Spine Society, International Education Committee, Member   
2008-present International Spinal Cord Society (ISCoS)   
2009-presnet Spinal Cord Outcomes Partnership Endeavor (SCOPE), Member   
2009-2013 Optimizing Participation Through Technology – Rehabilitation Engineering Research Center   
(OPTT-RERC) Advisory Board Member, University of Southern California   
2012-present ASIA Program Committee, Member   
2013-present Chair, Spinal Cord Injury Functional Assessments Common Data Elements Working Group,   
NINDS, NIH   
2013-present Asterias ESCRO (Embryonic Stem Cell Research Oversight) Committee, Member   
2014-2016 Praxis 2016 Program Advisory Committee, Rick Hansen Institute   
2015-present ASIA Research and Awards Committee, Member   
2015-2017 Councilor, National Neurotrauma Society   
2017-present ASIA Board of Directors   
  
Honors   
1997-2000 NIH Research Supplement for Individuals with Disabilities (Graduate Student)   
1997 Department of Energy Committee for People with Challenged Abilities Scholarship   
2000 Khatali Award for Outstanding Senior Graduate Student   
2000-2001 NIH Research Supplement for Individuals with Disabilities (Post-doctoral Fellow)   
2004 Stephen Aroff Memorial Award for a person with a spinal cord injury   
2005 Paul H. Silverman Award for Outstanding Work on Science and Ethics   
2006 Jerry Stein Independent Living Award   
2007 Inducted into the SCI Hall of Fame in category of Research in Basic Science   
2009 Ed Roberts Independent Living Award   
2010 “Empower and Revitalizing Urban Communities”, Outstanding Career Mentor Award   
  
C. Contribution to Science   
  
1. My primary contributions to the field focus on the identification of research priorities of the human population living with SCI. My seminal publication in 2004, “Targeting recovery: Priorities of the spinal cord injured population”, has had significant impact on both the basic and clinical SCI research arenas. It is now the 3rd most cited article in the Journal of Neurotrauma. Individuals living with a disease should be included in the research process and my research has demonstrated that useful information can be obtained from the population living with SCI and that it can be used to shape the research agenda. There has been an increase in research addressing upper extremity function and autonomic function after SCI, the 2 highest priorities, as a result of my research contributions. I served as the primary investigator in all of these studies.   
  
a. Anderson, KD. (2004). Targeting recovery: Priorities of the spinal cord injured population. J. Neurotrauma. 21:1371-1383.   
b. Anderson, KD, Borisoff, JF, Johnson, RD, Stiens, SA, Elliott, SL. (2007). The impact of spinal cord injury on sexual function: concerns of the general population. Spinal Cord 45:328-337.   
c. Cowan RE, Nash MS, Anderson KD. (2013). Exercise participation barrier prevalence and association with exercise participation status in individuals with spinal cord injury. Spinal Cord. 51(1):27-32.   
d. Anderson KD, Cowan RE, Horsewell J. (2016). Facilitators and barriers to spinal cord injury (SCI) clinical trial participation: Multi-national perspective of people living with SCI. J. Neurotrauma. 33:493-499.   
  
2. I have also led and/or collaborated with multiple investigators an area of research aimed at improving outcome assessments for SCI, particularly for use in clinical trials. The Functional Independence Measure had by default become the gold standard for measuring whole body function in SCI, yet it was not designed for SCI and is quite insensitive. My collaborative research has now enabled the Spinal Cord Independence Measure to become the outcome measure of choice when it comes to overall function. It was designed specifically for SCI, it is sensitive to change, it is now highly recommended by NIH SCI Common Data Elements as the primary outcome measure to evaluate overall function, and it is being used in multiple clinical trials.   
  
a. Anderson, K, Aito, S, Atkins, M, Biering-Sørensen, F, Charlifue, S, Curt, A, Ditunno, J, Glass, C, Marino, R, Marshall, R, Mulcahey, MJ, Post, M, Savic, G, Scivoletto, G, Catz, A. (2008). Functional Recovery Measures for Spinal Cord Injury: Comparison by a Multi-National Work Group. J. Spinal Cord. Med. 31:133-144.   
b. Anderson KD, Acuff ME, Arp BG, Backus D, Chun S, Fisher K, Fjerstad JE, Graves DE, Greenwald K, Groah SL, Harkema SJ, Horton III JA, Huang M-N, Jennings M, Kelley KS, Kessler SM, Kirshblum S, Koltenuk S, Linke M, Ljungberg I, Nagy J, Nicolini L, Roach MJ, Salles S, Scelza WM, Read MS, Reeves RK, Scott MD, Tansey KE, Theis JL, Tolfo CZ, Whitney M, Williams CD, Winter CM, Zanca JM. (2011). United States (US) multi-center study to assess the validity and reliability of the Spinal Cord Independence Measure (SCIM III). Spinal Cord. 49:880-885.   
c. Steeves JD, Lammertse DP, Kramer LK, Kleitman N, Kalsi-Ryan S, Jones L, Curt A, Blight AR, Anderson KD. (2012). Outcome Measures for Acute/Subacute Cervical Sensorimotor Complete (AIS-A) Spinal Cord Injury During a Phase 2 Clinical Trial. Top Spinal Cord Inj Rehabil. 18(1):1–14.   
d. Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. (2015). Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord. 53:265-277.   
  
3. My early work directly addressed molecular mechanisms of axonal regeneration. The Growth Associated Protein 43 (GAP-43) mRNA is upregulated after neuronal injury but is unstable and quickly degraded. The RNA-binding protein HuD can bind to the 3’ UTR of the GAP-43 mRNA transcript and enhance stability. My work established that overexpessing HuD promoted neurite outgrowth in different cell culture models by stabilizing the GAP-43 mRNA and allowing more protein to be translated. I was performing this research as a graduate student with Dr. Nora Perrone-Bizzozero as part of my dissertation.   
a. Mobarak CD, Anderson KD, Beckel-Mitchener A, Rogers SL, Furneaux H, Perrone-Bizzozero NI (2000) The RNA-binding protein HuD is required for GAP-43 mRNA stability, GAP-43 gene expression, and PKC-dependent neurite outgrowth in PC12 cells. Mol. Biol. Cell. 11:3191-3203.   
b. Anderson KD, Morin M, Beckel-Mitchener A, Mobarak C, Neve RL, Furneaux HM, Burry R, Perrone-Bizzozero NI (2000) Overexpression of HuD, But Not of Its Truncated Form HuD I+II, Promotes GAP-43 Gene Expression and Neurite Outgrowth in PC12 cells in the Absence of NGF. J. Neurochem. 75:1103-1114.   
c. Anderson KD, Sengupta J, Morin M, Neve RL, Valenzuela CF, Perrone-Bizzozero NI (2001) Overexpression of HuD accelerates neurite outgrowth and increases GAP-43 mRNA expression in cortical neurons and retinoic acid-induced embryonic stem cells in vitro. Exp. Neurol. 168:250-258.   
d. Anderson KD, Merhege MA, Morin M, Bolognani F, Perrone-Bizzozero NI (2003) Increased expression and localization of the RNA-binding protein HuD and GAP-43 mRNA to cytoplasmic granules in DRG neurons during nerve regeneration. Exp. Neurol. 183:100-108.   
  
4. Another phase of research focused on forelimb function after cervical spinal cord injury (SCI) in rodents. I established the natural recovery profile of gripping ability in mice and rats and the relationship to corticospinal integrity. We went on to develop the first bilateral contusion injury model in the cervical region of the rat spinal cord and the subsequent novel Forelimb Locomotor Assessment Scale. This work led to an increase in cervical SCI research in the field, which had previously been dominated by thoracic injury. I performed this research as a post-doctoral fellow and junior faculty member with Dr. Oswald Steward.   
  
a. Anderson KD, Abdul M, Steward O (2004) Quantitative assessment of deficits and recovery of forelimb motor function after cervical spinal cord injury in mice. Exp. Neurol. 190:184-191.   
b. Anderson KD, Gunawan A, Steward O (2007) Spinal pathways involved in the control of forelimb motor function in rats. Exp. Neurol. 206:318-331.   
c. Anderson KD, Sharp KG, Hofstadter M, Irvine KA, Murray M, Steward O (2009) Forelimb Locomotor Assessment Scale (FLAS): A new tool to assess forelimb dysfunction after cervical spinal cord injury. Exp. Neurol. 220:23-33.   
d. Anderson KD, Sharp KG, Steward O (2009) Bilateral cervical contusion spinal cord injury in rats. Exp. Neurol. 220:9-22.   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/1j7AeQ3Zue7A6/bibliography/45178578/public/?sort=date&direction=descending   
  
D. Research Support   
  
Ongoing Research Support   
Nash (P.I), Anderson (Co-I.) 2015-2020   
U.S. Department of Education, National Institute on Disability, Independent Living, and Rehabilitation Research   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment   
  
Craven (P.I.), Nash (Co-I.), Anderson (Co-I.) 2016-2019   
Craig H. Neilsen Foundation   
Statin Monotherapy for Treatment of Endocrine Metabolic Disease Risk   
  
Widerstrom-Noga (P.I.), Anderson (Co-I.) 2015-2018   
U.S. Department of Defense, Spinal Cord Injury Research Program   
Perspectives in Management of Severe Neuropathic Pain After a Spinal Cord Injury   
  
Brackett (P.I.), Anderson (Co-I.) 2015-2018   
Craig H. Neilsen Foundation   
Management of Infertility in Men with SCI: An Educational Program for Practitioners and Clients   
  
R25NS083064 Anderson (P.I.), Dietrich (Co-P.I.) 2013-2018   
National Institutes of Health, NINDS   
NIH Neurotrauma Summer Research Experience Program   
  
Anderson (P.I.) 2014-2018   
Craig H. Neilsen Foundation   
The Miami Project to Cure Paralysis Education Program   
  
Anderson (P.I.) 2014-2018   
Bryon Riesch Foundation   
The Safety of Autologous Human Schwann cells (ahSC) in Subjects with Chronic Spinal Cord Injury (SCI) Receiving Rehabilitation - Screening   
  
Completed Research Support   
Levi (P.I.), Anderson (Co-I.) 2014-2016   
StemCells Inc.   
A Single-Blind, Randomized, Parallel Arm, Phase II Proof-of-Concept Study of the Safety and Efficacy of HuCNS-SC Transplantation in Cervical Spinal Cord Injury   
  
Widerstrom-Noga (P.I.), Anderson (Co-I.) 2012-2015   
U.S. Department of Defense, Spinal Cord Injury Research Program   
Experiences of living with persistent pain after a spinal cord injury   
  
Anderson (P.I.), Field-Fote (Co-I.), Nash (Co-I.), Thomas (Co-I.), Widerstrom-Noga (Co-I.) 2013-2014   
Robert J. Kleberg, Jr. and Helen C. Kleberg Foundation   
Exercise and Locomotor Training Required for Clinical Trials Targeting Chronic Spinal Cord Injury

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**Pediatric Spinal Cord Injury: Quality of Life Enhancement Through Learning to Eat and Speak Again**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Kayla Maldonado, MS, CCC-SLP, CBIS***  
Children's Hospital Los Angeles

**CV:**  
K. Tatiana Maldonado, MS, CCC-SLP, CBIS   
1020 Doreen Place, #2, Venice CA, 90291   
Tel: 213-422-9206 Ktm244@gmail.com   
  
  
EXPERIENCE   
  
Speech-Language Pathologist II, Children’s Hospital Los Angeles, Los Angeles, CA (2014-Present)   
Full-time employment in the acute care medical setting, focusing on the complex medical needs of patients ranging in age from high risk infants to young adults. Consistent coverage provided to pediatric rehabilitation unit and outpatient clinics. Certified bilingual employee (English and Spanish) with ability to interpret complicated medical information. Clinical roles and committee involvement listed in designated sections provided below.   
  
Speech-Language Pathologist, Shady Grove Adventist Hospital, Shady Grove, MD (2013-2014)   
Per-diem employment in the acute care medical setting, focusing on adults with dysphagia and acute cognitive-linguistic impairments following stroke and/or traumatic brain injury. Instrumental assessment and clinical bedside assessments of swallow completed.   
  
Staff Speech-Language Pathologist , National Rehabilitation Hospital, Washington DC (2012-2014) Full-time employment in the racute rehabilitation setting focsing on the complex medical needs of pediatric and adult patients following acute Spinal Cord Injury and Traumatic Brain Injury. Clinician roles and mentorship listed in designated sections provided below.   
  
  
EDUCATION   
  
Master of Science Degree, Gallaudet University   
Speech-Language Pathology   
  
Bachelor of Arts Degree, University of California, Los Angeles (UCLA)   
Linguistics; Psychology   
  
CERTIFICATION AND MEMBERSHIPS   
  
American Speech-Language-Hearing Association (ASHA), Certificate of Clinical Competency, 2012- present   
  
American Spinal Injury Association, Pediatric Subcommittee Member, 2016-present   
  
American Spinal Injury Association Member, 2015-present   
  
California Speech and Language Pathology State Licensure, 2014-2016   
  
California Children’s Service (CCS Paneled), 2014-present   
  
California Speech and Language Pathology State Licensure, 2014-2016   
  
Maryland Speech and Language Pathology State Licensure, 2013-2014   
  
Washington D.C. Speech and Language Pathology State Licensure, 2012-2014   
  
National Student Speech-Language Hearing Association (NSSHLA), 2011-2012   
  
COMMITTEE AFFILITIATION AND MENTORSHIP   
  
Children’s Hospital Los Angeles: Dysphagia Committee member; Systems Improvement Committee member; Competancy Working Group member   
  
National Rehabilitation Hospital: Trainer and Mentor for Modified Barium Swallow Study (MBSS) candidacy and placement of Passy Muir Speaking Valve (PMSV).   
  
  
PRESENTATIONS   
Children with Spinal Cord Injury: A Complex Road to Management of Voice and Swallow Function (November 9, 2017). American Speech-Language-Hearing Association (ASHA) Annual Convention. Los Angeles, CA   
Swallow Safety and Voice with SCI: The Pediatric Speech Pathologist’s Role (April 26-29). American Spinal Injury Association (ASIA) 2017 Annual Scientific Meeting. Albuquerque, New Mexico   
  
AWARDS/NOMINATIONS   
  
Pediatric Aural Rehabilitation Emphasis (PARE) Grant, 2010   
  
Clinician of the Year Award, Gallaudet University, 2011   
  
PROFESSIONAL ORGANIZATIONAL AFFILIATION/ROLES   
  
Gabriel House (Ensenada, Mexico): Biannually volunteer in collaboration with USC and the Pasadena Rotary Club to provide communication supports, education to house staff and therapists, and dysphagia assessment for high risk children and young adults in Mexico (2015-present).   
  
AssistiveWare: Provided feedback on Spanish language AAC product (Proloquo2GOo) , including changes to vocabulary and grammar. These products assist patients that cannot communicate verbally. (2015-2016).

***Katy Peck, M.A., CCC-SLP, CBIS, CLC, BCS-S***  
Children's Hospital Los Angeles

**CV:**  
Katy Peck, M.A., CCC-SLP, CBIS, CLC, BCS-S   
321 12th St Apt #2, Huntington Beach, CA 92648   
Tel: 949 382-5314 Kpeckfrost@yahoo.com   
  
EXPERIENCE   
Speech and Language Pathologist II, Hoag Hospital, Newport Beach, CA (December 2015-June 2016)   
Per diem employment in the acute care medical setting, focusing on adults with dysphagia. Instrumental assessment and clinical bedside assessments of swallow completed.   
  
Speech and Language Pathologist IV, Children’s Hospital Los Angeles, Los Angeles, CA (2006-Present)   
Full-time employment in the acute care medical setting, focusing on the complex medical needs of patients ranging in age from high risk infants to young adults. Clinical roles, mentorship responsibilities, and committee involvement listed in designated sections provided below.   
  
Post Baccalaureate Instructor, Chapman University, Orange, CA (2014-Present)   
Instructor for the Post Baccalaureate Program in Communication Sciences and Disorders Department, Anatomy and Physiology Course (Fall 2014) and Clinical Methods and Procedure (Spring 2015).   
  
Pediatric Clinical Specialist, Passy Muir, Inc. (2010-Present)   
Consultant providing education in multiple forums, including: In-services, special event webinars, exhibits, and poster sessions. Developed materials for the Passy Muir website, including: videos of treatment approaches and instrumental assessment, responses to frequently asked questions, and forms to track therapy data and wear-time.   
  
Speech and Language Pathologist, May Center for NeuroRehabilitation, Brockton, MA (2005-2006)   
Full-time employment in a nonpublic school for children with acquired brain injury in school, residential, and vocational settings. Participated in staffing and chart rounds; completed Individualized Education Plans (IEP); provided interdisciplinary collaboration with allied health, nursing, behavioral analyst, educational supervisors, teachers, family services, and vocational counselors. Participated in Modified Barium Swallow Studies (MBSS) and provided ongoing management of dysphagia. Physical and Psychological Management Training (PMT) used for crisis behavior management.   
  
Speech and Language Pathologist, Children’s Hospital of Orange County, Orange, CA (2004-2005)   
Per diem employment in inpatient and outpatient medical settings. Performed diagnostic assessments and provided therapy for children who sustained brain injuries or suffered other serious medical conditions, which resulted in cognitive-communication deficits.   
  
Speech and Language Pathologist, SeaStar School for NeuroEducation, Tustin, CA (2003-2005)   
Full-time employment in a non-profit private school setting serving students (5-21 years old) who sustained acquired brain injuries. Lead therapist and supervisor for contracted service providers. Served on school-wide committees to address clinical issues and develop curriculum standards. Managed behaviors using principles of Applied Behavioral Analysis (ABA), including: Documentation of incidents, data collection, and application of Professional Assault Response Training (PART) principles in crisis management. In-services to staff and caregivers on topics relative to dysphagia management provided.   
  
  
  
  
Speech and Language Pathologist, Alex Center, Tustin, CA (2000-2003)   
Responsibilities consistent with those listed above for the SeaStar School for NeuroEducation. The Center was managed by Bancroft NeuroHealth, prior to transition in management to the Brain Injury Foundation.   
  
Speech and Language Pathologist, Tustin Speech and Language Center, Tustin, CA (2000-2005)   
Full-time therapist (transitioned to per diem employment) serving multiple populations in an outpatient setting. Populations included the following: craniofacial, aphasia, dysphagia, brain injury, early intervention, hearing impairment, voice, and sensory integration.   
  
Speech and Language Pathologist, Orange Grove Rehabilitation Hospital, Orange Grove, CA (2000-2001)   
Part-time therapist (contracted) in a subacute rehabilitation setting. Responsible for diet-texture analysis, clinical bedside swallow examinations, and treatment of cognitive linguistic deficits.   
  
EDUCATION   
  
Master of Arts Degree, Eastern Michigan University   
Speech and Language Pathology   
  
Bachelor of Arts Degree, Michigan State University   
Audiology and Speech Sciences   
  
Postgraduate Credential, California State University   
Physical and Health Impairments- Pending   
  
CERTIFICATION AND MEMBERSHIPS   
  
American Speech-Language-Hearing Association (ASHA), Certificate of Clinical Competency, 1998- present   
  
American Brain Injury Association, Certified Brain Injury Specialist (CBIS), 2005-present   
  
California Speech and Language Pathology State Licensure, 2000-present   
  
Massachusetts Speech and Language Pathology State Licensure, 2005-2008   
  
California Children’s Services (CCS Paneled), 2006-present   
  
Certified Lactation Educator, UCSD Extension, 2011-present   
  
Board Certified Specialist, Swallowing and Swallowing Disorders, April 2013-present   
  
COMMITTEE AFFILITIATION AND MENTORSHIP   
American Speech-Language-Hearing Association Program Planning Committee (2013-2014 Annual Convention)   
  
Board Certified Specialist, Swallowing and Swallowing Disorders Mentor, May 2013-present   
  
Children’s Hospital Los Angeles: Dysphagia Committee Cochair, Patient Family Education Committee   
  
Member (Hospital-wide and Department), Lactation Task Force Member, and Lead Trainer (Instrumental Assessment, Feeding/ Swallowing, and Tracheostomy and Mechanical Ventilation)   
  
PRESENTATIONS   
Children with Spinal Cord Injury: A Complex Road to Management of Voice and Swallow Function (November 9, 2017). American Speech-Language-Hearing Association (ASHA) Annual Convention. Los Angeles, CA   
Deconstructing Inpatient Pediatric Dysphagia: Comparing Acute Care and Intensive Feeding Program Models (November 10, 2017). American Speech-Language-Hearing Association (ASHA) Annual Convention. Los Angeles, CA   
Infant Swallowing Dysfunction and Feeding: It’s a lot to Digest (August 28, 2017). Gateway to Reaching Optimal Weight through Healthy Feeding (GROW) Symposium. Los Angeles, CA.   
Swallow Safety and Voice with SCI: The Pediatric Speech Pathologist’s Role (April 26-29). American Spinal Injury Association (ASIA) 2017 Annual Scientific Meeting. Albuquerque, New Mexico   
Tales of Children After Tracheotomy: Understanding the Breathing-Swallowing Dyad (November 18, 2016). American Speech-Language-Hearing Association (ASHA) Annual Convention. Philadelphia, PA   
Aerodigestive and Developmental Benefits of Passy-Muir Valve Use (October 20, 2016). Invited speaker PCS Grand Round. Los Angeles, CA   
Communication Vulnerability: Chronicle of Lost Voices, Misinterpretations, and Blurred Exchanges (April 28, 2016). Anaheim, CA   
One Way Valve Use in Pediatrics: Developmental and Clinical Implications in Speech and Swallow Intervention (April 28, 2016). Anaheim, CA   
The Team Approach to Evaluation and Management of the Tracheostomized and Mechanically Ventilated Patient (September 25, 2015). Los Angeles, CA   
The Team Approach to Evaluation and Management of the Tracheostomized and Mechanically Ventilated Patient (August 29, 2015). Oakland, CA   
CSHA Annual Convention, Long Beach, CA., (March 15, 2015). Children with Trach, Dysphagia, and a One Way Valve: It’s a lot to Digest.   
Passy-Muir Speaking Valve: Awakening a Child’s Upper Airway to Unleash Speech and Swallow Potential (November 20, 2014). American Speech-Language-Hearing Association (ASHA) Annual Convention. Orlando, FL.   
15th Annual Pediatric Nursing Conference "Touching the Future of Children", Hershey, PA, (October 28, 2014). Passy-Muir Speaking Valve: Awakening a Child’s Upper Airway to Unleash Speech and Swallow Potential. Penn State Hershey Children's Hospital.   
ANCC National Magnet Conference, Dallas, TX, (October 8-10, 2014). Cost Effective Inter-professional Patient Family Education Innovations that Improve Care Outcomes.   
ArSHA Annual Convention, Tuscan, AZ, (April 11, 2014). Pediatric Communication and Dysphagia Management using the Passy-Muir Valve.   
  
CSHA Annual Convention Oral Presentation, San Francisco, CA, (March 28, 2014). Optimizing Pediatric Communication and Dysphagia Management using the Passy-Muir Valve.   
CSHA Annual Convention Poster, San Francisco, CA, (March 28, 2014). Passy-Muir Speaking Valve Use with Chronically Ventilated Children.   
Passy-Muir Special Event Webinar (December 12, 2013). Declined Candidacy or Patient Refusal: Tales of Tribulations and Success.   
  
Children’s Hospital Los Angeles, Los Angeles, CA (November 12, 2013). Pediatric Dysphagia: Critical Thinking Related to Instrumental Assessment. Weingart Auditorium.   
The 18th Annual Saban Research Institute 18th Annual Poster Session, Anita S. Watson Courtyard, The Saban Research Institute of Children's Hospital Los Angeles (6/3/13). Passy-Muir Speaking Valve Use with Chronically Ventilated Children.   
The Patient Care Service Research Day, Los Angeles, CA (4/30/13). Passy-Muir Speaking Valve Use with Chronically Ventilated Children.   
  
Navy Medical Center, San Diego, CA (11/30/12). Dysphagia Grand Rounds.   
  
American-Speech-Language-Hearing Association Annual Convention, Atlanta, GA (11/17/12). PMV: Keeping it on and therapeutic steps to follow.   
  
2012 Division of Pediatric Rehabilitation Medicine Research Fair Poster Presentation, Los Angeles, CA (9/19/12). Two Poster Presentations: Communication Vulnerability and Comparison of SIMV+PS and AC modes in chronically ventilated children.   
  
Children’s Hospital Los Angeles, Los Angeles, CA (August 20, 2012). G.R.O.W. Gateway for Reaching Optimal Weight through Healthy Feeding. Feeding/Swallowing Challenges: Insight from Speech-Language Pathology and Child Life Specialist. Katy Peck, M.A., CCC-SLP, CBIS, CLE and Carol Kim, M.S., CCLS   
  
National Breastfeeding Awareness Week, Los Angeles, CA (8/6/12). Two Poster Presentations: Skin-to-Skin and Breastfeeding Across the World.   
  
Passy-Muir Special Event Webinar (May 21, 2012). PMV: Keeping it on and therapeutic steps to follow.   
  
Children’s Hospital Los Angeles, Los Angeles, CA (May 14, 2012). Passy-Muir Valve: Multidisciplinary Implementation.   
  
Rady Children’s Hospital, San Diego, CA (April 11, 2012). Passy-Muir Valve: Pediatric Implementation.   
  
PUBLICATIONS   
  
Peck, K and Loffredo, K., Augmentative and Alternative Communication Needs and Patient Family Education in Marshall, L (2016) Mastering Patient and Family Education: A Handbook for Success. Sigma Theta Tau International, Indianapolis, IN., 235-264.   
Goff, S, Peck, K, and Gorry, S., Interprofessional Education Strategies in Marshall, L (2016) Mastering Patient and Family Education: A Handbook for Success. Sigma Theta Tau International, Indianapolis, IN., 81-103.   
Peck, K. and Rappaport, K. (2013). Altered Consistencies of Liquid in the Treatment of Children with Dysphagia. Infant Child & Adolescent Nutrition (ICAN), 5(4), 215-220.   
  
Children with Trachs: Facilitating Speech and Swallowing (December, 2010). Advance Magazine for Speech-Language Pathologists and Audiologists [Vol. 20, Issue 25, Pg. 5].   
  
Assessment of Ventilation, Comfort, and Speech while using Different Ventilator Modes and/or a Passy-Muir Speaking Valve in Children Requiring Home Mechanical Ventilation (Sohn E, Peck K, Keens TG, and Davidson-Ward SL). Investigator in an Institutional Review Board (IRB) approved study with manuscript in the pre-submission stage of publication.   
  
AWARDS/NOMINATIONS   
  
Karen Livingston Research Award for Rehabilitation, recipient of the award for a poster submission entitled, Passy-Muir Speaking Valve Use with Chronically Ventilated Children (November 11, 2013).   
  
Nominated for the Morris and Mary Press Humanism Award, Children’s Hospital Los Angeles (March 2012).   
  
PROFESSIONAL ORGANIZATIONAL AFFILIATION/ROLES   
  
Mentor for candidates seeking Board Certified Swallowing Specialist (BCS-S) Certification, nominated position: Active role 2013-present.   
  
ASHA Program Planning Committee (nominated position) for the annual convention 2014. Swallow and Swallowing Disorders Division (SIG 13) responsible for review of submissions. Designated invited speakers for the conference and participated in group planning meetings.   
  
California Speech and Hearing Association (CSHA): District 8 Program Planning Committee. Responsible for CEU planning and convention content selection for the 2015 annual convention.   
  
Gabriel House (Ensenada, Mexico): Volunteered in collaboration with USC and the Pasadena Rotary Club to provide communication supports, education to house staff and therapists, and dysphagia assessment for high risk children and young adults in Mexico (January 2-4,2015).

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**β2-adrenoreceptor-mediated mitochondrial biogenesis for the treatment of spinal cord injury**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Natalie Scholpa, PhD***  
University of Arizona

**CV:**  
Name: Natalie E. Scholpa, PhD   
Position: Postdoctoral Scholar, Department of Pharmacology and Toxicology, University of Arizona   
A. Personal Statement   
My research interests are centered on the mechanisms and potential treatment of central nervous system diseases. My training has provided me with a wealth of experience with many techniques, ranging from molecular biology to behavioral assays. As a predoctoral student in the laboratory of Dr. Brian Cummings, my research targeted the effect of epigenetic regulation of the cyclin-dependent kinase inhibitor p21 following various stimuli, including cocaine. During this period, I became skilled in both in vitro and in vivo techniques, garnering me multiple first-author publications, as wells as several scientific merit and presentation awards. For my postdoctoral career, I am continuing to build upon the neuroscience background I gained during my graduate school training in order to assess the therapeutic efficacy of novel mitochondrial biogenic compounds on chronic neuropathologies, namely spinal cord injury. My postdoctoral advisor Dr. Rick G. Schnellmann is an expert in mitochondrial biology research with a strong record for training successful postdoctoral fellows. Less than 1 year into my postdoctoral career with Dr. Schnellmann at the Medical University of South Carolina, he attained the position of Dean of Pharmacy at the University of Arizona, resulting in my relocation to Tucson, AZ. With his mentoring and knowledge, in addition to the immense University of Arizona resources and consultation with renowned experts in the spinal cord injury field, my proposed research could greatly benefit the scientific community through enhanced therapeutic intervention for the treatment of spinal cord injury via pharmacological activation of mitochondrial biogenesis.   
  
B. Positions and Honors   
Employment and Experience   
2009 Undergraduate Researcher, Fahrni Research Lab, Department of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, GA   
2010-2011 Undergraduate Researcher, Hertzog Adult Cognition Lab, Department of Psychology, Georgia Institute of Technology, Atlanta, GA   
2011-2015 Graduate Research, Department of Pharmaceutical and Biomedical Sciences, Interdisciplinary Toxicology Program, University of Georgia, Athens, GA   
2012-2013 Communications Coordinator, University of Georgia Student Toxicology Society, Athens, GA   
2013-2014 President, University of Georgia Student Toxicology Society, Athens, GA   
2014 Emerging Leader, University of Georgia, Athens, GA   
2015-Present Postdoctoral Fellow, Drug Discovery and Biomedical Sciences, Medical University of South Carolina, Charleston, SC – moved to Department of Pharmacology and Toxicology, University of Arizona, Tucson, AZ, PI: Rick G. Schnellmann, PhD   
  
Professional Memberships   
2011-2014 American Chemical Society   
2011-2015 American Association of Pharmaceutical Scientists   
2011-2016 Southeastern Society of Toxicology   
2012-Present Society of Toxicology   
2014-Present American Society of Pharmacology and Experimental Therapeutics   
2014-Present Society for Experimental Biology and Medicine   
2016-Present Society for Neuroscience   
  
Awards and Honors   
2011 Georgia Institute of Technology Honors Graduate   
2011 University of Georgia Bridge Award Winner   
2011 Alfred P. Sloan Scholar   
2012 3rd Place Poster Award, University of Georgia Interdisciplinary Toxicology Program (ITP) Spring Retreat   
2012 3rd Place Platform Presentation, Southeastern Society of Toxicology (SESOT) Conference   
2013 2nd Place Poster Award, University of Georgia ITP Spring Retreat   
2013 2nd Place Poster Award, SESOT Conference   
2014 2nd Place Platform Presentation, University of Georgia ITP Spring Retreat   
2014 Award of Best Poster Presentation, Southeast Neuroscience Conference   
2014 1st Place Platform Presentation, SESOT Conference   
2014 University of Georgia Graduate School Emerging Leader   
2014 Achievement Rewards for College Scientists Foundation Award   
2015 Society of Toxicology Graduate Student Travel Award   
2015 Society for Experimental Biology and Medicine Young Investigator Award   
2015 1st Place Poster Award, University of ITP Spring Retreat   
2015 University of Georgia Graduate School Dissertation Completion Award   
2017 American Society of Pharmacology and Experimental Therapeutics (ASPET) Underrepresented Postdoctoral Scientist Travel Award, Experimental Biology (EB) Conference   
2017 3rd Place ASPET Division for Neuropharmacology Postdoctoral Scientist Award, EB Conference   
2017 2nd Place Dolores C. Shockley Best Presentation Award, EB Conference   
  
C. Contributions to Science   
1. Early Graduate Career: My early graduate research utilized in vitro analyses to investigate the epigenetic effects of the water-disinfection byproduct bromate in renal cells. Results from these studies were pertinent because they indicated that renal cell death induced by an environmentally relevant sub-chronic low-dose exposure to bromate may be epigenetically mediated. Additionally, this bromate treatment was found to biphasically alter the DNA methylation status of the cyclin-dependent kinase inhibitor p21. A subsequent publication assessed the anti-neoplastic activity and nephrotoxicity of epigenetic inhibitors both alone and in combination with known chemotherapeutics, and, interestingly, found that the renal toxicity of said inhibitors was dependent upon the stage of cell growth. Findings from these studies were published and presented at multiple national and international conferences.   
a. Epigenetic Changes in p21 Expression in Rat Kidney after Exposure to Bromate. Poster presentation at the 52nd annual Society of Toxicology conference in San Francisco, CA in March 2012.   
b. Nephrotoxicity of Epigenetic Inhibitors Used for the Treatment of Cancer. Poster presentation at the 53rd annual Society of Toxicology conference in San Antonio, TX in March 2013.   
c. Nephrotoxic Effects of Epigenetic Inhibitors Used for Cancer Treatment. Poster presentation at the biannual Cellular and Molecular Mechanisms of Toxicity Gordon Research conference in Andover, NH in August 2013.   
d. Epigenetic Changes in p21 Expression in Renal Cells after Exposure to Bromate. Poster presentation at the 54th annual Society of Toxicology conference in Phoenix, AZ in March 2014. Scholpa N.E., Zhang X., Kolli R.T. and Cummings B.S. (2014) Epigenetic Changes in p21 Expression in Renal Cells after Exposure to Bromate. Toxicological Sciences 141(2) 432-440   
e. Scholpa N.E., Kolli R.T., Moore M., Arnold R.D. and Cummings B.S. (2015) Nephrotoxicity of Epigenetic Inhibitors Used for the Treatment of Cancer. Chemico-Biological Interactions 258 21-29   
2. Late Graduate Career: The remainder of my graduate career contributions focused on the effect of cocaine-induced epigenetic alterations in p21 on addictive behavior in vivo. Results from these studies were highly relevant as they provided new insight into a previously unreported role for p21 in modulating responses to cocaine and in motivated behaviors. Mice lacking functional p21 were found to have an altered blood lipidome, increased neurogenesis, enhanced cognitive ability and a decreased locomotor response to cocaine. Additionally, these studies indicated that cocaine exposure alters histone acetylation of the p21 promotor exclusively in the ventral sector of the hippocampus, resulting in increased expression. Data from these studies were presented at several conferences and published in 2016.   
a. Role of p21 in Cocaine-Induced Response in vivo. Poster presentation at the 55th annual Society of Toxicology conference in San Diego, CA in March 2015.   
b. Effect of Cocaine and p21 on the Blood Lipidome. Poster presentation at the annual Experimental Biology conference in Boston, MA in April 2015.   
c. Role of Hippocampal p21 in Reward-Induced Behaviors. Poster presentation at the annual Experimental Biology conference in Boston, MA in April 2015.   
d. Scholpa N.E., Hammond S., Wagner J.J. and Cummings B.S. (2016) Role of cyclin-dependent kinase inhibitor 1a (p21) in cocaine-induced behavior. The Journal of Pharmacology and Experimental Therapeutics 357(1) 56-65   
3. Postdoctoral Career: Scientific contributions during my postdoctoral career have revolved around the therapeutic assessment of pharmacological activation of mitochondrial biogenesis for the treatment of various neuropathologies. The findings from these studies have the potential to revolutionize therapeutic treatment of these chronic diseases. Thus far, I have found that mitochondrial biogenic agents targeting various GPCRs, including some FDA-approved compounds, enhance recovery of both spinal cord injury and Parkinson’s disease.   
a. Mitochondrial Biogenesis as a Novel Therapeutic Strategy for Spinal Cord Injury. Poster presentation at the annual Society for Neuroscience conference in San Diego, CA in November 2016.   
b. Scholpa N.E., Lynn M.K., Corum D., Boger H.A. and Schnellmann R.G. 5-HT1F-Induced Mitochondrial Biogenesis for the Treatment of Parkinson’s disease. Submitted to British Journal of Pharmacology April 2017. Revisions requested.   
c. Enhanced Mitochondrial Biogenesis for the Treatment of Spinal Cord Injury. Oral and poster presentation at the annual Experimental Biology conference in Chicago, IL in April 2017.   
d. 5-HT1F Receptor-Mediated Mitochondrial Biogenesis for the Treatment of Parkinson’s Disease. Poster presentation at the FASEB Mitochondrial Biogenesis and Dynamics in Health, Disease and Aging conference in West Palm Beach, FL in May 2017.   
e. Scholpa N.E. and Schnellmann R.G. Mitochondrial-Based Therapeutics for the Treatment of Spinal Cord Injury: Mitochondrial Biogenesis as a Potential Pharmacological Target. Accepted to The Journal of Pharmacology and Experimental Therapeutics September 2017.   
f. Gibbs W.S., Scholpa N.E., Beeson C.C. and Schnellmann R.G. Pharmacological Activation of Mitochondrial Biogenesis for the Treatment of Various Pathologies. To be published in Drug-Induced Mitochondrial Toxicity – Continuing Insight Yields Progress towards the Clinic in 2017.   
  
D. Additional Information   
Scholastic Performance   
Georgia Institute of Technology   
YEAR COURSE TITLE GRADE   
2007 Inorganic Chemistry A   
2007 Inorganic Chemistry Lab A   
2008 Biological Principles B   
2008 Quantitative Analysis B   
2008 Organic Chemistry I B   
2008 Organic Chemistry II B   
2008 Synthesis Lab B   
2009 Organic Chemistry Lab B   
2009 Genetics B   
2009 Undergraduate Research A   
2010 Biochemistry I B   
2010 Biochemistry II B   
2010 Biophysical Chemistry B   
2010 Biochemistry Lab I A   
2011 Analytical Chemistry A   
2011 Biochemistry Lab II A   
2011 Chemistry Seminar A   
GPA: High Honors Graduate 3.37   
  
University of Georgia   
YEAR COURSE TITLE GRADE   
2011 Advanced Biochemistry/Molecular Biology B+   
2011 Introductory Toxicology B+   
2011 Pharmaceutical and Biomedical Sciences Seminar (Fall) S   
2012 Chemical Toxicology A-   
2012 Pharmaceutical and Biomedical Sciences Seminar (Spring) S   
2012 Biostatistics A   
2012 Molecular Toxicology A   
2012 Pathophysiology A-   
2012 Pharmaceutical and Biomedical Sciences Seminar (Fall) A   
2013 Organ Systems Toxicology A-   
2013 Pharmaceutical and Biomedical Sciences Seminar (Spring) S   
2013 Neurophysiology A   
2013 Pharmaceutical and Biomedical Sciences Seminar (Fall) A   
2014 Pharmaceutical and Biomedical Sciences Seminar (Spring) S   
2014 Pharmaceutical and Biomedical Sciences Seminar (Fall) A   
2015 Pharmaceutical and Biomedical Sciences Seminar (Spring) A   
2015 Neuroanatomy Audited   
GPA: 3.76

***Aarti Narang, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

***Wenxue Wang,***   
Medical University of South Carolina

*(no CV uploaded)*

***Daniel Corum,***   
Medical University of South Carolina

*(no CV uploaded)*

***Stephen Tomlinson,***   
Medical University of South Carolina

*(no CV uploaded)*

***Rick Schnellmann,***   
University of Arizona

*(no CV uploaded)*

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**Placental Mesenchymal Stromal Cells Improve Forelimb Motor Function in a Rodent Cervical Spinal Cord Contusion Model**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Melissa Vanover, MD***  
University of California, Davis

**CV:**  
Melissa Vanover, MD   
  
CURRENT POSITION   
  
University of California, Davis 2013-present   
Department of Surgery   
General Surgery Resident   
  
Surgical Bioengineering Laboratory 2016-present   
Research Fellow   
  
Shriners Hospital for Children Northern California 2016-present   
Rapid Response Physician   
Rapid Response Team Leader   
  
EDUCATION   
  
University of Texas Health Science Center at San Antonio 2009-2013   
School of Medicine   
Doctorate of Medicine   
  
Indiana University/Purdue University Indianapolis 2007-2009   
Post-Baccalaureate   
  
The School of the Art Institute of Chicago 2002-2005   
Bachelor of Fine Arts   
Emphasis in Sculpture and Scientific Illustration   
  
COMMITTEES & MEMBERSHIPS   
  
University of California Davis   
Patient Safety Events Committee 2016-present   
Pre-procedure Checklist Taskforce 2016-present   
Pre-operative History & Physical Taskforce 2016   
Pain Management Workgroup 2017-present   
Order Set Optimization Workgroup 2017-present   
After Hospital Summary Workgroup 2017-present   
Resident Medical Staff Committee Quality Improvement 2017-present   
School of Medicine Surgery Interest Group Advisor 2017-present   
  
Alpha Omega Alpha Honor Medical Society 2013-present   
American College of Surgeons 2012-present   
Association of Women Surgeons 2016-present   
  
PUBLICATIONS   
  
Vanover M, Wang A, Farmer D. Potential clinical applications of placental stem cells for use in fetal therapy of birth defects. Placenta. 2017 May 18. pii: S0143-4004(17)30276-X. doi: 10.1016/j.placenta.2017.05.010. [Epub ahead of print].   
  
Kabagambe SK, Chen YJ, Vanover MA, Saadai P, Farmer DL. New directions in   
fetal surgery for myelomeningocele. Childs Nerv Syst. 2017 Jul;33(7):1185-1190.   
doi: 10.1007/s00381-017-3438-6. Epub 2017 May 11.   
Chen YJ, Chung K, Pivetti C, Lankford L, Kabagambe S, Vanover M, Becker J, Lee C, Tsang J, Wang A, Farmer D. Fetal Surgical Repair with Placenta-derived Mesenchymal Stromal Cell Engineered Patch Limits Spinal Cord Damage in Rodent Model of Myelomeningocele. J Ped Surg. July 2017, manuscript accepted.   
Kabagambe S, Keller B, Becker J, Goodman L, Pivetti C, Lankford L, Chung K, Lee C, Chen YJ, Kumar P, Vanover M, Wang A, Farmer D. Placental Mesenchymal Stromal Cells Seeded on Clinical Grade Extracellular Matrix Improve Ambulation in Ovine Myelomeningocele. J Ped Surg. July 2017, manuscript accepted.   
Vanover M. Fata Morgana. Lifelines: A Literary & Art Journal from the Geisel School of Medicine at Dartmouth. 5:46; 2012.   
  
Vanover M. Palpation. Connective Tissue: UTHSCSA’s Art & Literature Journal. 4: 12; 2011.   
  
PRESENTATIONS   
  
Vanover M, Stark R, Hirose S, Stephenson J. Two Rare Presentations of Extralobar Pulmonary Sequestration. Pacific Association of Pediatric Surgeons, 50th Annual Scientific Meeting. Seattle, WA. May 2017.   
  
Vanover M, Stephenson J, Hirose S. The High Cost of Pediatric Falls from Buildings. University of California Davis, Resident Research Day. April 2017.   
  
Vanover M, Hirose S, Farmer D, Saadai P. Development of a Clinical Practice Guideline for Post-Operative Management of Appendicitis in Children. University of California Davis, Quality Improvement Forum. March 2017.   
  
AWARDS & HONORS   
  
General Medical Education High Value Competition, UC Davis (2016)   
James E Pridgen, MD Endowed Presidential Scholarship, UTHSCSA (2013)   
ACS Medical Student Program, UTHSCSA (2012)   
MSP Scholarship, UTHSCSA (2011, 2012)   
Faculty Club Scholarship, IUPUI (2008)   
Bepko Learning Center Mentor Scholarship, IUPUI (2007-2009)

***Christopher Pivetti, MS***  
University of California, Davis

*(no CV uploaded)*

***Priyadarsini Kumar, PhD***  
University of California, Davis

*(no CV uploaded)*

***Karen Chung, BS***  
University of California, Davis

*(no CV uploaded)*

***Laura Galganski, MD***  
University of California, Davis

*(no CV uploaded)*

***Diana Farmer, MD***  
University of California, Davis

*(no CV uploaded)*

***Aijun Wang, PhD***  
University of California, Davis

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**64**

**Applications for 2D and 3D configurations of hybrid OPF+ scaffolds to investigate neuroregeneration in vitro and in vivo following spinal cord injury**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Ahad Siddiqui, PhD***  
Mayo Clinic

**CV:**  
Dr. Ahad M. Siddiqui   
  
  
Education   
  
Doctor of Philosophy (Ph.D.) - 2009 - 2013   
• McMaster University (Hamilton, Ontario)   
• McMaster Integrated Neuroscience Discovery & Study (MiNDS; Graduate Neuroscience Program)   
  
Honours Bachelor of Science (H.B.Sc.) - 2005 - 2009   
• University of Toronto (Mississauga, Ontario)   
• Double major in Biology and Psychology   
  
Research Experience   
  
The Regenerative Neurobiology Laboratory: Dr. Windebank (Neurology, Mayo Clinic) - 2017-Present   
• Post-Doctoral Research Fellow   
• Skills used in this lab include cell culture, genetic modification, survival surgery, biomaterial fabrication, histology, cell and scaffold transplantations.   
  
The Fehlings’ Laboratory for Neural Repair and Regeneration (Krembil Research Institute, University Health Network - 2013 – 2016   
• Post-Doctoral Research Fellow   
• project entitled: The effect of genetically modified neural precursor cells on recovery after spinal cord injury (Ontario Institute of Regenerative Medicine Disease Team Grant)   
• Previous project entitled: Intravenous Infusion of Human Umbilical Cord Matrix Cells to Treat Spinal Cord Injury (Stem Cell Network Clinical Translation Impact Grant)   
• Skills used in this lab included cell culture, survival surgery, molecular biology techniques (i.e. western blot, slot blot, ELISA panel), biochemical analysis (i.e. enzyme activity, protein quantification), genetic techniques (plasmid purification, transfection), and immunohistochemistry   
  
Dr. Alexander Ball’s Lab (McMaster University) - 2010 - 2013   
• Doctoral Project entitled: The Role of Microglial Activation States in the Survival of RGCs after Injury.   
• The specific aims of this project are to explore the effect of exogenously injected microglial cells in different activation states on the survival of retinal ganglion cells   
• Skills used in the lab include use of cell cultures, survival surgery on rats, intravitreal and tail vein injections, immunohistochemistry, fixing tissue, transfections, and making plasmids   
  
Dr. Alexander Ball’s Lab (McMaster University) - 2009 - 2010   
• Master's Project entitled: Dependence of Target Derived Growth Factors and Retinal Ganglion Cell Survival on Optineurin   
• The specific aims of this project are to explore the link between optineurin, brain-derived neurotrophic factor signalling, and retinal ganglion cell survival   
  
Honours and Awards   
  
Morton Cure Paralysis Fund Fellowship Grant - 2016   
• Amount: $40 000 USD   
  
International Symposium on Neural Regeneration Travel Award - 2015   
• Amount: $500 USD   
  
Faculty of Health Sciences Graduate Program Excellence Award (McMaster University) - 2013   
  
McMaster University Research Scholarship - 2010-2013   
• Amount: $15 000 CAD per year   
  
McMaster University Graduate Scholarship - 2009-2013   
• Amount: $5000 CAD per year   
  
McMaster University Research Scholarship - 2009-2010   
• Amount: $10 000 CAD   
  
Teaching   
  
Teaching Assistant (Graduate Neuroscience; McMaster University) - 2011 - 2013   
• Course: Neuro700 - The Nervous System   
o Established the curriculum and syllabus   
o Created assignments and deadlines   
o Helped the graduate students develop presentation skills through seminars preparations   
o Helped lead and organize seminar classes   
o Evaluated essays and presentations   
  
Teaching Assistant (Life Science, McMaster University) - 2010 - 2011   
• Courses: LifeSci 3B03 – Neurobiological Mechanisms of Behaviour (2011)   
LifeSci 2C03 – Neural Communication and Information Processing (2010)   
o Marked papers, tests, and seminars   
o Led test/exam review session   
o Consulted students during office hours and by email   
o Helped design assignments   
Lectures   
  
Neuro700 Invited Guest Lecturer (Graduate Neuroscience; McMaster University) - 2013   
• Audience: first year graduate students   
• Topic: CNS Regeneration and Factors that Determine Neuronal Survival   
  
Committees   
  
Training Affairs Committee (Krembil Research Institute) - 2015 – 2016   
• Post-Doctoral Fellow Representative   
  
StemCellTalks (6th and 7th Annual Symposium; Let’s Talk Science University of Toronto) - 2015 - 2016   
• Breakout Session Leader   
  
MiNDS Student Advisory Committee (McMaster University) - 2012 – 2013   
• Co-founder and Elections Representative   
  
Students of MiNDS Association (McMaster University) - 2012 - 2014   
• Co-founder and President   
  
Mentoring Activities   
  
Post-Doctoral Fellow (Krembil Research Institute) - 2013 – 2016   
• Number of Mentorees: 9   
• I was involved in the training of the student in common lab protocols (such as cryosectioning, embedding, etc.). I also helped them write proposals for their projects and helped in troubleshooting of experiments.   
  
Graduate Student (McMaster University) - 2009 – 2013   
• Number of Mentorees: 7   
• I have helped supervise 2-4 undergraduate thesis students in my lab every year from different disciplines, such as Health Science, Life Science, Biology, and Engineering. I helped them learn different techniques in the lab required for them to do their project and helped them develop their ideas. I had an active role in helping them with their projects and being knowledgeable about their topic. Often I would come up with ideas to help them improve their experiments.   
  
Publications   
  
Khazaei M\*, Ahuja CS\*, Siddiqui AM\*, Fehlings MG. (2017). Transplantation of human induced pluripotent stem cell-derived neural precursor cells for treatment of spinal cord injury. Gene Thearpy in Neurological Disorders. (Submitted). \* co first-author/equal contribution   
  
Siddiqui AM, Ahuja CS, Tator CH, Fehlings MG. (2017). Chapter 3: Spinal cord protective and regenerative strategies. Neurotrauma Critical Care: Spine, 2nd edition. (Submitted)   
  
Siddiqui AM, Sabljic TF, Ball AK. (2017). The effect of allografted or systemically infused microglia on survival of retinal ganglion cells after optic nerve injury. Experimental Eye Research. (Submitted)   
  
Badner A, Siddiqui AM, Fehlings MG. (2017). Spinal cord injuries: how could stem cells help? Expert Opinion on Biological Therapy. 17(5): 529-541.   
  
Uldreaj A, Tzekou A, Mothe AJ, Siddiqui AM, Dragas R, Tator CH, Torlakovic EE, Fehlings MG. (2016). Characteriation of the immunological response after cervical spinal cord injury. Journal of Neurotrauma.34(6):1209-1226.   
  
Hong CJH, Siddiqui AM, Sabljic, TF Ball, AK (2015). Changes in parvalbumin immunoreactive retinal ganglion cells and amacrine cells after optic nerve injury. Experimental Eye Research. 145:363-372.   
  
Siddiqui AM, Khazaei M, Fehlings MG (2015). Chapter 2 - Translating mechanisms of neuroprotection, regeneration, and repair to treatment of spinal cord injury. Progress in Brain Research. Sensorimotor Rehabilitation – At the Crossroads of Basic and Clinical Sciences. Elsevier. 218:15–54.   
  
Khazaei M, Siddiqui AM, Fehlings MG (2014). Treatment of spinal cord injury with iPS derived cells: preliminary evidence and future perspectives. Journal of Clinical Medicine 4:37-65.   
  
Siddiqui AM, Sabljic TF, Koeberle PD, Ball AK (2014). Downregulation of BM88 after optic nerve injury. Investigative ophthalmology & visual science 55:1919–1929.   
  
Conference Presentations   
  
Dragas R, Siddiqui AM, Hong J, Chamankhah M, & Fehlings MG (2016). Combinatory treatment with hepatocyte growth factor and neural progenitor cells reduces astrogliosis and pro-inflammatory microglial activation in vitro. Society for Neuroscience Conference. (International; poster session).   
  
Dragas R, Siddiqui AM, Hong J, Chamankhah M, & Fehlings MG (2016). Combinatory treatment with hepatocyte growth factor and neural progenitor cells reduces astrogliosis and pro-inflammatory microglial activation in vitro. Institute of Medical Science Scientific Day. (Institutional; poster session).   
  
Dragas R, Siddiqui AM, Hong J, Chamankhah M, & Fehlings MG (2016). Combinatory treatment with hepatocyte growth factor and neural progenitor cells reduces astrogliosis and pro-inflammatory microglial activation in vitro. Collaborative Program in Neuroscience Research Day. (Institutional; poster session).   
  
Dragas R, Siddiqui AM, Hong J, Chamankhah M, & Fehlings MG (2016). Combinatory treatment with hepatocyte growth factor and neural progenitor cells reduces astrogliosis and pro-inflammatory microglial activation in vitro. Krembil Research Day. (Institutional; poster session).   
  
Siddiqui AM, Hong JYL, Chamankhah M, Wang J, Lui Y, Badner A, Dragas R, Forner S, and Vawda R, & Fehlings MG (2015). Level Dependent Differences in Secondary Injury Following Spinal Cord Injury. International Symposium on Neural Regeneration. (International; Poster session).   
  
Dragas R, Siddiqui AM, Khazaei M, Chamakhah M, Fehlings M (2015). Reduced Astrogliosis and Modulation of Pro-Inflammatory Microglia by Combinatorial Treatment with Hepatocyte Growth Factor and Neural Progenitor Cells in Vitro. International Symposium on Neural Regeneration. (International; Poster session).   
  
Hong, JYL, Lui, Y, Wang, J, Chamankhah, M, Badner, A, Forner, S, Siddiqui, AM, Dragas, R, and Vawda, R, & Fehlings, MG (2015). Level-Specific Optimization of Therapeutic Interventions After Spinal Cord Injury-A New Paradigm. National Neurotrauma Society Conference. (International; Poster session).   
  
Hong, JYL, Lui, Y, Wang, J, Chamankhah, M, Badner, A, Forner, S, Siddiqui, AM, Dragas, R, and Vawda, R, & Fehlings, MG (2015). Timing of cell therapy for spinal cord injury should be level dependent: Evidence for temporal differences in inflammation. International Society for Stem Cell Research Conference. (International; Poster session).   
  
Hong, JYL, Lui, Y, Wang, J, Chamankhah, M, Badner, A, Forner, S, Siddiqui, AM, Dragas, R, and Vawda, R, & Fehlings, MG (2015). Level-Specific Optimization of Therapeutic Interventions After Spinal Cord Injury-A New Paradigm. Toronto Western Research Institute Research Day. (Institutional; Poster session)   
  
Hong, JYL, Lui, Y, Wang, J, Chamankhah, M, Badner, A, Forner, S, Siddiqui, AM, Dragas, R, and Vawda, R, & Fehlings, MG (2015). Level-Specific Optimization of Therapeutic Interventions After Spinal Cord Injury-A New Paradigm. Institute of Medical Science Research Day. (Institutional; Poster session)   
  
Hong, JYL, Lui, Y, Wang, J, Chamankhah, M, Badner, A, Forner, S, Siddiqui, AM, Dragas, R, and Vawda, R, & Fehlings, MG (2015) . Level-Specific Optimization of Therapeutic Interventions After Spinal Cord Injury-A New Paradigm. Gallie Day. (Institutional; Poster session)   
  
Siddiqui AM, Sabljic TF, & Ball AK. (2013). Activation State of Microglia Determines Neuronal Survival after Injury. 7th Annual Canadian Association of Neuroscience Meeting. (National Conference; Poster session; Ph.D. work)   
  
Solow ML, Siddiqui AM, & Ball AK. (2013). Subpopulations of Retinal Ganglion Cell Mitochondria revealed by BM88 and COX IV Immunostaining. Life Sciences Interdisciplinary Research Symposium. (Institutional; Poster session)   
  
Siddiqui AM, Sabljic TF, & Ball AK. (2012). Down Regulation of BM88 after Optic Nerve Crush. Invest. Ophthal. Vis. Sci., 53(ARVO E-Abstract 6577/A215). (International Conference; Poster session; Ph.D. work)   
  
Siddiqui AM, Sabljic TF, & Ball AK. (2011). Injection of Cultured Microglial (HAPI) Cells into Rats with Optic Nerve Injury Exacerbated Retinal Ganglion Cell Death. McMaster MiNDS Symposium – Optimal Brain. (Institutional; Poster session; Ph.D. work)   
  
Siddiqui AM, Sabljic TF, & Ball AK. (2011). Migration of HAPI Microglial Cells to the Retina and Optic Nerve After Injury. Invest. Ophthal. Vis. Sci., 52(ARVO E-Abstract 1005/A377). (International Conference; Poster session; Ph.D. work)   
  
Post-Publication Peer Review   
  
Fehlings M G: F1000Prime Recommendation of Evaluation [Melief SM et al., Stem Cells 2013, 31(9):1980-91]. In F1000Prime, 03 Feb 2014; DOI: 10.3410/f.718255374.793490250. F1000Prime.com/718255374#eval793490250

***Nick Madigan, MD, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Rosa Brunner,***   
Paracelsus Medical University

*(no CV uploaded)*

***Xifeng Liu, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Jean Schwarzbauer, PhD***  
Princeton University

*(no CV uploaded)*

***Gregory Harris, PhD***  
Princeton University

*(no CV uploaded)*

***Jeffrey Schwartz, PhD***  
Princeton University

*(no CV uploaded)*

***Lichun Lu, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Michael Yaszemski, MD, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Anthony Windebank, MD***  
Mayo Clinic

*(no CV uploaded)*

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**The use of embedded optical fibers to assess the transient compression distribution at key locations of an instrumented spinal cord surrogate**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Yann Facchinello, PhD***  
Research Center, Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Eric Wagnac, PhD***  
École De Technologie Supérieure

*(no CV uploaded)*

***Bora Ung, PhD***  
École De Technologie Supérieure

*(no CV uploaded)*

***Yvan Petit, PhD***  
École De Technologie Supérieure

*(no CV uploaded)*

***Prabin Pradhan,***   
École De Technologie Supérieure

*(no CV uploaded)*

***Jean-Marc Mac-Thiong, PhD, MD***  
Research Center, Hôpital Du Sacré-Coeur De Montréal

**CV:**  
RESEARCH AND PROFESSIONAL EXPERIENCE:   
  
Positions and Employment   
  
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada   
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada   
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada   
2010-… Chief Medical Officer, Spinologics Inc., Canada   
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada   
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada   
Other Experience and Professional Memberships   
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association   
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society   
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society   
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation   
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal   
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group   
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)   
2014-… Associate Member, Harms Study Group   
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé   
2012-13 Associate Member, North American Spine Society   
2012-… Member, American Spinal Injury Association   
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis   
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research   
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities   
2008-… Member, Scoliosis Research Society   
  
Honors   
  
2015 Ansys Hall of Fame 2015 Best in Show: Corporate   
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)   
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)   
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research   
2011 Scoliosis Research Society Traveling Fellowship   
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting   
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting   
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society   
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé   
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal   
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal   
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal   
  
Publications   
H-index: 27 i10-Index: 56   
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong   
  
Peer-reviewed publications on spinal cord injury   
  
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J   
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology   
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]   
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)   
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]   
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]   
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]   
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]   
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68   
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33   
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6   
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8   
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23   
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68   
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4   
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47   
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6   
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54   
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22   
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24   
  
Peer-reviewed publications on other spine-related projects (2015-2017)   
  
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]   
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]   
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]   
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94   
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32   
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62   
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796   
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4   
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2   
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8   
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7   
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65   
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11   
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31   
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30   
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35   
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20   
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6   
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7   
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003   
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51   
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43   
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8   
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21   
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1   
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20   
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34   
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64   
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)   
  
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017   
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017   
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.   
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014   
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014   
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014   
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014   
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014   
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

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**Neuroprotective Effects of Spirulina Platensis on The Spinal Cord Following Spinal Cord Injury in Rat Models: Locomotor Activity and Ultrastructural Study**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Dauda Abdullahi, M.Med.Sc (Master of Medical Science)***  
Department of Anatomy, College of Medical Sciences, Abubakar Tafawa Balewa University

**CV:**  
NAME: DAUDA ABDULLAHI   
  
MOBILE PHONE NUMBER: +601126027181 and +2347064882193   
  
E-mail Address: daudageneticist@yahoo.com and daudaneuroscience@siswa.um.edu.my   
  
ACADEMIC QUALIFICATION   
  
BSc. (Hons) Human Anatomy (2nd Class Upper, CGPA of 4.42 out of 5.00), College of Medical Sciences, University of Maiduguri, Nigeria. 2004 – 2008.   
  
M.Med.Sc. (Distinction), Faculty of Medicine, University of Malaya, Malaysia. 2015-2017   
  
Research: Neuroprotective Effects of Spirulina Platensis on The Spinal Cord Following Spinal Cord Injury in Rat Models: Locomotor Activity and Ultrastructural Study   
  
PUBLICATION   
  
  
  
1. Abdullahi, D., Annuar, A. A., Mohamad, M., Aziz, I., & Sanusi, J. (2017). Experimental spinal cord trauma: a review of mechanically induced spinal cord injury in rat models. Reviews in the Neurosciences, 28(1), 15-20.   
2. Ramli, D., Aziz, I., Mohamad, M., Abdulahi, D., & Sanusi, J. (2017). The Changes in Rats with Sciatic Nerve Crush Injury Supplemented with Evening Primrose Oil: Behavioural, Morphologic, and Morphometric Analysis. Evidence-Based Complementary and Alternative Medicine, 2017.   
  
SKILLS   
  
• Animal Spinal Cord and Brain Surgery   
• Electron Microscopic Techniques   
• Immnunofluorescence Techniques   
• Western Blot   
• Animal behavioural Techniques (BBB Scores and Moriza Water Maze)   
• Image J Software Analysis and SPSS Software Analysis   
  
  
WORKING AND TEACHING EXPERIENCE   
  
Post Basic Science Tutor (Neuroanatomy) at the Federal School of Psychiatric Nursing, Federal Neuropsychiatric Hospital, Calabar (1st November 2010 - 15th June, 2012).   
Activities:   
i. Involved in the teaching Neuroanatomy to the student psychiatric nurses; especially the Olfactory & limbic cortex, Functional areas, Diencephalon, Basal nuclei, Reticular Activating System, Sensory receptors and Neuromuscular Junctions.   
ii. Supervision of student Research Project   
  
Graduate Assistant - Usmanu Danfodiyo University Sokoto (June, 2012 – May, 2014).   
  
Activities:   
i. Dissection and supervision of practical Neuroanatomy dissection for the undergraduate medical students. Also involved in the regional gross anatomy dissection for the undergraduate medical (MBBS) students.   
  
ii. Teaching the Pharmacy and Medical Lab. Science students Histology, Embryology and Gross Anatomy.   
  
Academic Staff - Abubakar Tafawa Balewa University Bauchi (Employed February 2014 and assumes duty May, 2014). Now on Fellowship (study leave) in Malaysia.   
  
Activities:   
  
1. Assist the Coordinator of the College in assessing the structures and facilities in Phase I and also suggest any possible improvement or modification.   
2. Assist in providing information and model pictures of necessary standard approved equipment, furniture and fittings in the laboratories.   
3. Developed a model Clinical Anatomy research proposal on Spinal Cord Injury and repair.   
  
Tutor: Department of Anatomy, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia (2016-2017)   
  
Activities: Assist in practical teaching of Gross Anatomy & Histology to the undergraduate medical (MBBS) students.   
  
MEMBERSHIP   
  
  
i. Student Member: American Spinal Cord Injury Association   
  
ii. Member: Malaysian Society of Neuroscience   
  
iii. Member: Microscopy Society of Malaysia   
  
  
CONFERENCES/ WORKSHOP ATTENDED   
  
• First Conjoint International Conference on Fertility, Anatomy and Morphological Sciences, held at Lagos, Nigeria (September, 2007).   
• Management Orientation Workshop for Newly Employed Senior Staff of Federal Neuropsychiatric Hospital Calabar. Delivered by Stetonic Nigeria LTD April, 2011.   
• Intensive Workshop on Medical Education & Methods of Assessment. Organised by Usmanu Danfodiyo University Sokoto & Usmanu Danfodiyo University Teaching Hospital (August, 2013)   
• Animal Experimental Unit Induction Course Session 6/2015 University of Malaya 21st October, 2015   
• Responsible Care and Use of Laboratory Animal Course (Technique on Handling, Oral Gavage, Anaesthesia & Euthanasia, Parenteral Administration & Blood Collection) University of Malaya 18th – 21st January 2016   
• Bioinformatics Analysis of Transcritomics Datasets, University of Malaya, 17th December 2015   
• PrimeFlow RNA Assay Workshop, organized by i-DNA Biotechnology Sdn Bhd held at University of Malaya, 1st-2nd March, 2016.   
• 6th Annual Neuroscience Seminar held at the Universiti Putra Malaysia, 21st-22nd March, 2016.   
• IBRO Global Neuroscience Advocacy Workshop 2016 held at the Universiti Putra Malaysia, 21st March, 2016.   
• Sakura’s Histology Workshop, organized by Matrix Optics (M) Sdn Bhd at the University of Malaya, 5th October, 2016.   
• 25th Scientific Conference Microscopy Society of Malaysia, 7-8th December, 2016. At the Hotel Bangi-Putrajaya, Selangor, Malysia.   
• 21st Biological Sciences graduate Congress 2016. Held on 15-16th December, 2016 at the University of Malaya.   
• 2nd International Anatomical and Biomedical Scientific Conference 2017. Held at Selangor, Malaysia, 1st – 2nd August, 2017.   
• Conjoint Meeting o f 27th Malaysian Society of Neuroscience and 17th Neurosurgical Association of Malaysia during MyNeuro2017 on Reconnecting the Synapses. Held on 11-13th August, 2017 at Hotel Istana, Kuala Lumpur, Malaysia.   
• Malaysian Anatomical Association Symposium 2017. Held at Faculty of Medicine, University Technology Mara, Sg Buloh, Selangor, Malaysia from 29 - 30 September, 2017.   
  
HONOUR AND DISTINCTIONS   
  
• Second Best Presenter Award by the Anatomical Society of Nigeria at the First Conjoint International Conference on Fertility, Anatomy and Morphological Sciences, held at Lagos, Nigeria (2007).   
• On the 20th of March 2008, I received a commendation letter from the Vice Chancellor of the University of Maiduguri for my excellent academic performance.   
• Distinction in M.Med.Sc. (2017)

***Azlina Annuar, Ph.D***  
Department of Biomedical Science, Faculty of Medicine, University of Malaya

**CV:**  
  
ACADEMIC QUALIFICATION   
  
PhD(2004) (UK), IMPERIAL COLLEGE OF SCIENCE,TECHNOLOGY AND MEDICINE   
BSC(1998) (UK), UNIVERSITY COLLEGE, UNIVERSITY OF LONDON, UK   
  
  
PROFESSIONAL   
(Organisation), (Role), (Year), (Level).   
  
Genetics Society, Member, 2008 to 2010, (National)   
NeuroMalaysia, Treasurer, 2009 to 2011, (National)   
Malaysian node of the Human Variome Project, Academic Member, 2013, (National)   
  
  
ADMINISTRATIVE DUTIES   
(Role), (Level), (Start date),(End Date).   
  
Assistant to Coordinator, Department of Biomedical Science, Faculty of Medicine, 30/08/2016 to 31/12/2016 (Assisting Prof Mary Anne in the Faculty Postgraduate studies committee)   
Coordinator, Department of Biomedical Science, Faculty of Medicine, 01/01/2016 to 31/12/2016 (Coordinator for Departmental seminars)   
Committee Member for Departmental Fund, Department of Molecular Medicine, Faculty of Medicine, 02/03/2009 to 30/12/2011   
Co-Coordinator for Monthly Departmental Seminars, Department of Molecular Medicine, Faculty of Medicine, 02/01/2009 to 17/09/2012   
  
  
  
RECENT SELECTED PUBLICATIONS   
(Publication).   
Article in Academic Journals   
  
2016   
  
Abdullahi, D., Annuar, A. A., Mohamad, M., Aziz, I., & Sanusi, J. (2016). Experimental spinal cord trauma: a review of mechanically induced spinal cord injury in rat models. Reviews in the Neurosciences.   
Gopalai AA, Ahmad-Annuar A, Li HH, Zhao Y, Lim SY, Tan AH, Lim TT, Eow GB, Santhi P, Shanthi V, Norlinah MI, Aziz ZA, Lim SK, Tan CT, Tan EK. PARK16 is associated with PD in the Malaysian population. American Journal of Medical Genetics Part B: Neuropsychiatric Genetics 2016;171(6):839 847. (ISI-cited; Impact factor 3.42 in 2016). (ISI-Indexed)   
Tey S, Ahmad-Annuar A, Drew AP, Shahrizaila N, Nicholson GA, Kennerson ML.Mutation analysis of genes within the dynactin complex in a cohort of hereditary peripheral neuropathies. Clin Genet. 2016 Aug;90(2):127-33. (ISI/SCOPUS Indexed Publication)   
Harmonizing the interpretation of genetic variants across the world: the Malaysian experience. Author(s): Hassan NN; Plazzer JP; Smith TD; et al. DOI: 10.1186/s13104-015-1798-0 BMC Research Notes [2016, 9:125] (ISI-Indexed)   
Mohd-Zin SW, Abdullah NL, Abdullah A, Greene ND, Cheah PS, Ling KH, Yusof H, Marwan AI, Williams SM, York KT, Ahmad-Annuar A, Abdul-Aziz NM. (2016) Identification of the genomic mutation in Epha4 (rb-2J/rb-2J) mice. Genome. 2016 Jul;59(7):439-48. doi: 10.1139/gen-2015-0142 (ISI-Indexed)   
Narayanan V, Veeramuthu V, Ahmad-Annuar A, Ramli N, Waran V, Chinna K, Bondi MW, Delano-Wood L, Ganesan D. (2016). Missense Mutation of Brain Derived Neurotrophic Factor (BDNF) Alters Neurocognitive Performance in Patients with Mild Traumatic Brain Injury: A Longitudinal Study. PLoS One. 2016 Jul 20;11(7):e0158838. doi: 10.1371/journal.pone.0158838 (ISI-Indexed)   
Tan JS, Ambang T, Ahmad-Annuar A, Rajahram GS, Wong KT, Goh KJ. (2016). Congenital myasthenic syndrome due to novel CHAT mutations in an ethnic Kadazandusun family. Muscle Nerve. 2016 May;53(5):822-826. doi: 10.1002/mus.25037. Epub 2016 Mar 23. (ISI-Indexed)   
  
  
2015   
  
Ching AS and Ahmad-Annuar A. 2015. A perspective on the role of microRNA-128 regulation in mental and behavioural disorders. Frontiers in Cellular Neuroscience, (ISI-Indexed)   
The first Malay database toward the ethnic-specific target molecular variation. Halim-Fikri H, Etemad A, Abdul Latif AZ, Merican AF, Baig AA, Annuar AA, Ismail E, Salahshourifar I, Liza- Sharmini AT, Ramli M, Shah MI, Johan MF, Hassan NN, Abdul-Aziz NM, Mohd Noor NH, Nur-Shafawati AR, Hassan R, Bahar R, Zain RB, Yusoff SM, Yusoff S, Tan SG, Thong MK, Wan-Isa H, Abdullah WZ, Mohamed Z, Abdul Latiff Z, Zilfalil BA; members of the Malaysian node of the Human Variome Project. BMC Res Notes. 2015 Apr 30;8:176 (ISI-Indexed)   
DRD and GRIN2B polymorphisms and their association with the development of impulse control behaviour among Malaysian Parkinson's disease patients. Zainal Abidin S, Tan EL, Chan SC, Jaafar A, Lee AX, Abd Hamid MH, Abdul Murad NA, Pakarul Razy NF, Azmin S, Ahmad Annuar A, Lim SY, Cheah PS, Ling KH, Mohamed Ibrahim N. BMC Neurol. 2015 Apr 22;15:59 (ISI-Indexed)   
Alexander P. Drew, Danqing Zhu, Aditi Kidambi, Carolyn Ly, Shelisa Tey, Megan H. Brewer, Azlina Ahmad-Annuar, Garth A. Nicholson & Marina L. Kennerson Improved inherited peripheral neuropathy genetic diagnosis by whole-exome sequencing. Molecular Genetics & Genomic Medicine 2015; 3(2): 143 154 (ISI-Indexed)   
  
  
2014   
  
Chong JW, Azlina AA, Wong KT, Thong MK, Goh KJ. Single mitochondrial DNA deletions in chronic progressive external ophthalmoplegia (CPEO) and Kearns-Sayre syndrome (KSS) patients from a multiethnic Asian population Neurology Asia 2014; 19(1) : 27-36 (ISI-Indexed)   
Shahrizaila N, Samulong S, Tey S, Suan LC, Meng LK, Goh KJ, Ahmad- Annuar A. X-linked Charcot-Marie-Tooth disease predominates in a cohort of multi-ethnic Malaysian patients. Muscle Nerve. 2014 Feb;49(2):198-201. (ISI-Indexed)   
Tey S, Ahmad-Annuar A, Drew AP, Shahrizaila N, Nicholson GA, Kennerson ML. Analysis of dynein intermediate chains, light intermediate chains and light chains in a cohort of hereditary peripheral neuropathies. Neurogenetics. 2014 Jul 16. [Epub ahead of print] (ISI-Indexed)   
Foo JN, Tan LC, Liany H, Koh TH, Irwan ID, Ng YY, Ahmad-Annuar A, Au WL, Aung T, Chan AY, Chong SA, Chung SJ, Jung Y, Khor CC, Kim J, Lee J, Lim SY, Mok V, Prakash KM, Song K, Tai ES, Vithana EN, Wong TY, Tan EK, Liu J. Analysis of non-synonymous-coding variants of Parkinson's disease- related pathogenic and susceptibility genes in East Asian populations. Hum Mol Genet. 2014 Jul 15;23(14):3891-7. doi: 10.1093/hmg/ddu086. Epub 2014 Feb 23. (ISI-Indexed)   
Gopalai AA, Lim SY, Chua JY, Tey S, Lim TT, Mohamed Ibrahim N, Tan AH, Eow GB, Abdul Aziz Z, Puvanarajah SD, Viswanathan S, Looi I, Lim SK, Tan LP, Chong YB, Tan CT, Zhao Y, Tan EK, Ahmad-Annuar A. LRRK2 G2385R and R1628P mutations are associated with an increased risk of Parkinson's disease in the Malaysian population. Biomed Res Int. 2014;2014:867321. doi: 10.1155/2014/867321. Epub 2014 Aug 28. (ISI-Indexed)   
Rapid-Onset Dystonia-Parkinsonism in a Chinese Girl with a De Novo ATP1A3 c.2267G>A (p.R756H) Genetic Mutation, Ai Huey Tan, Laurie J. Ozelius, Allison Brashear, ,Anthony E. Lang,4 Azlina Ahmad-Annuar, Chong Tin Tan, Shen-Yang Lim. doi:10.1002/mdc3.12122 (ISI-Indexed)   
  
  
2013   
  
Zhao Y, Gopalai A, Ahmad-Annuar A, Teng E, Prakash K, Tan L, Au WL, Li HH, Lim SY, Lim S, Chong Y, Tan L, Ibrahim N, Tan EK. Association of HLA locus variant in Parkinson disease. Clinical Genetics 2013;84(5):501-504. (ISI-Indexed)   
  
  
2012   
  
Shahrizaila N, Goh KJ, Annuar AA, Chaudhry R, Ly C,Ryan MM,Nicholson GA, Kennerson M. A family with inheritance of two X-linked disorders: Charcot-Marie-Tooth Disease and Haemophilia A. Muscle Nerve. 2012 Sep;46(3):454-5 (ISI-Indexed)   
  
  
2011   
  
The frequency of common mitochondrial DNA mutations in a cohort of Malaysian patients with specific mitochondrial encephalomyopathy syndromes Jia-Woei Chong, Azlina Ahmad Annuar, Kum-Thong Wong, Meow-Keong Thong, Khean-Jin Goh Neurology Asia 2011; 16(4) : 321 ¿ 327 (ISI-Indexed)   
  
  
2010   
  
Ahmad Annuar A, Wong KT, Ching AS, Thong MK, Wong SW, Alsiddiq F, Ong LC, Goh KJ. Exercise induced cramps and myoglobinuria in dystrophinopathy - a report of three Malaysian cases. Neurology Asia 2010;15(2):125- 131 (ISI-Indexed)   
  
Proceeding   
  
2010   
  
Looi RY, Thong MK, Goh KJ, Ahmad-Annuar A, Shahrizaila N, Thomas T, Khoo TB, Wong KT. 2010. Genetic mutations in sarcoglycanopathies in a Malaysian population. 15th International Congress of the World Muscle Society, Kumamoto, Japan. 12-16 October 2010. Abstract in Neuromuscular Disorders 2010; 20: 609-10. (ISI/SCOPUS Indexed Publication)   
Thong MK, Taufik I, Goh KJ, Azlina AA, Wong KT. 2010. The Molecular Diagnosis of Myotonic Dystrophy in Malaysia. Proceedings of the The 11th International Child Neurology Congress (ICNC 2010) 2nd ¿ 7th May 2010, Cairo, Egypt. The International Journal of Child Neuropsychiatry 2010, Vol 7 (Supplement); 162 (SCOPUS-Indexed)   
  
  
AREAS OF RESEARCH   
(Project title), (Role), (From)-(Until), (Level), (Source).   
  
Whole Exome Sequencing In Families With Early Onset Parkinson's Disease, Principal Investigator(PI), 2013 - 2016, Fundamental Research Grant Scheme (FRGS), (National)   
Neuronal microRNA regulation of cytoskeletal dynamics during axonal pathfinding, Principal Investigator(PI), 2012 - 2012, Geran Penyelidikan Universiti Malaya (UMRG), (National)   
Elucidation of The Mechanism and Rescue of the Human Neural Tube Defects Gene(s), Co-Investigator, 2012 - 2014, High Impact Research (HIR), (National)   
Is cytoplasmic dynein associated with disorders of the peripheral nervous system?, Principal Investigator(PI), 2011 - 2015, High Impact Research (HIR), (National)   
Investigating EphA2 phosphorylation and signalling mechanism in adhesion and fusion of the spinal neural tube, Co-Investigator, 2011 - 2015, High Impact Research (HIR), (National)   
The role of cytoplasmic dynein in regulating axonal pathfinding and synapse formation, Principal Investigator(PI), 2011 - 2015, High Impact Research (HIR), (National)   
Study of micro ribonucleic acid (miRNA) patterns and messesnger RNA splicingamong myotonic dystrophy (RM1) patients of different ages and clinical features., Co-Investigator, 2010 - 2012, Fundamental Research Grant Scheme (FRGS), (National)   
Is the leading edge of neurulation an asymmetrical lamellipodia-like structure emanating from the surface ectoderm and whether this mirrors the human spina bifida condition?, Co-Investigator, 2010 - 2013, High Impact Research (HIR), (National)   
INVESTIGATION OF CARGO-BINDING PARTNERS FOR CYTOPLASMIC DYNEIN, Principal Investigator(PI), 2010 - 2011, Fundamental Research Grant Scheme (FRGS), (National)   
Investigation of cargo-binding partners for cytoplasmic dynein, Principal Investigator(PI), 2010 - 2012, Fundamental Research Grant Scheme (FRGS), (National)   
Does Eph4 play a compensatory role to EphA2 during spinal neural tube closure ?, Co-Investigator, 2009 - 2010, Fundamental Research Grant Scheme (FRGS), (National)   
The role of microRNAs in synapse formation, Principal Investigator(PI), 2009 - 2010, Geran Penyelidikan Universiti Malaya (UMRG), (National)   
  
  
CONSULTATION PROJECT/CONSULTANCY   
(Project title), (Role), (From)-(Until), (Organisation).   
  
Treasurer, 2010-2010, NeuroMalaysia Society   
Editorial Board for Orient Neuron Nexus, 2010-2010, Orient Neuron Nexus   
  
  
AWARDS AND RECOGNITIONS   
(Name of Award), (Awarding Institution), (Year Awarded), (Level).   
  
Malaysia Book of Records for The Longest Dna Helix Made from Jeans, Malaysia Book of Records, 2016, (National)   
Certificate of Excellent Service, University Malaya, 2014, (University)   
Neurofair Judge, Upm, 2013, (National)   
Ibro International Travel Grant - Awarded to My Student, Ching Ai Sze, Ibro, 2012, (International)   
Endeavour Research Fellowship - Awarded to My Student, Tey Shelisa, Department of Education, Employment and Workplace Relations, Australia, 2012, (International)   
  
  
PRESENTATIONS   
(Title), (Event), (Date Presented), (Organiser), (Level).   
INVITED SPEAKER   
  
Spatial navigation, International Brain Research Organisation (Asia-Pacific) symposium, 2009-12-02 to 2009-12-02, Monash University Malaysia, (International)   
LRRK2 involvement in Parkinson's Disease, NeuroMalaysia Society Symposium, 2011-12-12 to 2011-12-13, (International)   
Genetics of Parkinson's Disease in Malaysia, International Conference on Medical and Health Sciences , 2013-05-22 to 2013-05-24, Malaysian Society of Human Genetics, (International)   
Gene hunting using whole exome sequencing , 10th Malaysian Genetics Congress, 2013-12-03 to 2013-12-05, Persatuan Genetik Malaysia, (National)   
Neuroscience overview in UM, 25th Annual Scientific Meeting of the Malaysian Society of Neurosciences 2014, 2014-06-22 to 2014-06-22, Malaysian Society of Neurosciences, (National)   
Genetics of Parkinson s disease and other Neurological Disorders, National Neuroscience Institute, Singapore Research Serminar Series, 2014-10-03 to 2014-10-03, National Neuroscience Institute, Singapore, (International)   
Delving into the nervous system, HIR-Leica microscopy workshop 2015, 2015-02-10 to 2015-02-11, (University)   
Whole exome sequencing in inherited peripheral neuropathies, 26th Annual Scientific Meeting of the Malaysian Society of Neurosciences, 2015-06-05 to 2015-06-07, Malaysian Society of Neurosciences, (National)   
Whole exome sequencing of a Malaysian family with Charcot-Marie-Tooth disease, 6th Annual Neuroscience Seminar, 2016-03-22 to 2016-03-22, UPM, (National)   
  
PLEANARY/KEYNOTE SPEAKER   
  
Trying to figure it out, 2nd Neuroscience Symposium, 2014-05-03 to 2014-05-03, UPM, (National)   
  
POSTER   
  
Analysis of Dynein-Dynactin genes in Inherited Peripheral Neuropathies, GeneMappers Conference, 2012-08-26 to 2012-08-28, (International)   
Park18- a protective variant in Malaysian Parkinson's Disease patients, NeuroMalaysia Symposium , 2012-11-29 to 2012-11-30, (International)   
HLA-DRA: A protective variant in Malaysian Parkinson's Disease patients, Asia Pacific Congress on Human Genetics , 2012-12-05 to 2012-12-08, (International)   
Parkin and PINK1 screening in patients with early onset PD, NeuroMalaysia Symposium 2013, 2013-09-28 to 2013-09-28, NeuroMalaysia Society, (National)   
Whole exome sequencing of a Malaysian family with Charcot Marie Tooth disease reveals a novel candidate gene for autosomal recessive CMT, 2015 PNS meeting, 2015-06-28 to 2015-07-02, Peripheral Nerve Society, (International)   
  
ORAL   
  
Whole exome sequencing in a Malaysian CMT family (presented by my student), 5th CMT consortium, 2013-06-25 to 2013-06-27, International CMT consortium, (International)   
Whole exome sequencing in a Malaysian family with Charcot-Marie-Tooth disease, NeuroMalaysia Symposium, 2013-09-28 to 2013-09-28, NeuroMalaysia Society, (National)   
Gene expression analysis of R3hdm1, NeuroMalaysia Symposium, 2013-09-28 to 2013-09-28, NeuroMalaysia Society, (National)   
Gene mapping for a consanguineous family with CMT, GeneMappers 2014, 2014-05-11 to 2014-05-14, Genemappers consortium Australia, (International)   
Whole exome sequencing a consanguineous family in search for a novel genetic cause of Charcot-Marie Tooth Disease - oral presentation by my PhD student, Tey Shelisa , American Society of Human Genetics conference 2014 -, 2014-10-20 to 2014-10-20, American Society of Human Genetics, (International)   
Whole exome sequencing of a Malaysian family with Charcot-Marie-Tooth Disease, 3rd Pan-Asian Biomedical Science Conference, 2016-12-07 to 2016-12-08, Faculty of Health Sciences, UKM, (International)   
  
EVENT ORGANISER   
  
Workshop on NGS, specifically WES, Find that gene!, 2014-06-03 to 2014-06-04, Myself, (National)   
Linkage analysis workshop, Linkage analysis workshop, 2015-11-17 to 2015-11-17   
  
INVITED SEMINAR   
  
Scientific session, 26th Annual Scientific Meeting of the Malaysian Society of Neurosciences, 2015-06-05 to 2015-06-07, Malaysian Society of Neuroscience, (National)   
  
OTHERS   
  
R3hdm1, a nucleic acid binding gene, FENs 2012, 2012-07-14 to 2012-07-18, (International)   
R3hdm1, a nucleic acid binding gene, NeuroMalaysia Symposium 2012, 2012-11-29 to 2012-11-30, (International)   
Neurogenetics, 15th Asian and Oceanic Neurology Congress, 2016-08-18 to 2016-08-21, Asian and Oceanic Congress of Neurology, (International)   
Representing Jeans for Genes Malaysia, Rare Disorders Asia Conference, 2016-11-17 to 2016-11-19, Rainbow Across Borders, (International)   
  
  
EXPERT LINKAGES   
(Linkages Description), (Organisation), (Year of Involvement), (Duration), (Level).   
  
Asia Pacific CMT consortium, Research labs within the Asianic region, 2016, 36, (International)   
  
  
EXPERT/TECHNICAL CONTRIBUTIONS   
(Activity), (Organisation), (Role), (From)-(Until), (Level).   
  
Development of the Labyrinth111\_UM maze, University of Malaya, Expert Advisor, 2016-2016, (University)   
National Science Quiz 2016: Coordinator for Labyrinth111\_UM maze activity for the participants, Academy Science Malaysia, Coordinator, 2016-2016   
Penilaian sebutharga bagi refrigerated centrifuge, Dept of Biomedical Science, Committee Member, 2014-2014, (University)   
  
  
EVALUATION ACTIVITIES   
(Description), (Evaluation Activity),(Year).   
  
PhD thesis for PMA, Thesis , (2016 - 2016)   
External examiner, UPM candidate (AJ), Thesis , (2015)   
PhD thesis, La Trobe University, Australia(A.A-A), Thesis , (2015)   
Masters thesis, UPM candidate (AL), Thesis , (2015)   
MAsters thesis, UPM candidate (HTY), Thesis , (2015)   
Masters thesis, UM candidate (MD), Thesis , (2015)   
Masters thesis, UPM candidate (NN), Thesis , (2015)   
Examiner for Masters Candidature defence (NJB), Candidature Defence Seminar , (2014 - 2014)   
External examiner for Rabia Chaudhry, PhD thesis, University of Sydney, Thesis , (2014 - 2014)   
Brain Bee Competition 2014, Competition , (2014 - 2014)   
Reviewer for the journal 'Gene', Article In Journal , (2012)   
Neurology Asia manuscript 234/12, Article In Journal , (2012)   
Neurology Asia manuscript 44/12, Article In Journal , (2012)   
Mohammad Shaker Masters candidature defence (UM), Thesis , (2012)   
Nursalihah bt Muhammad Masters Candidature defence (UM), Project , (2012)   
Neurology Asia manuscript 95/12, Article In Journal , (2012)   
  
  
CONTRIBUTION TO SOCIETY   
(Contribution To Society), (Level), (Start Date), (End Date).   
  
Talk to Standard 3 pupils on DNA at Sekolah Kebangsaan Taman Megah, 8 November 2016, 8-10.30am., (Community), 08/11/2016 until 08/11/2016   
Director of Jeans for Genes Malaysia 2016. Organised an awareness campaign about genetic disorders, and made a Malaysian Record for the longest DNA helix made out of jeans on 25th Sept 2016., (National), 25/09/2016 until 25/09/2016   
Brain Awareness Day 2016: Organised a public event for Brain Awareness Day, held at the Labyrinth111\_UM maze. Opening by Deputy VC (Development) Prof Faisal Rafiq Adikan, (Community), 19/03/2016 until 19/03/2016   
Co-organised the World Rare Disease Day celebration together with the Malaysian Rare Disorders Society, 25-28th February 2016., (Community), 25/02/2016 until 28/02/2016   
Alzheimer's Daycare Centre visit. Activities with AD patients., (Community), 20/05/2015 until 20/05/2015   
Brain Awareness Day 2015, fun talks to kindergarten children to tell them more about the brain., (Community), 13/03/2015 until 13/03/2015   
Jeans for Genes Day 2014. Part of committee: Organised wheelchair race, nucleotide cupcakes sales, documentary screening, DNA sample collection, , (National), 15/09/2014 until 19/09/2014   
Worked with the Malaysian Rare Disorders Society on their Family Day as facilitator for the family-based groups, 22 March 2014, at the MBPJ library, PJ., (National), 22/03/2014 until 22/03/2014   
Brain Awareness Day 2014 welcoming speech, (National), 15/03/2014 until 15/03/2014   
Acted as MC for the Hari NTD event which was organised to give support for families with children with Neural tube defects on 5 January 2014, at the Faculty of Medicine, UM., (National), 05/01/2014 until 05/01/2014   
Malaysian Rare Disorders Society: participated at the Society's booth during the Star Health Fair 2012, conducted a Survey on Rare Disorders., (National), 07/04/2012 until 07/04/2012   
Brain Awareness Day 2012: organised public event to raise awareness on brain related research and health issues, (Community), 18/03/2012 until 18/03/2012   
Malaysian Rare Disorders Society: participation at their Rare Diorders Day exhibition at UMMC, 27-29th February 2012, (Community), 27/02/2012 until 29/02/2012   
Talk to the Alzheimer's Disease Support Group, (State), 18/06/2011 until 18/06/2011   
  
  
SUPERVISION   
POST GRADUATE STUDENT   
(Name of Degree), (Name of Candidates), (Title of Thesis), (Academic Session)   
  
Ongoing   
  
Masters Degree, Adibah Binti Sahmat, DOES LATERALITY PLAY A ROLE DURING NEURAL TUBE CLOSURE?, 2015/2016   
Masters Degree, Dauda Abdullahi, NEUROPROTECTION, DIFFERENTIAL EXPRESSION OF WNT SIGNALLING PATHWAY AND BEHAVIOURAL RECOVERY INDUCED BY SPIRULINA PLANTESIS IN SPINAL CORD INJURED RATS, 2015/2016   
Masters Degree, Siti Waheeda Binti Mohd. Zin @ Zain, IDENTIFICATION OF POTENTIAL GENES ASSOCIATED WITH HUMAN NEURAL TUBE DEFECTS, 2013/2014   
Masters Degree, Sarimah Bt Samulong, Common genetic mutations in Charcot Marie Tooth Disease, 2012/2013   
Doctoral Degree (phd), Tey Shelisa, Inherited peripheral neuropathies: Mutational analysis of cytoplasmic dynein-dynactin genes and the identification of a novel autosomal recessive gene, 2012/2013   
Masters Degree, Tey Shelisa, Dynein-dynactin genes and inherited peripheral neuropathies, 2011/2012   
Masters Degree, Aroma Agape Gopalai, Movement Disorders in Malaysia, 2011/2012   
Masters Degree, Ching Ai Sze, The role of microRNAs in synapse formation, 2010/2011   
Masters Degree, Norlinda Abdullah, Ephrins in Neural tube development, 2010/2011   
  
  
Completed   
  
Doctoral Degree (phd), Aroma Agape Gopalai, Investigation of Genetic Loci Associated with Parkinson's Disease and the Functional Effect of LRRK2 Mutations.   
Doctoral Degree (phd), Ching Ai Sze, Contribution of MIR-128 and R3HDM1 in Neuronal Synaptic Maturation, 2012/2013   
Masters Degree, Sarimah Samulong, Identification of Mutations in Genes Commonly Associated with Charcot-Marie-Tooth Disease in a Malaysian Cohort and A survey on the Malaysian Perspective of Rare Disorders, 2012/2013   
Masters Degree, Nor Linda Binti Abdullah, The Role of Erythropoietin-producing Hepatocellular Receptor Tyrosine Kinase class A2 and A4 (EphA2 and EphA4) in Mediating Neural Tube Closure in a Mouse Model, 2010/2011   
Masters Degree, Chong Jia Woei, Identification Of Mitochondrial Mutations In Common Mitochondrial Disorders, 2008/2009   
Masters Degree, Chong Jia Woei, IDENTIFICATION OF MITOCHONDRIAL DNA MUTATIONS IN A MALAYSIAN POPULATION WITH MITOCHONDRIAL DISORDERS, 2007/2008   
  
FIRST DEGREE/DIPLOMA/PRE-DEGREE   
(Course Title), (Academic Session), (No. of Candidates)   
  
Completed   
  
LRRK2 genotyping in PD patients, 2010/2011, 1   
Spatial navigation: A virtual and molecular study, 2009/2010, 1   
Duplication and point mutation testing in DMD patients, 2009/2010, 1   
Binding partners of dynein, 2009/2010, 1   
  
  
TEACHING   
(Course Title), (Academic Session), (No of Student), (No of Contact Hours).   
POST GRADUATE   
  
Masters in Psychological Medicine, 2010/2011(1), 8, 4   
Masters in Oncology, 2010/2011, 8, 2   
  
FIRST DEGREE   
  
GENOMICS AND GENE EXPRESSION, 2016/2017(1), 48, 42   
PRINCIPLES OF NEUROSCIENCE, 2016/2017(1), 40, 34   
CELLULAR AND MOLECULAR GENETICS, 2016/2017(1), 4, 42   
CELLULAR AND MOLECULAR GENETICS, 2015/2016(1), 27, 34   
RESEARCH PROJECT IN BIOMEDICAL SCIENCE, 2015/2016(1), 25, 50   
PRINCIPLES OF NEUROSCIENCE, 2015/2016(1), 25, 36   
CURRENT TOPICS IN BIOMEDICAL SCIENCE, 2015/2016(2), 25, 32   
PRINCIPLES OF NEUROSCIENCE, 2015/2016, 25, 56   
CELLULAR AND MOLECULAR GENETICS, 2015/2016(1), 27, 57   
CELLULAR AND MOLECULAR GENETICS, 2014/2015(1), 34, 62   
PRINCIPLES OF NEUROSCIENCE, 2014/2015(1), 35, 62   
PRINCIPLES OF NEUROSCIENCE, 2013/2014(1), 33, 27   
ETHICS IN BIOMEDICINE, 2013/2014(2), 33, 2   
CURRENT TOPICS IN BIOMEDICAL SCIENCE, 2013/2014(2), 34, 38   
CELLULAR AND MOLECULAR GENETICS, 2013/2014, 31, 41   
CELL BIOLOGY AND INTRODUCTORY GENETICS, 2011/2012, 35, 7   
CELLULAR AND MOLECULAR GENETICS, 2011/2012, 35, 35   
APPLICATION AND ADVANCES IN MOLECULAR BIOLOGY, 2011/2012, 35, 2.5   
Applications and Advances in Molecular Biology, 2010/2011, 40, 4   
Cellular and Molecular Genetics, 2010/2011, 40, 4   
RESEARCH PROJECT IN BIOMEDICAL SCIENCES, 2009/2010, 3, 240   
CURRENT TOPICS IN BIOMEDICAL SCIENCES, 2009/2010, 40, 72   
CELLULAR AND MOLECULAR GENETICS (B), 2009/2010(1), 49, 60   
APPLICATION AND ADVANCES IN MOLECULAR BIOLOGY, 2009/2010, 48, 4   
APPLICATION AND ADVANCES IN MOLECULAR BIOLOGY, 2008/2009(1), 43, 16   
CELLULAR AND MOLECULAR GENETICS (B), 2008/2009(1), 45, 58   
CELL BIOLOGY AND INTRODUCTORY GENETICS COURSE, 2008/2009(1), 38, 30   
CURRENT TOPICS IN BIOMEDICAL SCIENCES, 2007/2008, 44, 42   
CELL BIOLOGY AND INTRODUCTORY COURSE, 2007/2008(1), 43, 30

***Junedah Sanusi, Ph.D***  
Department of Anatomy, Faculty of Medicine, University of Malaya

**CV:**  
  
ACADEMIC QUALIFICATION   
  
Post-Graduate Diploma in Education , UNIVERSITI TEKNOLOGI MALAYSIA (UTM)   
Dip. in Translation, DEWAN BAHASA DAN PUSTAKA   
Doping control certificate of competence, KEMENTERIAN KESIHATAN MALAYSIA   
PHD(LONDON), UNIVERSITY COLLEGE LONDON, GOWER STREET LONDON WC1   
MSC(KANSAS), KANSAS STATE UNIVERSITY, MANHATTAN   
BSC(KANSAS), KANSAS STATE UNIVERSITY, MANHATTAN   
  
PROFESSIONAL   
(Organisation), (Role), (Year), (Level).   
  
Malaysian Society of Neurosciences, Life Member, 2011, (National)   
The Day Care Centre and Creche for Academic/Research Staff in Faculty of Medicine, University of Malaya, Committee Member, 2011 to 2012, (University)   
Institut Antarabangsa Polisi Awam dan Pengurusan (INPUMA), Associate Member, 2012 to 2013, (University)   
Kementerian Tenaga, Teknologi Hijau dan Air Malaysia, Consultancy Work, 2012 to 2013, (University)   
Council member Ministry of Higher Education Council of Public Universities' e-learning Heads of Coordinators (MEIPTA) 2015-2016 , Academic Committee Member, 2015 to 2016, (National)   
Lions Club Of Cybercare Kuala Lumpur , Vice President, , (National)   
Malaysian Society for Biochemistry and Molecular Biology, Member, , (National)   
Special Committee on Sexual Harassment Universiti Malaya, Chairman, , (National)   
Islamic Academy of Science Malaysia (ASASI), Member, , (National)   
Academic Staff University Malaya (ASA/ PKAUM) Trade Union , Vice President, , (National)   
The Physiological Society, U.K, Member, , (International)   
Malaysian Society for Doping Control in Sports (MASDOCS), Member, , (International)   
Asia Pacific Association for Problem-Based Learning in Health Sciences, Member, , (International)   
Electron Microscopy Society Malaysia, Member, (National)   
  
  
ADMINISTRATIVE DUTIES   
(Role), (Level), (Start date),(End Date).   
  
Programme Coordinator, University Malaya, 01/03/2016 to 28/02/2018 (Coordinator, Master of Public Policy, INPUMA, Universiti Malaya)   
Deputy Director (Academic), University Malaya, 01/03/2016 to 28/02/2018 (Timbalan Pengarah, Institut Antarabangsa Polisi Awam dan Pemgurusan (INPUMA))   
Ahli Jk Kecil Siasatan Biro Aduan Gangguan Seksual (Bags) Universiti Malaya 2016, University Malaya, 15/01/2016 to 31/12/2017 (AJKKecil Siasatan)   
Ahli Jawatan Kuasa, Biro Aduan Gangguan Seksual (Bags) Universiti Malaya 2016, University Malaya, 01/01/2016 to 31/12/2016 (BAGS)   
Acting Director of University Malaya Academic Development Center (Adec), University Malaya, 01/06/2015 to 11/09/2015   
  
  
AREAS OF EXPERTISE   
(Area).   
  
Medical and Health Sciences, Neurosciences   
Central Nervous System (spinal cord injury, motoneurone pool, afferent activity, motoneurone development, locomotor function, supplements)   
Peripheral Nervous System (Sciatic nerve, regeneration, nerve crush injury, supplements, reinnervation of muscles)   
  
  
  
RECENT SELECTED PUBLICATIONS   
(Publication).   
Book   
  
2016   
  
Aida Suraya Md Yunus et al. Guideline for the Implementation of HIEPS High-Impact Education Practices in the Curicullum. 2016. Center for Academic Development (CADe), Universiti Putra Malaysia. ISBN: 978-967-960-380-4   
  
  
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Hematological Effects of Palm ViteE in Pregnant Rats. Sanusi J, Abd Niefaizal AH, Maria M, Huzwah K, Mohd Sokhini AM, Mahdy ZA. Malaysian Journal of Biochemistry and Molecular Biology, Vol 9: 55, 2004 (Non-ISI/Non-SCOPUS)   
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The Effect of Maternal Intake of Palm ViteE on the Brain Vitamin E Level of Newborn Rats. Maria M, Abd Niefaizal AH, Huzwah K, Mohd Sokhini AM, Mahdy ZA, Durriyyah SHA, Sanusi J. Malaysian Journal of Biochemistry and Molecular Biology, Vol 9: 66, 2004 (Non-ISI/Non-SCOPUS)   
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Dauda Abdullahi, Azlina Ahmad Annuar & Junedah Sanusi (2016) Neuroprotective Effects of Spirulina platensis on the Spinal Cord Following Spinal Cord Injury in Rat Models: Ultrastructural Study. 25th Scientific Conference of the Microscopy Society Malaysia, 7-8 Dec 2016, Hotel Bangi-Putrajaya, Selangor, Malaysia. Page 40 (Non-ISI/Non-SCOPUS)   
  
  
1998   
  
D.S.H. Adli, A.B. Azlinda, K.R. Anita, S. Rohani, L.E. Puah & S. Junedah. 1998. Histological Effects of Anatomy on Spinal Cord Motor Neurons of Bufo melanostictus. Proceedings 7th Scientific Conference of the Electron Microscopy Society Malaysia, pg. 194-196   
  
Extended Abstract   
  
2002   
  
Maria M., Junedah S., Niefaizal A.A.H., Huzwah K., Sokhini M.A.M., Zaleha A.M. and Durriyyah S.H.A., 2002. The Effects of Maternal Palm Vite E on the Brain Weight of Newborn Rats, Abstract Book of Scientific Conference on Food Antioxidants, Nutrition, Health and Consumer Perspectives. Universiti Putra Malaysia.   
Maria M., Huzwah K., Mohd. Sokhini .A.M., Mahdy, Z.A., Durriyyah S.H.Adli and Sanusi J. 2002. The Effect of Maternal Intake of Palm Vite E on Neurologic Reflexes of Newborn Rats, Abstract Book of 5th. Scientific Congress Federation of Asian & Oceanian Physiological Societies. University of Malaya Centre for Continuing Education.   
  
Translations   
  
1996   
  
Contributing translator Malaysian Healthcare Guide   
  
List of Written Works That Have Not Been Published   
  
2000   
  
Cadangan Garis Panduan Untuk Menghindar dan Membenteras Gangguan Seksual di Universiti Malaya (Non-ISI/Non-SCOPUS)   
Bab tujuh: Teknologi Komunikasi dan Maklumat dan Kanak-kanak: Pengajaran daripada CyberCare oleh Dr. Junedah Sanusi. dalam ¿Meniti Jurang Digital di Malaysia¿ Penerbitan UKM (in press) (Non-ISI/Non-SCOPUS)   
  
Others   
  
2008   
  
Effect of precocious locomotor activity on the development of motoneurones and motor units of slow and fast muscles in rat.   
  
  
AREAS OF RESEARCH   
(Project title), (Role), (From)-(Until), (Level), (Source).   
  
Um-liter : Action Research, Feminist Pedagogy And Blended Learning, Consultant, 2016 - 2017, RU Geran, (National)   
Um-liter: Problem-based Learning In Master Of Public Policy Programme, Principal Investigator(PI), 2016 - 2017, RU Geran, (National)   
Neuroprotection, Differential Expression of Wnt Signalling Pathway and Behavioral Recovery Induced by Spirulina platensis in Spinal Cord Injured Rats Model., Principal Investigator(PI), 2016 - 2018, Postgraduate Research Grant (PPP) - Research, (National)   
Enhancing Medical Students Written Communication Skills Through Corrective Feedback, Consultant, 2015 - 2017, Geran Penyelidikan Universiti Malaya (UMRG Programme) - HNE (Humanities & Ethics), (University)   
Effacts Of Microalgae Spirulina Sp. Supplementation On Changes After Spinal Cord Injury In Rat, Principal Investigator(PI), 2014 - 2016, Program Rakan Penyelidikan UM, (University)   
The Inducibility of alpha-tocopherol transfer protein (Alpha-TTTP) expression to reduce biodiscrimination of other E vitamers absorption, Co-Investigator, 2012 - 2014, Fundamental Research Grant Scheme (FRGS), (National)   
1) The effects of Supplementation with Evening Primrose Oil (EPO) on Peripheral Nerve Regeneration in Rats: Morphometric Analysis and Immunohistochemistry Study. 2) Neuroprotective Role of The Antioxidant Palm Vitamin E After Spinal Cord Injury in Rats., Principal Investigator(PI), 2011 - 2014, Postgraduate Research Grant(PPP), (National)   
ROLE OF VITAMIN E FROM MALAYSIAN PALM OIL AS NEUROPROTECTIVE AND ANTIOXIDANT THERAPHY IN ACUTE SPINAL CORD INJURY: A BEHAVIOURAL, ELECTROPHYSIOLOGICAL, IMMUNOHISTOCHEMISTRY AND REAL TIME-POLYMERASE CHAIN REACTION STUDY, Principal Investigator(PI), 2009 - 2011, Geran Penyelidikan Universiti Malaya (UMRG), (National)   
EFFECTS OF EVENING PRIMROSE OIL (OIL) SUPPLEMENT ON CHANGES AFTER SPINAL CORD INJURY IN RATS, , 2009 - 2010, Postgraduate Research Grant (PPP) - Research, (National)   
FATE OF MESENCHYMAL STROMAL CELL FROM HUMAN BONE MARROW AFTER TRANSPLANTATION INTO ACUTELY INJURED SPINAL CORD IN RATS, , 2008 - 2009, Postgraduate Research Grant (PPP) - Research, (National)   
Factors affecting early postnatal motoneurone development and possible implications in spinal muscular atrophy, Others, 2008 - 2008, -, (National)   
Post-synaptic neuromuscular blockade in neonatal rats and its effects on the development and maturation of motoneurones and muscle., Principal Investigator(PI), 2008 - 2008, Short Term Research Fund (Vote F)(PJP), (National)   
MESENCHYMAL STROMAL CELLS IMPLANTATION : IMPLICATIONS ON TREATMENT FOR ACUTE SPINAL CORD INJURY IN RATS, Principal Investigator(PI), 2007 - 2011, Fundamental Research Grant Scheme (FRGS), (National)   
Mesenchymal stromal cells implantation: Implications on treatment for acute spinal cord injury., Principal Investigator(PI), 2007 - 2010, Fundamental Research Grant Scheme (FRGS), (National)   
FATE OF MESENCHYMAL STROMAL CELL FROM HUMAN BONE MAROW AFTER TRANSPLANTATION INTO ACUTELY INJURED SPINAL CORD IN RATS, , 2007 - 2009, Postgraduate Research Grant (PPP) - Research, (National)   
  
  
CONSULTATION PROJECT/CONSULTANCY   
(Project title), (Role), (From)-(Until), (Organisation).   
  
External Examiner for First Professional Exam, Faculty of Dentistry, Lincoln University College Malaysia. 30th May-17th June 2016, 2016-2016, Lincoln University College Malaysia   
External Examiner Master of Science for Zahra Abedi (GS35289), Modification of NMDA &A/ Kainate receptors by Tocotrienols in Glutamate induced injury of primary astrocytes., 2016-2016, Universiti Putra Malaysia   
Pemeriksa Luar Program Sarjana Muda Pembedahan Pergigian (DS240) Fakulti Pergigian, University Teknologi Mara. 15 Jan 2015- 14 Jan 2016, 2015-2015, University Teknologi Mara   
Ahli Jawatankuasa 'PBL Case Design' Fakulti Perubatan, UM, 2013-2013, Universiti Malaya   
PBL Committee member, Faculty of Medicine, University of Malaya, 2013-2013, Universiti Malaya   
Animal Experimental Unit Advisory Members, Universiti of Malaya, 2012-2012, Animal Experimental Unit   
External Examiner for Master Science Student - Ibrahim bin Musa (Sekolah Pengajian Siswazah, Universiti Putra Malaysia), 2012-2012, Sekolah Pengajian Siswazah, Universiti Putra Malaysia   
Assessment on candidate for Associate Professor position Dr. Norzana binti Abd. Ghafar, 2012-2012, Universiti Kebangsaan Malaysia   
Consultant for Problem Based Learning Workshop, 2012-2012, Kolej Matrikulasi Selangor   
Committee member for Project of The Day Care Centre And Creche, 2011-2011, Academic/Research Staff in Faculty of Medicine, UM.   
  
  
AWARDS AND RECOGNITIONS   
(Name of Award), (Awarding Institution), (Year Awarded), (Level).   
  
Khidmat Setia 20 Award, 2008   
Excellence Service Award, University Malaya, 2007, (University)   
Selected for Spinal Cord Injury Research Techniques Course, 2-20 July 2007 (Only 18 Participants Worldwide Selected / Year), Reeve Irvine Reseach Center (Rirc), University of California, Irvine., 2007, (International)   
Sijil Khidmat Cemerlang 2003 Excellent Service Certificate, University Malaya, 2004, (University)   
3rd Prize (Postgraduate Category) Poster Presentation Award The Effects of Palm Vite E On The Gestation Period and Number of Pups Delivered in Rats. Abdul Niefaizal, a. H., Junedah, S., Maria, M., Huzwah, K., Mohd Sokhini, a. M. & Zaleha, a.M., Scientific Conference On Food Antioxidants, Nutrition, Health and Consumer Perspectives. Universiti Putra Malaysia., 2002, (National)   
3rd Prize (Biological Science, Light Microscope) Poster Presentation Award Effects of Diabetes On Upper Limb Muscles in Rats W.W. Kyi and J. Sanusi, The 3rd Asean Microscopy Conference and The 19th Annual Conference of The Electron Microscopy Society of Thailand. 30th Jan- 1st Feb. 2002. Chiang Mai, Thailand, 2002, (International)   
Best Poster Presentation Mental Health Profile of 1st Year MBBS Students in University of Malaya: Does Pbl Play a Role? Junedah Sanusi, Nor Zuraidah Zainal and Iwan Kamarudzaman., 2nd Asia- Pacific Conference On Problem-Based Learning (Pbl) in Health Sciences: Quality Assurance in Pbl. 30-31 Oct 2001 Kuala Lumpur, 2001, (International)   
Jsps Fellowship for Exchange Research Fellow, Japanese Society for Promotion of Science (Jsps), 1998, (International)   
  
  
PRESENTATIONS   
(Title), (Event), (Date Presented), (Organiser), (Level).   
INVITED SPEAKER   
  
Planning effective instruction: Know your learners, Training programme for new lecturers (TPNL), 2011-05-09 to 2011-05-13, Universiti Malaya, (University)   
Module 1: Roles and Responsibilities of a Lecturer and Your Teaching Philosophy, Training Program for New Lecturers (TPNL), Universiti Malaya, July 2016, 2016-07-18 to 2016-07-22, Academic Development Center (ADEC) Universiti Malaya, (University)   
iCONS Programme Module 1: All for One, iCONS Programme Module 1: All for One, 2016-11-05 to 2016-11-06, SERU, HEP Universiti Malaya, (University)   
  
PRESENTER   
  
Perception of Medical Students on Peer-Assisted Learning Program for Anatomy, FEIIC International Conference on Engineering Education & Research 2015 (FICEER 2015), Madinah, Kingdom of Saudi Arabia, 19-21 Dec 2015., 2015-12-19 to 2015-12-21, (International)   
  
EVENT ORGANISER   
  
Moderator, Symposium Universities in Transition: Blending Online & Offline Learning, ADeC University Malaya. 4-5 August 2015, 2015-08-04 to 2015-08-05, ADeC University Malaya, (National)   
  
OTHERS   
  
Workshop on Maximising Brain Performance: A Preview, Workshop on Maximising Brain Performance: A Preview, 2012-03-06 to 2012-03-06, Department of Educational Pyschology and Counseling, Faculty of Education, (University)   
  
  
EXPERT/TECHNICAL CONTRIBUTIONS   
(Activity), (Organisation), (Role), (From)-(Until), (Level).   
  
Speaker for Training Programme For New Lecturers (TPNL) Session Title: Planning Effective Curriculum and Instruction, Academic Development Centre (ADeC), Speaker, 2013-2013, (University)   
Facilitator Training Programme For New Lecturers & Training Programme for Tutors, Academic Development Centre, Level 14, Wisma R&D, University of Malaya, Facilitator, 2013-2013, (University)   
Academic Advisor Phase 1 MBBS Session 2012/2013, Department of Anatomy, Faculty of Medicine, University of Malaya, Advisor, 2012-2013, (University)   
Anatomy Course Coordinator MBBS Phase 2 Session 2012/2013, Department of Anatomy, Faculty of Medicine, University of Malaya., Coordinator, 2012-2013, (University)   
Facilitator Workshop Facilitating Problem Based Learning, Academic Development Centre, Level 14, Wisma R&D, University of Malaya, Facilitator, 2012-2012, (University)   
Anatomy Course Coordinator MBBS Phase 2 Session 2011/2012, Department of Anatomy, Faculty of Medicine, University of Malaya, Coordinator, 2011-2012, (University)   
Academic Advisor Phase 1 MBBS Session 2011/2012, Department of Anatomy, Faculty of Medicine, University of Malaya, Advisor, 2011-2012   
  
  
EVALUATION ACTIVITIES   
(Description), (Evaluation Activity),(Year).   
  
Grant Application Assessor for Penyelidikan Universiti Penyelidikan (RU). Project title: Sexual Harrasment in higher Education. By: Assoc. Prof. Dr. Siti Hawa Ali., Project , ( )   
External Examiner, Postgraduate Professional Exam DClinDent (DCM901), Faculty of Dentistry, University Teknologi MARA, Malaysia. 31 August-4 Sept 2015, Postgraduate Professional Examination , (2015 - 2015)   
External Examiner for Professional Examination of Bachelor of Dental Surgery (DS240) 15 Jan 2015 - 14 Jan 2016, Professional Examination , (2015 - 2015)   
External Examiner for Candidature Defense Title: Hepatoprotective effect of Curcuma Xanthorrhiza and Ipomoea Aquatic in Thioacetamide-Induced Liver Cirrhiosis rats, Candidature Defense , (2012 - 2012)   
External examiner for First Professional Examination session 2009/2010, Faculty of Medicine and Health Sciences (FPSK), Universiti Sains Islam Malaysia (USIM), Candidature Defense , (2010)   
External Examiner for Thesis title: Effect of ultrasound on the ovary and pregnancy. By: Dr. Shadab Ahmed Butt. University of Health Sciences, Lahore, Pakistan., PhD Thesis, Thesis , (2010)   
  
  
CONTRIBUTION TO SOCIETY   
(Contribution To Society), (Level), (Start Date), (End Date).   
  
Judge Panel Cabaran Penyelidikan Gender Wanita Muda 2012 (Pertandingan Pidato Wanita Muda dan Pertandingan Rancangan Perniagaan Wanita)., (National), 17/11/2012 until 17/11/2012   
Consultant INPUMA Project Kementerian Belia dan Sukan (Programme "Perdana Leader Fellowship"), (National), 15/10/2012 until 30/03/2013   
Consultant INPUMA Project (Kementerian Teknologi, Tenaga Hijau dan Alam Sekitar)., (National), 01/06/2012 until 31/05/2014   
Committee Member The Day Care Centre and Creche for Academic/Research Staff in Faculty of Medicine, University of Malaya., (University), 01/08/2011 until 31/07/2012   
Special Committee on Sexual Harassment Universiti Malaya, (University), 01/01/2003 until 19/02/2009   
Board of Administration University Malaya Child Care Center (Taman Asuhan Kanak-Kanak Universiti Malaya /TASKUM) , (University), 01/01/2000 until 31/12/2014   
Association of Academic Staff University Malaya (ASA/ PKAUM) Trade Union , (University), 01/01/1999 until 19/02/2009   
  
  
SUPERVISION   
POST GRADUATE STUDENT   
(Name of Degree), (Name of Candidates), (Title of Thesis), (Academic Session)   
  
Completed   
  
Masters Degree, Izzuddin Bin Aziz, Effect of Spirulina platensis Supplementation on Behavioral and Histological Changes After Spinal Cord Injury in Rats., 2011/2012   
Masters Degree, Izzuddin Bin Aziz, Effect of Spirulina platensis Supplementation on Behavioral and Histological Changes After Spinal Cord Injury in Rats., 2011/2012   
Masters Degree, Fatemeh Hajiaghaalipour, Medicinal Properties of Camellia Sinensis, 2010/2011   
Masters Degree, Fatemeh Hajiaghaalipour, Medicinal properties of Camellia sinensis, 2010/2011   
Masters Degree, Fatemeh Hajiaghaalipour, Medicinal Properties of Camellia Sinensis, 2010/2011   
Masters Degree, Habsah Binti Aziz, ESTIMATION OF THE PRODUCT YIELD AND COLLECTION EFFICIENCY OF PERIPHERAL BLOOD STEM CELL HARVESTING USING PERIPHERAL BLODD CD34 CELLS QUANTIFICATION, 2008/2009   
Masters Degree, Habsah Binti Aziz, ESTIMATION OF THE PRODUCT YIELD AND COLLECTION EFFICIENCY OF PERIPHERAL BLOOD STEM CELL HARVESTING USING PERIPHERAL BLODD CD34 CELLS QUANTIFICATION, 2008/2009   
Masters Degree, Masro Bin Mohamad @ Puad, FATE OF MESENCHYMAL STROMAL CELLS FROM HUMAN BONE MARROW AFTER TRANSPLANTATION INTO ACUTELY INJURED RAT SPINAL CORD, 2007/2008   
Masters Degree, Masro Mohamad @ Puad, Fate of Mesenchymal Stromal Cell From Human Bone Marrow After Transplantation Into Acutely Injured Spinal Cord Injury, 2007/2008   
Masters Degree, Masro Bin Mohamad @ Puad, FATE OF MESENCHYMAL STROMAL CELLS FROM HUMAN BONE MARROW AFTER TRANSPLANTATION INTO ACUTELY INJURED RAT SPINAL CORD, 2007/2008   
Masters Degree, Habsah Bt Aziz, Estimation of the product yield and collection efficiency of peripheral blood stem cell harvesting using peripheral blood CD34+ cells quantification, 2004/2005   
Masters Degree, Abdul Niefaizal Abdul Hammid, Effects of Palm Vite E on Pregnant Rats and Fetal Development, 2001/2002   
  
  
Ongoing   
  
Doctoral Degree (phd), Zubaidah Abu Hassan, Morphological and Taxonomic Evaluation of 21 Indo-Malaysian Stingless Bee Species in Sekayu Using Scanning Electron Microscopy Technique, 2016/2017   
Masters Degree, Dauda Abdullahi, NEUROPROTECTION, DIFFERENTIAL EXPRESSION OF WNT SIGNALLING PATHWAY AND BEHAVIOURAL RECOVERY INDUCED BY SPIRULINA PLANTESIS IN SPINAL CORD INJURED RATS, 2015/2016   
Masters Degree, Dauda Abdullahi, NEUROPROTECTION, DIFFERENTIAL EXPRESSION OF WNT SIGNALLING PATHWAY AND BEHAVIOURAL RECOVERY INDUCED BY SPIRULINA PLANTESIS IN SPINAL CORD INJURED RATS, 2015/2016   
Masters Degree, Izzuddin Bin Aziz, Effects of microalgae Spirullina sp. supplementation on changes after spinal cord injury in rats, 2011/2012   
Masters Degree, Muhammad Danial Bin Che Ramli, The Effects of Supplementation with Evening Primrose Oil (EPO) on Peripheral Nerve Regeneration in Rats: Functional Recovery and Morphometric Analysis, 2010/2011   
Masters Degree, Parastoo Mojtahedzadeh Ardabili, Neuroprotective Role Of The Antioxida Palm Vitamin E After Spiral Cord Injury In Rats, 2010/2011   
Masters Degree, Parastoo Mojtahedzadeh Ardabili, Neuroprotective Role Of The Antioxida Palm Vitamin E After Spiral Cord Injury In Rats, 2010/2011   
Masters Degree, Muhammad Danial B. Che Ramli, The effects of supplementation with Evening Primrose Oil (EPO) on peripheral nerve regeneration in rats: Morphometric analysis and immunohistochemistry study., 2010/2011   
Masters Degree, Parastoo Mojtahedzadeh Ardabili, Neuroprotective role of the antioxidant palm vitamin E after spinal cord injury in rats, 2010/2011   
Masters Degree, Muhammad Danial Bin Che Ramli, The Effects of Supplementation with Evening Primrose Oil (EPO) on Peripheral Nerve Regeneration in Rats: Functional Recovery and Morphometric Analysis, 2010/2011   
Masters Degree, Nurul Suraya Binti Mohd Zain, Effects of Evening Primrose Oil (EPO) Supplementation on Changes after Spinal Cord Injury in Rats, 2008/2009

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**Lipoxin A4 and Resolvin D1 Preserve Neural Inductive Capacity of Dental Pulp Stem Cells Cultured under Inflammatory Conditions: Implications for SCI Stem Cell Therapy**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Leslie Morse,***   
Craig Hospital

**CV:**  
34. Danilack V, Stolzmann KL, Gagnon DR, Brown R, Tun C, Morse LR, Garshick E. Associations with Chest Illness and Mortality in Chronic Spinal Cord Injury. J Spinal Cord Med. 2013 Jul 8.   
35. Tan C, Battaglino R, Morse LR. Spinal Cord Injury and Osteoporosis: Causes, Mechanisms, and Rehabilitation Strategies. Int J Phys Med Reb 1:4.   
36. Saltzman J, Battaglino RA, Stott HL, Morse LR. Neurotoxic or Neuroprotective? Current Controversies in SCI-Induced Autoimmunity. Curr Phys Med Rehabil Rep (2013) 1:174–177.   
37. Choi E, Carruthers K, Zhang L, Thomas N, Battaglino RA, Morse LR, Widrick JJ. Concurrent muscle and bone deterioration in a murine model of cancer cachexia. Physiological Reports, 2013 Nov;1(6):e00144.   
38. Ye L, Morse LR, Battaglino RA. Snx10: a newly identified locus associated with human osteopetrosis. IBMS BoneKEy. 2013(10). pii: 421   
39. Doherty A, Battaglino R, Donovan J, Gagnon D, Lazzari A, Garshick E, Zafonte R, Morse LR. Adiponectin is a candidate biomarker of lower extremity bone density in men with chronic spinal cord injury. J Bone Miner Res. 2014 Jan;29(1):251-9.   
40. Maeda Y, Kettner N, Holden J, Lee J, Kim J, Cina S, Malatesta C, Gerber J, McManus C, Im J, Libby A, Mezzacappa P, Morse LR, Park K, Audette J, Tommerdahl M, Napadow V. Functional deficits in carpal tunnel syndrome reflect reorganization of primary somatosensory cortex. Brain. 2014 Apr 16. [Epub ahead of print].   
41. Taylor JA, Picard G, Porter A, Morse LR, Pronovost M, Deley G. Hybrid FES exercise training alters the relationship between spinal cord injury level and aerobic capacity. Arch Phys Med Rehabil. 2014 Aug 21.   
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57. Fang Y, Morse LR, Nguyen N, Tsantes NG, Troy KL. Anthropometric and Biomechanical Characteristics of Body Segments in Persons with Spinal Cord Injury. J Biomech. 2017 Apr 11;55:11-17.   
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59. Carvalho S, Morse LR, Zafonte R, Fregni F. Study adherence in a tDCS longitudinal clinical trial with people with spinal cord injury, Accepted, Spinal Cord.

***Nguyen Nguyen, MPH***  
Craig Hospital

*(no CV uploaded)*

***Yan Xu,***   
Craig Hospital

*(no CV uploaded)*

***Hatice Hasturk,***   
Craig Hospital

*(no CV uploaded)*

***Alp Kantarci,***   
Craig Hospital

*(no CV uploaded)*

***Ricardo Battaglino, PhD***  
Uc Denver

*(no CV uploaded)*

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**The Role of Upper Extremity Surgery in Patients with Tetraplegia**

Wednesday, May 02, 2018 03:25 PM - 04:25 PM

***Peter Rhee, DO, MS***  
Mayo Clinic

**CV:**  
Peter Charles Rhee, D.O., M.S.   
August 24, 2017   
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Cell: 507-250-7441 Mayo Clinic   
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E-mail: rhee.peter@mayo.edu Rochester, MN 55905   
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PRESENT POSITION:   
  
2017 – Present Hand and Microvascular Surgeon   
Mayo Clinic (Rochester, MN)   
Division of Hand Surgery   
Department of Orthopedic Surgery   
  
2017 – Present Associate Professor of Orthopedic Surgery   
Mayo Clinic College of Medicine (Rochester, MN)   
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PREVIOUS POSITION:   
  
2013 – Present Associate Professor of Surgery   
F. Edward Hebert School of Medicine (Bethesda, MD)   
Uniformed Services University of Health Sciences   
Department of Surgery   
  
2015 – 2017 Chief, Hand and Microvascular Surgery   
San Antonio Military Medical Center (Fort Sam Houston, TX)   
  
2013 – 2017 Director, Microvascular Surgery Training Center   
Army Institute of Surgical Research (Fort Sam Houston, TX)   
  
2013 – 2017 Director, Emergency Microvascular Surgery Services   
San Antonio Military Medical Center (Fort Sam Houston, TX)   
Southwest Texas Regional Advisory Council (San Antonio, TX)   
  
2012 - 2013 Assistant Professor of Orthopedic Surgery   
Mayo Clinic School of Graduate Medical Education (Rochester, MN)   
Department of Orthopedic Surgery   
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GENERAL EDUCATION:   
  
2008 – 2012 Mayo Graduate School (Rochester, MN)   
Masters of Biomedical Science (M.S.) – Orthopedic Surgery   
  
2003 – 2007 Kirksville College of Osteopathic Medicine (Kirksville, MO)   
Doctor of Osteopathic Medicine (D.O.)   
Valedictorian   
  
1999 – 2003 Grinnell College (Grinnell, IA)   
Bachelor of Arts (B.A.)   
Major in Biology   
  
1995 – 1999 Seton Catholic High School (Chandler, AZ)   
High School Diploma   
  
  
  
  
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POST-GRADUATE MEDICAL EDUCATION:   
  
2012 – 2013 Mayo School of Graduate Medical Education (Rochester, MN)   
Hand and Microvascular Surgery Fellowship   
Division of Hand and Microvascular Surgery   
  
2008 – 2012 Mayo School of Graduate Medical Education (Rochester, MN)   
Orthopedic Surgery Residency   
Department of Orthopedic Surgery   
  
2007 – 2008 Mayo School of Graduate Medical Education (Rochester, MN)   
Internship   
Department of Orthopedic Surgery   
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BOARD CERTIFICATIONS:   
  
2016 - Present Certificate of Added Qualification, Hand Surgery   
  
2012 - Present American Board of Orthopedic Surgery   
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MEDICAL LICENSURE:   
  
2009 – Present Medical License, Minnesota (Active)   
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HONORS/AWARDS:   
  
National/International   
Lean and Green Award – American Association for Surgery of the Hand (AAHS)   
Awarded to a deserving association member who has decreased the amount of waste generated by hand surgery and decreased total costs related to hand surgery as a result.   
Sumner-Koch Award – American Society for Surgery of the Hand (ASSH) and Chicago Society for Surgery of the Hand (CSSH). Presented to the research paper that has the potential for the greatest clinical impact, as judged by the membership of the Chicago Society for Surgery of the Hand, 2017   
Meritorious Service Medal – President of the United States of American   
For admirable service as a hand surgeon while serving in the United States Air Force. Specifically for instituting a microvascular surgery service at the San Antonio Military Medical Center, creating a wide-awake hand surgery practice that increased hand surgery volume by 10%, and for performing the first successful free tissue transfer in an austere environment (Bagram Air Base, Afghanistan) while supporting U.S. and NATO forces in Operation Resolute Support and Operation Freedom’s Sentinel.   
Best Papers – American Society for Surgery of the Hand (ASSH) Annual Meeting.   
Manuscript on “Cost Savings, Safety, and Patient Satisfaction of a Wide-Awake Hand Surgery Program at a Military Medical Center: A Critical Analysis of the First 100 Procedures” was selected as the top 4 papers of the 71st Annual Meeting of the ASSH, 2016.   
American Orthopedic Association (AOA) - Emerging Leaders Program (ELP).   
Selected to participate in the AOA-ELP which delivers a continuum of learning for developing orthopaedic leaders, 2014.   
Clinician Scientist Development Program.   
Awarded through the American Society for Surgery of the Hand (ASSH) to attend the American Academy of Orthopedic Surgery (AAOS), Orthopedic Research and Education Foundation (OREF), and the Orthopedic Research Society (ORS) intensive training program to prepare participants to develop into orthopedic clinician scientists, 2014.   
Young Leaders Program (ASSH).   
Awarded to enthusiastic and dedicated young members to increase their involvement in the governance of the ASSH, 2014.   
ASSH Military Education Grant. Awarded to fund travel to the annual ASSH meeting, 2014-2016.   
ASSH Resident Education Grant. To fund travel to the annual ASSH meeting, 2011.   
Cambridge Who’s Who among Executives, Professionals, and Entrepreneur’s. August 2008   
Who’s Who among American Universities and Colleges. 2007   
Marvin & Kathleen Teget Leadership Scholarship. Leadership in pursuing a specialty career, 2006   
Chancellor’s List®. Positive academic achievement in graduate level students, 2006   
  
Regional   
Mid-America Orthopedic Association (MAOA) New in Practice Educational Grant. To fund travel to the annual meeting. 2015.   
Physician in Training Award Finalist. Top paper at the Mid-American Orthopedic Association annual meeting. Bonita Springs, FL.   
2012.   
Mid-America Orthopedic Association Education Grant. To fund travel to the annual MAOA meeting. 2011   
Best Poster Award. Mid-America Orthopedic Association (MAOA). Austin, TX. April 24, 2010.   
Physician in Training Award Finalist. Top paper at the MAOA annual meeting. Austin, TX. 2010.   
  
San Antonio Uniformed Services Health Education Consortium (SAUSHEC)   
Warren R. Kadrmas Award for Excellence in Teaching. Voted teacher and mentor of the year by the graduating orthopedic surgery chief resident class, 2015.   
  
Mayo School of Graduate Medical Education   
Alice D. Jensen Fellowship in Hand Surgery. Awarded for achievements in advancing the art and science of hand surgery through clinical research and fellowship activities.   
Patrick J. Kelly, M.D. Outstanding Basic Science Research Award. Awarded to an orthopedic surgery resident or fellow every 2 years with the highest rated basic science research study, preferably a study as a result from a masters in biomedical sciences. October 2012.   
Joseph M. Janes, M.D. Humanitarian Award. Awarded to an outstanding physician and surgeon   
recognized by his peers to possess qualities of: compassion for his patients, competence as a   
surgeon, and devotion to orthopedic surgery. June 1, 2012.   
Outstanding Resident Achievement Award, Knowledge in Orthopedic Surgery. Awarded to the   
Orthopedic chief resident with the highest cumulative orthopedic in-training examination (OITE) scores. June 1, 2012.   
Mayo Orthopedic Trauma Program, Resident of the Year. Given to the orthopedic chief resident who has displayed competence, compassion, and promoted resident education throughout their orthopedic trauma rotations. June 1, 2012.   
Kelly Award Finalist. Top rated paper from an orthopedic residency. 2010.   
Coventry Award Participant. Best department orthopedic paper annually. 2009 and 2010.   
Mayo Intl. Health Program Scholarship. For a pediatric orthopedic mission trip with Cure International, May 2008.   
  
Kirksville College of Osteopathic Medicine   
Stewart Award. Valedictorian of the Kirksville College of Osteopathic Medicine Class of 2007   
Teva Pharmaceuticals. Highest GPA in the study of Pharmacology, 2007   
President Service Award, Sigma Sigma Phi National Osteopathic Honors Society. 2007   
Snyder-Crummy Anatomy Award. Highest GPA in the anatomy courses, 2005   
D.O. Day on the Hill Scholarship. To lobby for medical reform in Washington D.C., 2005   
Isabelle and Josephine Morelock Scholarship. For academic excellence, 2005   
  
Grinnell College   
Dean’s List. Spring 2000, Spring 2003.   
NCAA Academic All-Midwest Conference Linebacker. Fall ’00, Fall ’01, and Fall ’02.   
Louis J. Gonias ’42 Scholarship. To scholar-athletes who demonstrate leadership, 1999,’00, ’01.   
  
Seton Catholic H.S.   
Arizona Coca-Cola Scholar Athlete of the Year. Spring 1999   
Eagle Scout-Boy Scouts of America. Spring 1998   
Arizona All-State Center, Football. Fall 1998.   
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MILITARY SERVICE:   
  
2003 – 2017 United States Air Force. Major, Medical Corp. (Active duty)   
  
Deployment History   
Jan – April 2017 Chief of Orthopedic Surgery, Craig Joint Theater Hospital, Bagram, Afghanistan   
May 2016 Orthopedic Surgery Mission Commander. Rio San Juan, Dominican Republic.   
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PROFESSIONAL SERVICE:   
  
National/International   
2017 – Present Chair. Military relations committee (ASSH)   
2017 – Present Committee Member. Practice division committee (ASSH)   
2017 – Present Faculty. AOTrauma International   
2016 – Present Committee Member. Self-Assessment Examination Committee (ASSH)   
2016 – Present Faculty. AOTrauma Hand North America   
2015 - Present Section Editor. Maintenance of Certification Task Force, Arthroscopy Association of North America (AANA) and the American Shoulder and Elbow Society (ASES).   
2016 – Present Committee Member. Annual Meeting Program committee (AAHS)   
2015 – Present Committee Member. Publications and products advisory committee (ASSH)   
2015 – Present Committee Member. Resident education committee (ASSH)   
2015 – Present Committee Member. Courses and meetings advisory committee (ASSH)   
2015 – Present Consultant reviewer. Journal of the AAOS   
2015 – 2016 Faculty. Maintenance of Certification Task Force, Arthroscopy Association of North America (AANA) and the American Shoulder and Elbow Society (ASES).   
2014 – Present Editorial Board Member. American Journal of Orthopedics   
2014 – Present Committee Member. Adrian Flatt Resident/Fellows Conference committee (ASSH)   
2014 – Present Faculty. National Board of Osteopathic Medical Examiners   
2014 – Present Consultant reviewer. Journal of Hand Surgery (American)   
2014 – Present Consultant reviewer. Hand   
2013 – 2017 Committee Member. Military relations committee (ASSH)   
2011 – 2014 Resident advisory committee member. American Journal of Orthopedic Surgery   
2011 – Present Peer reviewer. Biomed Central.   
2009 – Present Peer reviewer. Journal of Clinical Biomechanics.   
  
Regional/Local   
2007 – Present Mentor. American Osteopathic Association   
2007 - Present Alumni Ambassador. Kirksville College of Osteopathic Medicine Admissions   
2004 – 2005 President. Sigma Sigma Phi National Osteopathic Honors Society   
2004 – 2005 Vice President. Theta Psi Osteopathic Fraternity   
2004 – 2005 Coordinator. Asclepius Society for Medical Arts and Humanism   
2004 – 2005 Air Force Liaison. American Military Osteopathic Physicians & Surgeons   
2003 – 2005 Academic Tutor. Kirksville College of Osteopathic Medicine   
1997 – 2002 Board of Directors. Arizona Hugh O’Brian Youth Leadership Foundation (HOBY)   
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PROFESSIONAL MEMBERSHIPS AND SOCIETIES:   
  
2016 – Present Member. American Society of Reconstructive Microsurgeons (ASRM)   
2015 – Present Diplomat. American Board of Orthopedic Surgery (ABOS)   
2013 – Present Member. San Antonio Orthopedic Association (SAOA)   
2012 – Present Member. Mayo Clinic Hand Club   
2012 – Present Member. American Association for Hand Surgery (AAHS)   
2011 – Present Member. American Society for Surgery of the Hand (ASSH)   
2011 – Present Member. Mid-America Orthopedic Association (MAOA)   
2009 – Present Member. Society of Military Orthopedic Surgeons (SOMOS)   
2007 – Present Fellow. American Academy of Orthopedic Surgery (AAOS)   
2007 – Present Member. Mayo Fellows Association (MFA)   
2007 – Present Member. American Medical Association (AMA)   
2007 – Present Member. Kirksville College of Osteopathic Medicine Alumni Association (KOAA)   
2003 – Present Member. American Osteopathic Association (AOA)   
2004 – Present Member. Sigma Sigma Phi National Osteopathic Honors Society (SSP)   
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EDUCATIONAL ACTIVITIES:   
  
Curriculum/Course Development   
  
Graduate Medical Education (Regional/Local)   
1. Microvascular Surgery Skills Course. Fall 2013 to present. San Antonio Military Medical Center, Orthopedic Surgery Residency. San Antonio, TX. Organized quarterly microvascular skills course with the use of latex vessels and rat femoral artery and vein anastomoses techniques (8 learners, quarterly).   
  
2. Hand Surgery Review Course – Orthopedic In-training Examination (OITE). Fall 2012. Mayo Clinic Orthopedic Surgery Residency. Rochester, MN. Organized a weekly review course for orthopedic surgery residents in preparation for the annual OITE, specifically pertaining to the field of hand surgery (50 learners).   
  
3. Orthopedic in-training examination monthly review. Winter 2011 to Winter 2012. Mayo Graduate School of Medical Education. Organized the curriculum for monthly review classes in preparation for the annual OITE for the entire orthopedic surgery residency (50 learners).   
  
4. EnhanceMed Hybrid Skills course. August 18, 2009. Mayo Graduate School of Medical Education. Revised the orthopedic course for the EnhanceMed organization to provide all moonlighting residents/fellows a review of common musculoskeletal injuries and management recommendations (100 learners).   
  
Continuing Medical Education (National/International)   
  
1. Magnetic Resonance Imaging of the Hand and Wrist: What Are We Looking At. September 29, 2016. 71st Annual Meeting of the American Society for Surgery of the Hand. Austin, TX. Developed and moderated an instructional course lecture regarding fundamentals of MRI with review of applications in various pathologies within the hand and wrist (100 learners). Instructional Course Lecture #11.   
  
2. How to Survive Your Worst Night of Hand Call. September 30, 2016. 71st Annual Meeting of the American Society for Surgery of the Hand. Austin, TX. Developed and moderated an instructional course lecture regarding the acute management of the mangled upper extremity (150 learners). Instructional Course Lecture #19.   
  
3. Management of the Dusted Distal Radius: Advanced Surgical Techniques. September 29, 2016. 71st Annual Meeting of the American Society for Surgery of the Hand. Austin, TX. Developed and moderated an instructional course lecture on the evaluation and management of complex distal radius fractures (300 learners). Instructional Course Lecture #28.   
  
4. Wide-Awake Approach to Hand Surgery: How to Apply it to Your Practice. September 29, 2016. 71st Annual Meeting of the American Society for Surgery of the Hand. Austin, TX. Developed and moderated an instructional course lecture on the how to implement wide-awake hand surgery into various practice environments (200 learners). Instructional Course Lecture #44.   
  
5. Management of High-Energy Soft Tissue Injuries of the Hand: Surgical Pearls and Lessons Learned from the Battlefield. September 12, 2015. 70th Annual Meeting of the American Society for Surgery of the Hand. Boston, MA. Case based symposium reviewing the technique and surgical pearls for soft tissue coverage of the hand (400 learners). Symposia #13.   
  
6. Management of High-Energy Soft Tissue Injuries of the Hand: Surgical Pearls and Lessons Learned from the Battlefield. September 19, 2014. 69th Annual Meeting of the American Society for Surgery of the Hand. Boston, MA. Case based symposium reviewing the technique and surgical pearls for soft tissue coverage of the hand (400 learners). Symposia #4027.   
  
Continuing Medical Education (Regional/Local)   
  
1. Hand Flaps and Small Joint Arthroplasty. Course Director. August 30, 2016. San Antonio, TX. Didactic and practical skills course reviewing intrinsic hand flaps and small joint arthroplasty of the fingers and distal radioulnar joints (25 learners).   
  
2. Complex Wrist Fractures Course. Course Director. August 16, 2014. Spring Branch, TX. Didactic course covering the evaluation and surgical treatment of complex wrist fractures and the management of complications. Bioskills course including sawbones implant instrumentation and cadaver surgical approaches (50 learners).   
  
3. Difficult Wrist Fractures Course. Course Director. May 10, 2014. San Antonio, TX. Didactic and bioskills course covering the evaluation and surgical treatment of complex wrist fractures utilizing volar locking plates, fragments specific fixation, and temporary external or internal distraction stabilization (40 learners).   
  
  
Teaching Activities   
  
Graduate Medical Education (Regional/Local)   
  
1. Physical Examination of the Hand, Wrist, and Elbow. September 29, 2016. Orthopedic surgery residency curriculum. San Antonio, TX. Reviewed the rationale and technique of various upper extremity examination maneuvers (30 learners).   
  
2. Management of Extensor Tendon Injuries. August 18, 2016. Orthopedic surgery residency curriculum. San Antonio, TX. Reviewed hand and wrist extensor tendon anatomy and discussed the management of acute and chronic extensor tendon injuries (30 learners).   
  
3. Arthroscopy of the Hand and Wrist. June 13, 2016. Orthopedic surgery residency curriculum. San Antonio, TX. Discussed the indications and technique of wrist and hand arthroscopy (30 learners).   
  
4. Soft Tissue Coverage in Orthopedic Surgery. January 25, 2016. Orthopedic surgery residency curriculum. San Antonio, TX. Discussed the concept of the reconstructive ladder and elevator with case based presentation on the algorithm to treatment of soft tissue injuries (30 learners).   
  
5. Traumatic Brachial Plexus Injuries. June 15, 2015. Orthopedic surgery residency curriculum. San Antonio, TX. Discussed the evaluation and treatment methods of traumatic brachial plexus injuries (30 learners).   
  
6. Carpal Instability. June 2, 2015. San Antonio, TX. US Army/Air force occupational therapy upper extremity course. Discussed the evaluation and treatment methods of traumatic brachial plexus injuries (20 learners).   
  
7. Peripheral Nerve Injuries. June 2, 2013. San Antonio, TX. US Army/Air force occupational therapy upper extremity course. Discussed the evaluation and treatment methods of traumatic brachial plexus injuries (20 learners).   
  
8. Upper Extremity Compression Neuropathies. September 9, 2013. San Antonio, TX. US Army/Air force occupational therapy upper extremity course. Discussed the evaluation and treatment methods of traumatic brachial plexus injuries (20 learners).   
  
9. Physical Examination of the Hand, Wrist, and Elbow. July 14, 2014. Orthopedic surgery residency curriculum. San Antonio, TX. Reviewed the proper technique for physical examination of the upper extremity (50 learners).   
  
10. Congenital Hand Anomalies. May 12, 2014. Orthopedic surgery residency curriculum. San Antonio, TX. Discussed the embryology of hand develop, common congenital hand anomalies, and basis methods of evaluation and treatment (50 learners).   
  
11. Management of Hand Osteoarthritis. April 24, 2014. Orthopedic surgery residency curriculum. San Antonio, TX. Discussed the epidemiology, evaluation, and non-operative/operative treatment of hand osteoarthritis (50 learners).   
  
12. Brachial Plexus Injuries. September 9, 2013. San Antonio, TX. US Army/Air force occupational therapy upper extremity course. Discussed the evaluation and treatment methods of traumatic brachial plexus injuries (20 learners).   
  
13. Hand and wrist anatomy. September 9, 2013. San Antonio, TX. US Army/Air force occupational therapy upper extremity course. Discussed the carpal and distal radius anatomy (20 learners).   
  
14. The road to residency: Tips and pearls to succeed. July 26, 2013 and February 24, 2012. Kirksville College of Osteopathic Medicine. Kirksville, MO. Presented personal reflections on how to succeed in medical school and how to obtain a position at a top residency program. This presentation was presented to the first and second year students, with tips on how to study for USMLE Step I and how to behave on audition rotations (200 learners).   
  
15. Associated Ulnar Styloid Fractures with Distal Radius Fractures. October 26, 2012. Mayo Clinic Hand Surgery Conference. Rochester, MN. Presented an evidence based medicine review of the management options of ulnar styloid fractures (40 learners).   
  
16. Cubital Tunnel Syndrome: An Evidence Based Medicine Approach. September 21, 2012. Mayo Clinic Hand Surgery Conference. Rochester, MN. Presented an evidence based medicine review of the various operative treatment modalities for cubital tunnel syndrome (40 learners).   
  
17. Screw Fixation of Syndesmotic Disruption: Evidence Based Medicine Approach. May 22, 2012. Mayo Clinic Foot and Ankle Surgery Conference. Rochester, MN. Illustrated the anatomy of the ankle syndesomsis, pathophysiology of syndesmotic injuries, and an evidence based medicine approach to treatment based upon a thorough literature review (30 learners).   
  
18. Subtrochanteric proximal femur fractures: Operative tips and tricks. December 8, 2011. Orthopedic trauma lecture series. Rochester, MN. Discussed the evolution of operative treatment modalities for subtrochanteric proximal femur fractures. Presented common errors in treatment with an intramedullary nail and methods to prevent these errors (20 learners).   
  
19. Orthopedic In-training examination review: Hand. November 7, 2011. Orthopedic in-training examination review monthly lecture series. Rochester, MN. Provided a review of commonly tested topics in hand surgery. Review of various finger, wrist, and elbow conditions and treatment options in conjunction with a comprehensive quiz (60 learners).   
  
20. Patella fractures: Diagnosis and treatment. November 2, 2011. Orthopedic trauma lecture series. Rochester, MN. Presented a classification of patella fractures with evidence-based operative treatment algorithm (20 learners).   
  
21. Traction-internal rotation views for diagnosis of femoral neck fractures. June 7, 2011. Orthopedic trauma lecture series. Rochester, MN. Presented the utility of traction-internal rotation views in determining an accurate assessment of femoral neck fractures and how this can affect treatment options (20 learners).   
  
22. Proximal humerus fractures: Operative versus non-operative treatment. June 2, 2011. Orthopedic trauma lecture series. Rochester, MN. Debated on the benefits of non-operative management for proximal humerus fractures in comparison to operative treatment weighing (20 learners).   
  
23. Operative use of antibiotic cement beads in orthopedic trauma. May 19, 2011. Orthopedic trauma lecture series. Rochester, MN. Presented the many uses of antibiotic impregnated cement in orthopedic trauma. Also provided common antibiotics and dosages when utilized in this manner (20 learners).   
  
24. Proximal 1/3rd tibial fractures: Plating verus intramedullary nail fixation. May 5, 2011. Orthopedic trauma lecture series. Rochester, MN. Debated on the benefits of plate fixation for proximal 1/3rd tibial fractures in comparison to intramedullary nail fixation (20 learners).   
  
25. Distal femur fractures: Operative Tips and Tricks. April 22, 2011. Orthopedic trauma lecture series. Rochester, MN. Discussed the surgical approach and reduction maneuvers to for distal femur periarticular plate fixation (20 learners).   
  
26. Delta screw versus RetroScrew tibial fixation system for soft tissue graft ACL reconstruction in an osteoporotic model. November 19, 2010. Kelly Award Finalist Presentation. Rochester, MN. Discussed the results of a biomechanical comparison of two tibial fixation devices for ACL soft tissue graft reconstruction in patients with poor bone mineral density (100 learners).   
  
27. Pediatric orthopedic case presentations. November 19, 2010. Mayo Minnesota Pediatric Orthopedic Symposium. Rochester, MN. Provided case vignettes for a panel discussion on diagnosis and management of common pediatric orthopedic surgery issues. Presented with direction from visiting professor Jim Beaty, MD (200 learners).   
  
28. Athletic injuries of the hand and wrist: Diagnosis and treatment. September 23, 2010. Mayo Clinic Multidisciplinary Sports Medicine Grand Rounds. Jacksonville, FL. Presented the clinical findings, dilemmas in diagnosis, and evidenced-based review of the operative and non-operative treatment of common athletic injuries to the hand and wrist (50 learners).   
  
29. Biomechanical advantage of dual tibial fixation with the RetroScrew system for soft tissue anterior cruciate ligament reconstruction in osteoporotic bone. January 27, 2010. Mayo Clinic Biomechanics Conference. Rochester, MN. Presented a literature review of bone density loss about the knee after an injury to the anterior cruciate ligament (ACL) and clinical concerns for ACL reconstruction. Also, discussed the preliminary biomechanical study results from a current ACL fixation study completed at the Mayo Clinic Biomechanics Lab (100 learners).   
  
30. Acute scaphoid fractures: Epidemiology, diagnosis, and treatment. January 15, 2010. Mayo Graduate School of Medical Education. Division of Hand and Microvascular Surgery. Rochester, MN. Presented the epidemiology, clinical findings, and evidence-based review of non-operative and operative treatment of acute scaphoid fractures (50 learners).   
  
31. Pediatric orthopedic surgery in the Dominican Republic. August 28, 2009. Mayo Clinic International Health Lecture Series. Rochester, MN. Presented on the benefits of participating in the Mayo International Health Program (MIHP) by illustrating my experiences in Santo Domingo, Dominican Republic performing pediatric orthopedic surgery mission work (60 learners).   
  
Continuing Medical Education (National/International)   
  
1. Upper Extremity Seminar: Volar Locking Plate Fixation - Indications and Limitations. December 10, 2016. Scottsdale, AZ. Discussed the rationale for utilizing volar locking plate in the treatment of distal radius fractures. Provided technical pearls regarding the use of volar locking plates and the limitations of this implant (Learners 100).   
  
2. Upper Extremity Seminar: Fragment Specific Fixation – After the Approaches are Done. December 10, 2016. Scottsdale, AZ. Reviewed a stepwise algorithm to reconstructing multifragmentary distal radius fractures with fragment-specific fixation. (Learners 100).   
  
  
3. Upper Extremity Seminar: The Bridge Plate and it’s Role in Distal Radius Fractures. December 10, 2016. Scottsdale, AZ. Evaluated the biomechanics of distraction bridge plate fixation and the benefit of utilizing this fixation method for complex distal radius fractures. (Learners 100).   
  
4. Upper Extremity Seminar: Four Corner Arthrodesis – Where’s the Science? December 10, 2016. Scottsdale, AZ. Discussed the rationale for four corner arthrodesis in the treatment of scapholunate and scaphoid nonunion advanced collapse. Provided technical pearls and evidence based practices in performing this procedure (Learners 100).   
  
5. Upper Extremity Seminar: Limitations of Volar Locking Plate Fixation. August 6, 2016. Lake Tahoe, CA. Discussed the rationale for utilizing volar locking plate in the treatment of distal radius fractures. Provided technical pearls regarding the use of volar locking plates and the limitations of this implant (Learners 30).   
  
6. Upper Extremity Seminar: Role of Distraction Bridge Plating for the Dusted Distal Radius Fracture. Lake Tahoe, CA. August 6, 2016. Discussed the role and indications for distraction bridge plate fixation in the management of complex distal radius fractures. (Learners 30).   
  
7. Management of the Mangled Upper Extremity: Bone, Vascular, and Soft Tissue Injuries. March 1, 2016. AAOS Annual Meeting. Orlando, FL. Didactic lecture on the evaluation and management of the mangled upper extremity (80 learners).   
  
8. Upper Extremity Seminar: Limited Wrist Arthrodesis – Technique and Pearls. January 25, 2016. Amelia Island, FL. Discussed the rationale for scaphocapitate, and four corner arthrodesis and imparted technical pearls (Learners 100).   
  
9. Upper Extremity Session Moderator. December 10, 2015. SOMOS Annual Meeting. Tampa, FL. Served as the moderator for the upper extremity scientific session (100 learners).   
  
10. Upper Extremity Seminar: Limitations of Volar Locking Plate Fixation. October 23, 2015. Fort Lauderdale, FL. Discussed the rationale for utilizing volar locking plate in the treatment of distal radius fractures. Provided technical pearls regarding the use of volar locking plates and the limitations of this implant (Learners 75).   
  
11. Upper Extremity Seminar: Four Corner Arthrodesis – Where’s the Science. October 23, 2015. Fort Lauderdale, FL. Discussed the rationale for four corner arthrodesis in the treatment of scapholunate and scaphoid nonunion advanced collapse. Provided technical pearls and evidence based practices in performing this procedure (Learners 75).   
  
12. Management of Segmental Tissue Loss in the Upper Extremity: Lessons Learned from the Battlefield. September 11, 2015. 70th Annual meeting of the American Society for Surgery of the Hand. Seattle, WA. Discussed the non-vascularized methods to treat segmental bone loss in the upper extremity. Provided technical pearls in acute limb shortening, non-vascularized bone grafting, and utilization of an induced membrane for staged bone grafting (Learners 100).   
  
13. Management of the Mangled Upper Extremity: Lessons Learned from the Battlefield.   
April 18, 2015. American Osteopathic Association of Orthopedic Surgery Post-Graduate Seminar. Amelia Island, FL. Didactic lecture on the evaluation and management of the mangled upper extremity (100 learners).   
  
14. Management of the Mangled Upper Extremity: Bone, Vascular, and Soft Tissue Injuries. March 26, 2015. AAOS Annual Meeting. Las Vegas, NV. Didactic lecture on the evaluation and management of the mangled upper extremity (100 learners).   
  
Continuing Medical Education (Regional/Local)   
  
1. Upper Extremity Flap Course. Faculty. February 27, 2016. Spring Branch, TX. Didactic and practical skills course reviewing common free tissue flap harvesting techniques and surgical exposures to the upper extremity (20 learners).   
  
2. Upper Extremity Flap Course. Faculty. February 14, 2015. Spring Branch, TX. Didactic and practical skills course reviewing common free tissue flap harvesting techniques and surgical exposures to the upper extremity (30 learners).   
  
3. Common Hand and Wrist Conditions: Evaluation, Management, and Injection Techniques. May 1, 2015. San Antonio Military Medical Center, Fort Sam Houston, TX. Primary care grand rounds lecture on the evaluation and management of common hand and wrist conditions (100 learners).   
  
4. Common Hand and Wrist Conditions: Evaluation, Management, and Injection Techniques. March 5, 2015. Lackland AFB, TX. Primary care grand rounds lecture on the evaluation and management of common hand and wrist conditions (50 learners).   
  
5. Emergency War Surgery Course. May 2014. Lackland AFB, TX. Instructed orthopedic and general surgeons on the techniques for upper and lower extremity fasciotomies and external fixation on cadaveric specimens (30 learenrs).   
  
Mentorship   
1. Brad Hyatt, MD. Orthopedic Surgery Resident at the San Antonio Uniformed Services Health Education Consortium (SAUSHEC). 2013 – Present. Mentored Dr. Hyatt with 1 peer-reviewed publication, 2 ongoing hand surgery research studies, candidate membership into the ASSH, successful matriculation into the Hand Center of San Antonio Hand Surgery Fellowship Program, and future appointment at the Walter Reed National Military Medical Center as a hand and microvascular surgeon.   
  
2. Benjamin Plucknette, DO. Orthopedic Surgery Resident (SAUSHEC. 2013 – Present. Mentored Dr. Plucknette through 2 ongoing hand surgery research studies, candidate membership with the ASSH, successful matriculation into the Philadelphia Hand Center Hand Surgery Fellowship Program.   
  
3. Ian Mullikin, MD. Orthopedic Surgery Resident (SAUSHEC. 2013 – Present. Mentored Dr. Mullikin into candidate membership with the ASSH, 1 ongoing hand surgery research study, and current application to hand surgery fellowships.   
  
Academic Career Development   
1. 49th Annual AAOS Orthopedic Educators Course. Rosemont, IL. November 6-10. Extensive course discussing various teaching philosophies, methods of teaching in the clinic and operating room, trainee selection, managing difficult trainees, curriculum development, and mentorship.   
  
2. New Faculty Education Course. San Antonio Uniformed Services Health Education Consortium. October 2013. 3 day course discussing teaching philosophy, career development, and mentorship.   
  
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INTRAMURAL/DEPARTMENTAL/INSTITUTIONAL ACTIVITIES:   
  
Departmental   
  
San Antonio Military Medical Center, Fort Sam Houston, TX   
2015 – Present Residency Review Committee. Hand surgery representative in evaluating the orthopedic surgery residency curriculum and ACGME surveys.   
2014 – Present Clinical Competency Committee. Reviewed orthopedic surgery resident performance and developed remediation plans for struggling residents.   
  
Mayo Clinic, Rochester, MN   
2009 – 2013 Mayo Graduate Education Committee (GEC) for Surgical Subspecialities. 2009 to present. Resident member on the GEC committee to provide a trainee’s point of view on how to improve surgical residency/fellowship education.   
  
2012 - 2013 Mayo Clinic Department of Orthopedic Surgery Education Committee.   
Hand surgery fellow member on the orthopedic surgery education committee to discuss methods to improve the Mayo Clinic orthopedic surgery residency program and the fellowship programs within the department of orthopedic surgery.   
  
2012 – 2013 Mayo Clinic Department of Orthopedic Surgery Practice Committee. 2012. Chief resident member of the departmental practice committee to review and update the practice policies of orthopedic consultants, resident/fellows, and ancillary staff members.   
  
2009 – 2012 Reviewer. Mayo Clinic Orthopedic Research Review Committee   
  
2012 Administrative Orthopedic Chief Resident. Responsible for constructing the Spring orthopedic call schedule and to serve as a liaison between the orthopedic department and nursing staff with orthopedic trainees.   
  
Fall 2011 Saint Mary’s Hospital Resident Liaison. To ensure proper communication and resolution of conflict between orthopedic nursing staff and orthopedic trainees.   
  
Institutional   
  
San Antonio Military Medical Center, Fort Sam Houston, TX   
2014 – 2015 Element Leader. Point of contact for all United States Air Force personnel within the Orthopedic Surgery division, as part of the 959th Medical Operations Squadron.   
  
2013 - Present Team STEPPS Advisory Committee. Constructed and implemented Team STEPPS to the operating room daily protocol.   
  
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COURSES ATTENDED:   
  
Oct. 2016 Advanced Techniques in Peripheral Nerve Surgery (Axogen). Nashville, TN.   
Sept. 2015 Ultrasound in the Upper Extremity, Seattle, WA.   
July 2014 Expeditionary Medical Support Course, Camp Bullis, TX.   
May 2014 Emergency War Surgery Course, Lackland AFB, TX.   
May 2014 Advanced Surgical Skills for Exposure in Trauma (ASSET), Lackland AFB, TX.   
Dec. 2012 Disaster response course (SOMOS/AAOS). Naples, FL.   
Nov. 2012 AO advanced trauma course (AO). Toronto, ON   
Jan. 2012 Advanced wrist and hand fixation seminar (TriMed). Las Vegas, NV.   
Jan. 2012 Comprehensive hand review course (AAHS). Las Vegas, NV.   
Jan. 2012 Update on flexor tendon injury management (AAHS). Las Vegas, NV.   
Jan. 2012 Local flaps for finger defects (AAHS). Las Vegas, NV.   
Jan. 2012 Regional pedicled flaps for emergency coverage of hand wounds (AAHS). Las Vegas, NV.   
Sept. 2011 Scaphoid fractures and non-unions (ASSH). Las Vegas, NV.   
June 2011 Advanced hand and wrist fracture course (Synthes). St. Paul, MN   
April 2011 Back to the basics: Hip and knee arthroplasty course (MAOA). Tucson, AZ.   
Aug. 2010 Minimally invasive percutaneous osteosynthesis (Stryker). Fort Lauderdale, FL   
March 2010 Orthopedic review course (AAOS). New Orleans, LA   
March 2010 Athletic injuries of the hand (AAOS). New Orleans, LA   
March 2010 10 most common upper extremity surgeries (AAOS). New Orleans, LA   
March 2010 What every resident should know about distal radius fractures (AAOS). New Orleans, LA   
Dec. 2009 Combat extremity trauma course (SOMOS). Honolulu, HI.   
Dec. 2008 Microvascular surgery course. Rochester, MN.   
Dec. 2008 Prosthetics and orthotics course. Rochester, MN.   
Sept. 2008 Basics in Arthroplasty (DePuy). San Diego, CA.   
Aug. 2008 AO Basic Fracture Course. Madison, WI.   
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PRESENTATIONS:   
  
1. Rhee PC, Rhee LS, Fischer M, McMillan H, Johnson AE. Cost Savings, Safety, and Patient Satisfaction for Wide-Awake Hand Surgery at a Military Medical Center: Critical Analysis of the First 100 Procedures. 71st Annual Meeting for the American Society for Surgery of the Hand. Austin, TX. September 29, 2016.   
  
2. Rhee PC, Carlsen B, Shin AY. Trapeziectomy and thumb suspensionplasty or ligament reconstruction, tendon interposition in patient younger than 55. 71st Annual Meeting for the American Society for Surgery of the Hand. Austin, TX. September 30, 2016.   
  
3. Rhee PC, Rhee LS, Fischer M, McMillan H, Johnson AE. Cost Savings, Safety, and Patient Satisfaction for Wide-Awake Hand Surgery at a Military Medical Center: Critical Analysis of the First 100 Procedures. 57th Annual meeting for the Society of Military Orthopedic Surgeons. St. Petersburg, FL. December 11, 2015.   
  
4. Rhee PC, Lin I, Moran S, Shin A, and Bishop A. Scaphocapitate Fusion in the Management of Kienbock’s Disease. Annual Meeting for the American Academy of Orthopedic Surgeons. New Orleans, LO. March 11-15, 2014.   
  
5. Rhee PC, Jones DB, Moran S, and Shin A. The Affect of Lunate Morphology in Kienbock’s Disease. Mid-America Orthopedic Association Annual Meeting. San Antonio, TX. April 24, 2014.   
  
6. Rhee PC, Jones DB, Moran S, and Shin A. The Affect of Lunate Morphology in Kienbock’s Disease. Annual Meeting for the American Association for Hand Surgery. Kauai, HI. January 9, 2014   
  
7. Rhee PC, Becker HA, Torchia ME, Shin AY. Minimally Invasive Insertion and Rigid Fixation for Mid-Diaphyseal Clavicle Fractures. 68th Annual Meeting for the American Society for Surgery of the Hand. San Francisco, CA. October 3-5, 2013.   
  
8. Rhee PC, Lin I, Moran S, Shin A, and Bishop A. Scaphocapitate Fusion in the Management of Kienbock’s Disease. 68th Annual Meeting for the American Society for Surgery of the Hand. San Francisco, CA. October 3-5, 2013.   
  
9. Rhee PC, Jones DB, Moran S, and Shin A. The Affect of lunate Morphology in Kienbock’s Disease. International Wrist Investigators Workshop. San Francisco, CA. October 2, 2013.   
  
10. Rhee PC and Moran SL. Treatment of Distal Radius Fractures with a Novel Intra-Medullary Cage Device: Early Clinical and Radiographic Results. International Wrist Investigators Workshop. San Francisco, CA. October 2, 2013.   
  
11. Rhee PC, Becker HA, Torchia ME, Shin AY. Minimally Invasive Insertion and Rigid Fixation for Mid-Diaphyseal Clavicle Fractures. Mid-America Orthopedic Association Annual Meeting. Amelia Island, FL. April 19, 2012.   
  
12. Rhee PC and Shin AY. Minimally Invasive Insertion and Rigid Fixation for Distal Radius Fractures. Mid-America Orthopedic Association Annual Meeting. Amelia Island, FL. April 18, 2013.   
  
13. Rhee PC, Stuart M, Levy B, Holmes D, and Dahm D. A Translational Method to Assess Tibial Tunnel Volumetric Bone Mineral Density In Vitro and In Vivo. Mid-America Orthopedic Association Annual Meeting. Amelia Island, FL. April 18, 2013.   
  
14. Glazebrook KN, Brewerton LJ, Leng S, Carter RE, Rhee PC, Murthy NS, Howe BM, Ringler MD, Dahm DL, Stuart MJ, McCollough CH, Fletcher JG. Dual Energy Computed Tomography for Evaluation of Anterior Cruciate Ligament Tear: Performance Comparison between Senior Level Resident and Subspecialty Trained Musculoskeletal Radiologist. 113th Annual meeting for the American Roentgen Ray Society. Washington D.C.. April 14, 2013.   
  
15. Rhee PC, Lin I, Moran S, Shin A, and Bishop A. Scaphocapitate Fusion in the Management of Kienbock’s Disease. 54th Annual meeting for the Society of Military Orthopedic Surgeons. Naples, FL. December 13, 2012.   
  
16. Kakar S, Yuan B, Rhee P, Jones D, and Moran S. Impaired functional outcome associated with perilunate injuries of the wrist. 54th Annual meeting for the Society of Military Orthopedic Surgeons. Naples, FL. December 13, 2012.   
  
17. Rhee PC, Stuart M, Levy B, Holmes D, and Dahm D. A Translational Method to Assess Tibial Tunnel Volumetric Bone Mineral Density In Vitro and In Vivo. 54th Annual meeting for the Society of Military Orthopedic Surgeons. Naples, FL. December 12, 2012.   
  
18. Sassoon A, Schoch B, Rhee PC, Schleck C, Harmsen W, Sperling J, and Cofield RH. The role of eccentric and offset humeral head variations in total shoulder arthroplasty. 54th Annual meeting for the Society of Military Orthopedic Surgeons. Naples, FL. December 12, 2012.   
  
19. Kakar S, Yuan B, Rhee P, Jones D, and Moran S. Impaired functional outcome associated with perilunate injuries of the wrist. Annual meeting of the Orthopedic Trauma Association. Minneapolis, MN. October 4-6, 2012.   
  
20. Rhee PC and Shin AY. Minimally Invasive Insertion and Rigid Fixation for Distal Radius Fractures. Annual Meeting for the American Society for Surgery of the Hand. Chicago, IL. September 5-8, 2012.   
  
21. Rhee PC, Becker HA, Torchia ME, Shin AY. Minimally Invasive Insertion and Rigid Fixation for Mid-Diaphyseal Clavicle Fractures. Minnesota Orthopedic Society Annual Meeting. St. Paul, MN. April 27, 2012.   
  
22. Rhee PC, Kircher M, Spinner RJ, Bishop AT, and Shin AY Prevalence and Surgical Outcomes of Spinal Cord Injury Syndromes in the Adult Patient with Traumatic Brachial Plexus Injuries. Mid-America Orthopedic Association Annual Meeting. Bonita Springs, FL. April 18-22, 2012.   
  
23. Rhee PC, Shin A. Four-corner arthrodesis with a locking, dorsal circular polyether-ether ketone (PEEK-Optima) plate. Mid-America Orthopedic Association Annual Meeting. Bonita Springs, FL. April 18-22, 2012.   
  
24. Sassoon A, Schoch B, Rhee PC, Schleck C, Harmsen W, Sperling J, and Cofield RH. Comparison of 2nd to 3rd generation humeral heads in total shoulder arthroplasty. Mid-America Orthopedic Association Annual Meeting. Bonita Springs, FL. April 18-22, 2012.   
  
25. Kakar S, Yuan B, Rhee P, Jones D, and Moran S. Impaired functional outcome associated with perilunate injuries of the wrist. Annual meeting for the American Association for Hand Surgery. Las Vegas, NV. January 13, 2012.   
  
26. Rhee PC, Lin I, Moran S, Shin A, and Bishop A. Scaphocapitate fusion in the management of Kienbock’s disease. Annual meeting for the American Association for Hand Surgery. Las Vegas, NV. January 13, 2012.   
  
27. Rhee PC, Shin A. Four-corner arthrodesis with a locking, dorsal circular polyether-ether ketone (PEEK-Optima) plate. 53rd Annual meeting for the Society of Military Orthopedic Surgeons. San Diego, CA. December 2011.   
  
28. Rhee PC, Novias E, Shive T, Shin AY. Chondroblastoma with Secondary Aneurysmal Bone Cyst of the Hamate: A Case Report. 53rd Annual meeting for the Society of Military Orthopedic Surgeons. San Diego, CA. December 2011.   
  
29. Sassoon A, Rhee PC, Schleck C, Harmsen W, Sperling J, and Cofield R. Long term results of revision total shoulder arthroplasty for glenoid arthrosis: The non-traumatic shoulder. 53rd Annual meeting for the Society of Military Orthopedic Surgeons. San Diego, CA. December 2011.   
  
30. Rhee PC, Kircher M, Spinner RJ, Bishop AT, and Shin AY Prevalence and Surgical Outcomes of Spinal Cord Injury Syndromes in the Adult Patient with Traumatic Brachial Plexus Injuries. 53rd Annual meeting for the Society of Military Orthopedic Surgeons. San Diego, CA. December 2011.   
  
31. Rhee PC, Holmes D, Murthy N, Stuart M, Levy B, and Dahm D. Bone mineral density assessment of the tibial tunnel for anterior cruciate ligament reconstruction: A novel technique in cadaveric specimens. 53rd Annual meeting for the Society of Military Orthopedic Surgeons. San Diego, CA. December 2011.   
  
32. Rhee PC, Kircher M, Spinner RJ, Bishop AT, and Shin AY Prevalence and Surgical Outcomes of Spinal Cord Injury Syndromes in the Adult Patient with Traumatic Brachial Plexus Injuries. Adrian Flatt Resident Conference. 66th Annual meeting for the American Society Surgery of the Hand. Las Vegas, NV. September 8, 2011.   
  
33. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Revision Total Shoulder Arthroplasty for Painful Glenoid Arthrosis Following Humeral Head Replacement: The Post-Traumatic Shoulder. Southern Orthopaedic Association Annual Meeting. Kohala Coast, Big Island, HI. July 20-23, 2011.   
  
34. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Delta Screw versus RetroScrew Tibial Fixation for ACL Reconstruction in an Osteoporotic Cadaveric Model. International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Congress. Rio de Janeiro, Brazil. May 15-19, 2011.   
  
35. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Effect of Antegrade versus Retrograde Tibial Interference Screw Fixation on Intra-articular Graft Tension. International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Congress. Rio de Janeiro, Brazil. May 15-19, 2011.   
  
36. Rhee PC, Kircher M, Spinner R, Bishop A, and Shin A. Concomitant Spinal Cord Injuries in Adult Patients with Traumatic Brachial Plexus Injuries. Mid-America Orthopedic Association Annual Meeting. Tucson, AZ. April 6-10, 2011.   
  
37. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Delta Screw versus RetroScrew Tibial Fixation for ACL Reconstruction in an Osteoporotic Cadaveric Model. Arthroscopic Association of North America. San Francisco, CA. April 14-16.   
  
38. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Stem Exchange: Implications in Revision Total Shoulder Arthroplasty for the Painful Hemiarthroplasty. American Academy of Orthopedic Surgeons. San Diego, CA. February 17, 2010.   
  
39. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Delta Screw versus RetroScrew Tibial Fixation for ACL Reconstruction in an Osteoporotic Cadaveric Model. 52nd Annual meeting for the Society of Military Orthopedic Surgeons. Vail, CO. December 2010.   
  
40. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Long term results of revision total shoulder arthroplasty for glenoid arthrosis: The post-traumatic shoulder. 52nd Annual meeting for the Society of Military Orthopedic Surgeons. Vail, CO. December 2010.   
  
41. Rhee PC, Kircher M, Spinner R, Bishop A, and Shin A. Concomitant Spinal Cord Injuries in Adult Patients with Traumatic Brachial Plexus Injuries. 52nd Annual meeting for the Society of Military Orthopedic Surgeons. Vail, CO. December 2010.   
  
42. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Delta Screw versus RetroScrew Tibial Fixation for ACL Reconstruction in an Osteoporotic Cadaveric Model. Kelly Award Finalist Presentation. Rochester, MN. November 19, 2010   
  
  
43. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Revision Total Shoulder Arthroplasty for Painful Glenoid Arthrosis Following Humeral Head Replacement. American Shoulder and Elbow Surgeon Society Closed Meeting. Scottsdale, AZ. October 22, 2010.   
  
44. Rhee PC, Kircher M, Spinner R, Bishop A, and Shin A. Concomitant Spinal Cord Injuries in Adult Patients with Traumatic Brachial Plexus Injuries. Adrian Flatt Resident Conference. 65th Annual meeting for the American Society Surgery of the Hand. October 6, 2010.   
  
45. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Revision Total Shoulder Arthroplasty for Painful Glenoid Arthrosis Following Humeral Head Replacement. International Conference on Surgery of the Shoulder and Elbow. Edinburgh, Scotland. September 5-8, 2010.   
  
46. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Effect of Antegrade versus Retrograde Tibial Interference Screw Fixation on Intra-articular Graft Tension. Mid-America Orthopedic Association. Austin, TX. April 21, 2010.   
  
47. Rhee PC, Sassoon A, Dahm DL. Arthroscopic Excision of Localized Pigmented Villonodular Synovitis: Long Term Functional Results. Mid-America Orthopedic Association. Austin, TX. April 21, 2010.   
  
48. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Biomechanical Comparison of Single Versus Dual Intra-tunnel ACL Tibial Fixation in an Osteoporotic Model. Mid-America Orthopedic Association. Austin, TX. April 21, 2010.   
  
49. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Long Term Results of Revision Total Shoulder Arthroplasty for Glenoid Arthrosis. Mid-America Orthopedic Association. Austin, TX. April 21, 2010.   
  
50. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Long Term Results of Revision Total Shoulder Arthroplasty for Glenoid Arthrosis. Mayo Clinic Young Investigators Research Symposium. Rochester, MN. March 28-29, 2010.   
  
51. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Long Term Results of Revision Total Shoulder Arthroplasty for Glenoid Arthrosis. American Academy of Orthopedic Surgeons. New Orleans, LA. March 9, 2010.   
  
52. Rhee PC, Woodcock J, Sucato D, Beaule P, Millis M, Clohisy J, Trousdale R, and Sierra R. Inter- and Intra-observer Reliability of Shenton’s Line in Diagnosing Developmental Dysplasia of the Hip. Mid-America Orthopedic Association. Austin, TX. April 21, 2010.   
  
53. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Effect of Antegrade versus Retrograde Tibial Interference Screw Fixation on Intra-articular Graft Tension. 51st Annual meeting for the Society of Military Orthopedic Surgeons, Honolulu, HI. December 16, 2009.   
  
54. Rhee PC and Dahm D. Prospective Evaluation of Bone Mineral Density Loss in Women Following Anterior Cruciate Ligament Reconstruction. 5th Annual Women’s Health Research Conference, University of Minnesota – Twin Cities, September 22, 2008.   
  
55. Rhee PC, Moran SL, and Shin AY. Association of Lunate Morphology and Carpal Collapse in Cases of Scapholunate Dissociation. Adrian Flatt Resident Conference, 63rd Annual meeting for the American Society for Surgery of the Hand. September 17, 2008.   
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CLINICAL PRACTICE, INTERESTS, AND ACCOMPLISHMENTS:   
  
Clinical Practice: Degenerative and traumatic treatment of hand, wrist, elbow, and shoulder   
pathology. Special interest in secondary reconstruction of joint, peripheral nerve, soft tissue, and tendon injuries. Including free tissue transfer and brachial plexus reconstruction.   
  
Interest: Multidisciplinary care for reconstruction of post-traumatic pathology, particularly in military service members. Providing clinic-based wide awake hand surgery.   
  
Accomplishment: Successfully created the San Antonio Military Medical Center Emergency Microvascular Surgery Program in conjunction with the Southwest Texas Regional Advisory Council to provide emergency hand surgery and microvascular support to south central Texas in 2013.   
  
Created a clinic-based wide awake hand surgery program for the San Antonio Military Health System at the San Antonio Military Medical Center providing surgery in the clinic setting that results in nearly $400,000 cost-savings for the Department of Defense with results published in the Journal of Hand Surgery.   
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RESEARCH INTERESTS:   
  
1. Rhee PC (PI), Jeardeu T, Toomey S, Jensen K, Bishop AT, Shin AY. Triceps motor loss after a Leechavengvong procedure. In progress.   
  
2. Rhee PC (PI), Jeardeu T, Toomey S, Jensen K, Bishop AT, Shin AY. Hand intrinsic motor loss after an Oberlin procedure. In progress.   
  
3. Rhee PC (PI), Kircher M, Spinner RJ, Bishop AT, and Shin AY. Prevalence and Surgical Outcomes of Spinal Cord Injury Syndromes in the Adult Patient with Traumatic Brachial Plexus Injuries. Submitted to J of Hand Surgery Am. May 2014.   
  
4. Kakar S, Yuan B, Rhee P, Jones D, and Moran S. Perilunate Fracture Dislocations: A Case Series. In manscript.   
  
5. Rhee PC (PI) and Dahm D. Prospective evaluation of bone mineral density loss in women following anterior cruciate ligament reconstruction. In manuscript.   
  
6. Rhee PC (PI) and Shin AY. Trapeziectomy and thumb suspensionplasty in the setting of scaphoidectomy or proximal row carpectomy. In progress.   
  
7. Rhee PC (PI) and Shin AY. Concomitant scapholunate ligament repair and trapeziectomy with ligament reconstruction, tendon interposition. In progress.   
  
8. Rhee PC (PI), Jones DB, Shin AY. Trapeziectomy and thumb suspensionplasty or ligament reconstruction, tendon interposition in patient younger than 55. In manuscript.   
  
9. Rhee PC (PI), Becker HA, Torchia ME, Shin AY. Minimally invasive flexible insertion and rigid intramedullary fixation for clavicle fracture. In progress.   
  
10. Rhee PC (PI), Stuart M, Levy B, Holmes D, and Dahm D. Translation of biomechanical to clinical ACL studies utilizing a novel method of tibial tunnel BMD assessment with quantitative computed tomography. In progress.   
  
11. Rhee PC (PI), Holmes D, Stuart M, Levy B, and Dahm D. Proximal tibial BMD in patients with ACL injuries. In progress.   
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EDUCATIONAL PRACTICE, INTEREST, AND ACCOMPLISHMENTS   
  
Educational Practice: Hand surgery rotation curriculum director for the orthopedic surgery residency SAUSHEC.   
  
Interest: Special interest in enhancing resident and fellow education to millenials and adopting high fidelity methods to cultivate surgical skills.   
  
Accomplishments: Restructured the hand surgery rotation at SAUSHEC to focus on resident case based learning and supervised autonomy. Received 3 year accreditation for the Army Institute of Surgical Research Microvascular Surgery Training Center. Honored as teacher of the year in 2015.   
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RESEARCH GRANTS AWARDED:   
  
Extramural   
1. Major Extremity Trauma Research Consortium (METRC): $4,500   
2. Axogen Inc: $336.00 per screening visit, $168.00 per follow-up visit (max 4 visits)   
3. Department of Defense: $169,460   
4. National Institute of Health: $177,614   
  
Intramural   
5. Mayo Clinic Sports Medicine Discretionary Fund Grant ($5,000). 2010.   
6. Mayo Clinic Orthopedic Research Review Committee Small Grant Award ($5,000). 2010.   
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BIBLIOGRAPHY   
  
Peer-reviewed (In print/Accepted)   
  
1. Rhee PC, Rhee LS, Fischer M, McMillan H, Johnson AE. Cost Savings, Safety, and Patient Satisfaction for Wide-Awake Hand Surgery at a Military Medical Center: Critical Analysis of the First 100 Procedures. J Hand Surg Am. 2017 Mar;42(3):e138-3147.   
  
2. Rhee PC, Medoff RJ, Shin AY. Complex Distal Radius Fractures: An Anatomical Algorithm for Surgical Management. J Am Acad Orthop Surg. 2017 Feb;25(2):77-88.   
  
3. Rhee PC, Shin AY. Management of Complex Distal Radius Fractures: Review of Treatment Principles and Select Surgical Techniques. J of Hand Surg – Asian Pacific. 2016;21(2):1-15.   
  
4. Hyatt B, Rhee PC, Moran SL, Steinmann S. Absent Ring Finger Flexor Digitorum Profundus Presenting as a Jersey Finger: Case Report and Review of the Literature. J Hand Surg Am. 2016 May;41(5):e95-7.   
  
5. Rambau G, Rhee PC. Evaluation and Management of Nondisplaced Scaphoid Waist Fractures in the Athlete. Oper Tech in Sports Med. 2016 June;24(2):87-93.   
  
6. Hyatt B, Rhee PC. Longitudinal Split Tears of the Ulnotriquetral Ligament. Oper Tech in Sports Med. 2016 June;24(2):126-130.   
  
7. Cates R, Rhee PC, Kakar S. Multiple Volar Carpometacarpal Dislocations: Case Report/Review of the Literature. J Wrist Surg. 2016 Aug;5(3):236-40.   
  
8. Sheean AJ, Tintle SM, Rhee PC. Soft tissue and wound management of blast injuries. Curr Rev Musculoskeletal Med. 2015 Sep;8(3)265-71.   
  
9. Rhee PC, Jones DB, Moran S, and Shin A. The Effect of Lunate Morphology and Kienbock Disease. J Hand Surg Am. 2015 Apr;40(4):738-44.   
  
10. Rhee PC, Lin I, Moran S, Shin A, and Bishop A. Scaphocapitate arthrodesis for Kienbock disease. J Hand Surg Am. 2015 Apr;40(4): 745-51.   
  
11. Sauve PS, Rhee PC, Shin AY, Lindau T. Examination of the Wrist: Radial sided wrist pain. J Hand Surg Am. 2014 Oct;39(10):2089-2092.   
  
12. Rhee PC, Jones DB, Shin AY, Bishop AT. Evaluation and treatment of scaphoid nonunions. J Bone and Joint Surg Reviews. 2014;2(7):e4.   
  
13. Rhee PC, Sauve PS, Lindau T, Shin AY. Examination of the Wrist: Ulnar sided Wrist Pain due to Ligamentous Injury. J Hand Surg Am. 2014 Aug 1.   
  
14. Ai S, Qu M, Glazebook KN, Liu Y, Rhee PC, Leng S, McCollough CH. Use of dual-energy CT and virtual non-calcium techniques to evaluated post-traumatic bone bruises in knees in the subacute setting. Skeletal Radio. 2014 Sept;43(9):1289-1295.   
  
15. Glazebrook KN, Brewerton LJ, Leng S, Carter RE, Rhee PC, Murthy NS, Howe BM, Ringler MD, Dahm DL, Stuart MJ, McCollough CH, Fletcher JG. Case-control study to estimate the performance of dual-energy computed tomography for anterior cruciate ligament tears in patients with history of knee trauma. Skeletal Radio. 2014 Mar;43(3):297-305.   
  
16. Jones DB Jr, Rhee PC, Shin AY, Kakar S. Salvage options for flexor carpi radialis tendon disruption during ligament reconstruction and tendon interposition or suspension arthroplasty of the trapeziometacarpal joint. J Hand Surg Am. 2013 Spe;38(9):1806-11.   
  
17. Rhee PC, Shin AY. Complication of trapeziectomy with and without suspension arthroplasty. J Hand Surg Am. 2014 Apr;39(4):781-3.   
  
18. Rhee PC, Spinner RJ, Bishop AT, and Shin AY. Iatrogenic brachial plexus injuries associated with open subpectoral biceps tenodesis: A report of 4 cases. Am J of Sports Med. 2013 Sep;41(9):2048-53.   
  
19. Rhee PC, Fox T, Kakar S. Nail Gun Injuries to the Hand. J Hand Surg AM. 2013 Jun;38(6):1242-6.   
  
20. Rhee PC, Shin A. The rate of successful four-corner arthrodesis with a locking, dorsal circular polyether-ether-keton (PEEK-Optima) plate. J Hand Surg Eur. 2013 Sep;38(7):767-73.   
  
21. Sassoon A, Schoch B, Rhee PC, Schleck C, Harmsen W, Sperling J, and Cofield RH. The role of eccentric and offset humeral head variations in total shoulder arhthroplasty. J of Shoulder Elbow Surg. 2013 Jul;22(7):886-93.   
  
22. Rhee PC, Kakar S, Shin AY. Four-corner arthrodesis with a locking, dorsal circular polyether-ether-ketone (PEEK-Optima) Plate. Tech Hand Up Extrem Surg. 2012;16(4):236-41.   
  
23. Rhee PC, Becker HA, Rizzo M. Hand and Wrist Trauma: Update on the treatment of metacarpal fractures. Curr Orthop Pract. 2012;23(4):289-295.   
  
24. Rhee PC, Jones D and Kakar S. Current Concepts in ulnar collateral ligament injuries of the thumb. JBJS Am. J of Bone and Joint Surg Am. 2012;94(21):2005-12.   
  
25. Rhee PC, Jones DB, Bishop AT, and Shin AY. Free medial femoral condyle vascularized bone grafting for scaphoid nonunions with proximal pole avascular necrosis and carpal collapse. Oper Tech in Ortho. 2012;22:159-166.   
  
26. Rhee PC and Shin AY. Dorsal distal radius pedicled vascularized bone grafting for avascular necrosis of the carpus. Oper Tech in Ortho. 2012;22:151-158.   
  
27. Jones DB, Rhee PC, Shin AY. Free medial femoral condyle autograft for scaphoid nonunion. Hand Clinics. 2012;28(4):483-501.   
  
28. Rhee PC, Shin AY. Minimally invasive flexible insertion and rigid intramedullary fixation for distal radius fracture. Tech in Hand and Up Extrem Surg. 2012;16(4):236-41.   
  
29. Rhee PC, Kakar S, Dennison D. Avoiding and treating complications of distal radius fracture. Hand Clinics. 2012;28(2):185-98.   
  
30. Jones DB, Rhee PC, Shin AY. Vascularized bone graft for scaphoid nonunions. J Hand Surg Am. 2012;37(5):1090-4.   
  
31. Sassoon A, Rhee PC, Schleck C, Harmsen W, Sperling J, and Cofield R. Revision total shoulder arthroplasty for painful glenoid arthrosis after humeral head replacement: The nontraumatic shoulder. J Shoulder and Elbow Surg. 2012;21(11):1484-91.   
  
32. Rhee PC, Novais E, Shives T, and Shin A. Chondroblastoma with Secondary Aneurysmal Bone Cyst of the Hamate: A Case Report. J Hand Surg Am. 2012;37(3):538-42.   
  
33. Rhee PC, Kircher M, Spinner R, Bishop A, and Shin A. Concomitant traumatic spinal cord and brachial plexus injuries in the adult patient. J of Bone and Joint Surg Am. 2011;93(24):2271-7.   
  
34. Rhee PC, Thoreson A, An K, Stuart M, Dahm D, and Levy B. Delta screw versus RetroScrew tibial fixation for ACL reconstruction. J of Knee Surg Sports Traumatol Arthrosc. 2011;19 Suppl 1:S94-100.   
  
35. Rhee PC and Kakar S. Chronic metacarophalangeal joint ulnar collateral ligament insufficiency. J of Hand Surg Am. 2012;37(2):346-8.   
  
36. Rhee PC, Woodcock J, Sucato D, Beaule P, Millis M, Clohisy J, Trousdale R, and Sierra R. Shenton’s Line in Diagnosis of Acetabular Dysplasia in the Adult Patient. J of Bone and Joint Surg Am. 2011;93 Suppl 2:35-9.   
  
37. Rhee PC, Sassoon A, Schleck C, Harmsen W, Sperling J, and Cofield R. Long term results of revision total shoulder arthroplasty for glenoid arthrosis: The post-traumatic shoulder. J of Shoulder & Elbow Surgery. 2011;20(8):1255-64.   
  
38. Rhee PC, Thoreson A, An K, Stuart M, Levy B, and Dahm D. A biomechanical comparison of the Delta screw and RetroScrew tibial fixation on initial intra-articular graft tension. Knee Surg Sports Traumatol and Arthrosc. 2011. 19(5):781-6.   
  
39. Rhee PC, Sassoon A, and Dahm D. Arthroscopic excision of localized pigmented villonodular synovitis: Long term functional results. Am J of Orthop. 2010;39(9):E90-E94.   
  
40. Rhee PC, Moran S, and Shin A. The association of lunate morphology and carpal collapse in cases of scapholunate dissociation. J of Hand Surg. 2009;34(9):1633-1639.   
  
41. Estes C, Rhee PC, Shrader MW, Csavina K, Jacofsky MC, and Jacofsky DJ. Biomechanical strength of the Peri-Loc proximal tibial plate: A comparison of all-locked versus hybrid locked/nonlocked screw configurations. J Orthop Trauma. 2008;22:312-316.   
  
42. Rhee PC and Main C. Bilateral posterior fracture-dislocation of the shoulder as a presenting sign of an intracranial tumor. Internet J Ortho Surg 2005;3(1).   
  
Book Chapters   
  
1. Rhee PC. “Cross Finger and Reverse Cross Finger Flaps”. ASSH Surgical Anatomy: Flap Reconstruction of the Upper Extremity. Ed. Moran S and Chung K. Chicago, IL. Present. In progress.   
  
2. Rhee PC, Shin AY. “Brachial Plexus Injuries.” Atlas of Amputations and Limb Deficiencies. American Association for Orthopedic Surgery. Chicago, IL. 2015. In publication.   
  
3. Rhee PC, Murray P. “Principles of nerve repair and nerve transfers”. Chapman’s Comprehensive Orthopedic Surgery. 2015. In Publication.   
  
4. Rhee PC, Shin AY. “Scaphoid Nonunion: Surgical Fixation with Vascularized Bone Graft – Free Medial Femoral Condyle Graft. Scaphoid Fractures and Nonunions. Ed. Yao J. Springer. Marlton, NJ. 2015. In Press.   
  
5. Rhee PC, Shin AY. “Four-corner arthrodesis.” Advances in Scapholunate Ligament Treatment. Ed. Shin AY, Day CS. American Society for Surgery of the Hand. Chicago, Il. 2014. In Press.   
  
6. Rhee PC, Moran SL. “The Lunate Bone and Its Variants, Effects on Kienbock Disease“. Kienbock Disease: Advances in Diagnosis and Treatment. Ed. Lichtman D, Bain G. Springer. Marlton, NJ. 2015. In progress.   
  
  
Editorials   
  
1. Rhee PC. Socrates’ Dilemma: Challenges in Training the Millenial Generation of Hand and Upper Extremity Surgeons. Tech Hand Up Extrem Surg. 2016 Sep;20(3):89-90.   
  
2. Rhee PC. We are physicians first, orthopedic surgeons second. Am J. Orthop. 2012;41(1):E10-E11.

***Kristin Garlanger, DO***  
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**CV:**  
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1906 SHANNON OAKS BLVD. NE, ROCHESTER, MN 55906   
(708) 710-2609 • GARLANGER.KRISTIN@MAYO.EDU   
  
  
  
EDUCATION   
2016-2017 Zablocki VA Medical Center/Medical College of Wisconsin Milwaukee, WI   
Spinal Cord Injury Fellow (PGY-5)   
  
2013-2016 Mayo School of Graduate Medical Education Rochester, MN   
Physical Medicine and Rehabilitation Residency   
  
2012-2013 Illinois Masonic Medical Center Chicago, IL   
Traditional Osteopathic Rotating Internship   
  
2009-2012 Chicago College of Osteopathic Medicine Downers Grove, IL   
Osteopathic Manipulative Medicine (OMM) Pre-Doctoral Teaching and Research Fellowship   
  
2007-2012 Chicago College of Osteopathic Medicine Downers Grove, IL   
Degree: Doctor of Osteopathic Medicine   
  
2006-2009 Midwestern University Downers Grove, IL   
Degree: Masters in Biomedical Sciences   
  
2002-2006 University of Illinois Champaign-Urbana, IL   
Degree: Bachelor of Science; Major: Molecular and Cellular Biology   
  
AWARDS/HONORS   
  
2016-2017 Mayo Clinic Scholar appointment   
2015 AAMC Organization of Resident Representatives Community Service Award nominee   
2010-2012 Sigma Sigma Phi National Honorary Osteopathic Service Fraternity   
2010 1st place for “Best Original Research” at the annual AOCPMR Mid-Year Conference   
2009-2012 OMM Pre-Doctoral Teaching and Research Scholarship recipient   
  
PROFESSIONAL SOCIETIES   
  
2014-current Academy of Spinal Cord Injury Professionals (ASCIP)   
2014-current American Academy of Physical Medicine and Rehabilitation (AAPMR)   
2014-current American Medical Society for Sports Medicine (AMSSM)   
2010-current American Osteopathic College of Physical Medicine and Rehabilitation (AOCPMR)   
2007-current American Medical Association (AMA)   
2007-current American Osteopathic Association (AOA)   
  
LEADERSHIP/ COMMITTEE INVOLVEMENT   
2015- Present ASCIP Electronic Communication Committee Member   
• Approve weekly publications to be added to online NewsBrief. Collaborate with other SCI professionals on ways to improve ASCIP website and social media output for professional society.   
  
2015- Present ASIA Health Policy Advocacy Committee Member   
• Learn up to date health policy issues within the spinal cord injury community and contribute to committee discussions from an early career perspective during monthly conference calls   
  
2014-2015 Mayo Fellows Association (MFA) Athletics Committee Co- Chair   
• Co-directed the annual Climb the Clinic 2015 event to raise money for Rochester’s Neurological Recovery House and currently organizing the Mayo Clinic Wellness Challenge to promote health and wellness amongst all Mayo Clinic employees   
  
2014-Present Mayo Clinic Spinal Cord Injury Rehabilitation Committee   
• Discuss upcoming community outreach events, grant proposals and ongoing research pertaining to the Mayo Clinic spinal cord injury population   
  
2014-2016 Mayo Clinic PM&R Spinal Cord Injury Research Interest Group   
• Discuss ongoing and future Mayo Clinic PM&R spinal cord injury research projects in collaboration with the Anesthesiology and Neurosurgery departments   
  
2013- 2016 AOCPMR Resident Council Executive Board Membership Chair   
• Recruit physiatry residents to the college year-round, oversee regional representatives to help facilitate regional events and workshops and created a nation-wide resident database to communicate educational opportunities offered by the college   
  
SELECTED MEDICAL TRAINING/ TEACHING/ VOLUNTEER WORK   
  
Training:   
2013, 2014 Mayo Clinic Musculoskeletal Ultrasound Course   
• Annual five-month comprehensive diagnostic and interventional musculoskeletal imaging course directed by interventional physiatrists with written and practical assessments   
  
2009-2012 Osteopathic Manipulative Medicine (OMM) Fellowship   
• Three year fellowship for further training in manual medicine diagnosis and treatment; mentored by neuromuscular medicine and sports medicine board certified physicians   
  
Teaching:   
2015, 2009-2012 Medical Student Instructor   
• Assisted with the Mayo Medical School Musculoskeletal Ultrasound Workshop and Musculoskeletal Physical Examination Course for 1st year students   
• Led instructional workshops on manual medicine diagnosis and treatment techniques for 1st and 2nd year osteopathic medical students and Chicagoland PM&R residents as part of a three-year OMM Fellowship   
  
2014 AAPMR 2014 Annual Assembly Workshop Table Trainer   
• Taught osteopathic manual medicine techniques to academy attendees. The two workshops were entitled: Manual Manipulation for the Adaptive Sports Athletes, and Manipulation for Common Exercise Injuries   
  
2010 AOCPMR 2010 Mid-Year Conference Technique Instructor   
• Directed the workshop entitled: Somatic Dysfunction and Upper Extremity Complaints in Athletes and instructed consultant level physiatrists on various osteopathic manual medicine techniques   
  
Volunteer Work:   
2014- Present Adaptive Sports Involvement   
• Wheelchair Basketball Classification Clinic 2016, Minneapolis, MN- Certified Regional Classifier   
• Zablocki VAMC Adaptive Cycling Clinic 2016, Milwaukee, WI- Volunteer   
• Rochester Sled Hockey 2015 & 2016 seasons, Rochester, MN –   
Marketing and Promotions Committee Member   
• Southeastern Minnesota Center for Independent Living 2015, Wabasha, MN-   
Adaptive Ski Team Resident Director   
• National Wheelchair Sports and Recreation Camp 2014 & 2016, Stewartville, MN- Volunteer   
• Circus Juventus “Out of Chair” Program 2014, St. Paul, MN- Medical Advisor   
• AAPMR Quad Rugby Tournament 2014 & 2016, San Diego, CA & New Orleans, LA- Participant   
  
2013-Present Physician Coverage for Local Teams and Sporting Events   
• Winter Sports Clinic for Disabled Veterans 2017, Snowmass, CO- Medical Staff   
• Big Cheese Wheelchair Basketball Tournament 2017, Brookfield, WI- Medical Staff   
• National Veterans Valor Games 2016, Chicago, IL- Medical Staff   
• National Veterans Wheelchair Games 2016, Salt Lake City, Utah- Medical Staff   
• National Wheelchair Lacrosse Tournament 2016, Ocean City, MD- Medical Staff   
• Dover-Eyota High School Football, 2013-14 season   
• John Marshall High School Hockey, 2014 & 2015 seasons   
• Rochesterfest Triathlon medical tent   
  
2013- 2016 Rehab in Review- The Surveillance Journal for Rehabilitation Professionals   
• Mayo Clinic resident contributor: October 2013, September 2014, November 2014, January 2015   
  
2014, 2015 National Conference Ultrasound Volunteer   
• The Orthobiologic Institute 5th Annual PRP & Regenerative Medicine Symposium- volunteer   
• American Institute of Ultrasound in Medicine 2014- ultrasound model   
• AAPM&R Annual Assembly 2014 Sonography of the Shoulder Workshop- ultrasound model   
  
2014 ACL Injury Prevention Demonstration   
• Mayo Clinic Sports Medicine Center Open House   
  
2013-14 MFA Climb the Clinic 2014   
• Advertising committee and event registration coordinator   
  
  
PUBLICATIONS, SELECTED PRESENTATIONS & PROJECTS   
  
Publications:   
• Garlanger K, Laskowski EL. The feasibility and effects of acupuncture in an adolescent Nordic ski   
population. PM R. 2017; 9: 795-803.   
• Farooq S, Garlanger K, Waring W. Posterior reversible encephalopathy syndrome triggered by autonomic dysreflexia in a spinal cord injury patient. Neurology. 2017; 88(16): Supplement p5.158   
• Garlanger K, Jelsing E, Finnoff J. External iliac artery vasospasm in an elite female runner. Sports Health. 2017; 9(1): 87-90.   
• Garlanger K, Beck L. Functional outcomes in patients with co-occurring traumatic brain injury and spinal cord injury from an inpatient rehabilitation facility’s perspective. Accepted to JSCM pending Revisions, May 2017.   
• Garlanger K, Laskowski EL. Right knee pain and swelling - Adolescent volleyball player. Med Sci Sports Exerc. 2015; 47:5 Supplement.   
• Garlanger K, Nelson D, Reeves RK. Compressive spinal subdural hematoma after ruptured PICA aneurysm   
resulting in a mixed neurologic picture. J Spinal Cord Med. 2014; 37(4): 452.   
• Kulovitz K, Garlanger K, Aguinaldo E, McMahon K. Structural asymmetry and its relation to sports injury.   
J Am Osteopath Assoc. 2009 Aug; 109(8): 427.   
  
  
Oral Conference Presentations:   
• Garlanger K. (2017). Biomechanical analysis of wheelchair athletes with paraplegia during crosstraining exercises. Medical College of Wisconsin Continuing Education Program PM&R Research Day, Milwaukee, WI.   
• Lee K, Garlanger K. (2016). The benefits and medical considerations for adaptive sport athletes. Presented to Chicago Medical School, North Chicago, IL.   
• Garlanger K. Schubert S. (2016). Spinal Cord Injury Fellowship Considerations and Q&A Session. ASCIP 2016 Conference, Nashville, TN.   
• Garlanger K. (2015). Rehabilitation considerations for an adolescent nontraumatic SCI patient with ACTA2   
gene mutation. Mayo Clinic PM&R Grand Rounds, Rochester, MN.   
• Garlanger K. (2014 & 2015). Right knee pain and swelling- Adolescent volleyball player. Mayo Clinic Sports   
Medicine Conference, Rochester, MN & Podium presentation at the American College of Sports Medicine Annual Meeting,   
San Diego, CA.   
• Garlanger K. (2014). Functional outcomes in patients with concurrent TBI and SCI: A follow- up study   
identifying and characterizing those we missed. Mayo Clinic PM&R Grand Rounds, Rochester, MN.   
• Garlanger K, Iafrate L. (2014). Introduction to osteopathic manipulative medicine. Mayo Clinic PM&R resident didactics, Rochester, MN.   
• Garlanger K. (2012). Structural asymmetry and its relation to sports injury. Invited speaker, Midwestern University Board of Directors Spring Meeting, Downers Grove, IL.   
• Garlanger K. (2009). Thyroid hormone regulation of norepinephrine transporter expression in retinal   
pigment epithelium. Midwestern University Biomedical Masters Program, Thesis Defense, Downers Grove, IL.   
  
  
Poster Presentations:   
• Garlanger K, Lee, K. (2017). Play now pay later? Considerations for a wheelchair athlete with paraplegia and acute upper limb injury. ASCIP 2017 Conference, Denver, CO.   
• Farooq S, Garlanger K, Waring W. (2017). Acute visual loss in a patient with spinal cord injury. American Academy of Neurology 2017 Conference, Boston, MA.   
• Garlanger K, Beck L. (2015). The significance of age and functional outcomes in missed dual traumatic brain injury and spinal cord injury. ASCIP 2015 Conference, New Orleans, LA.   
• Garlanger K, Beck L. (2015). Traumatic brain injury and concurrent spinal cord injury: What are the characteristics of persons with missed dual diagnoses? International Spinal Cord Society and ASIA 2015 Joint Scientific Meeting, Montreal, Canada.   
• Garlanger K, Pourcho AM, Onishi K, Sellon JL. (2015). Distal thigh popping and pain in a former collegiate sprinter. AMSSM 24thAnnual Meeting, Hollywood, FAL.   
• Garlanger K, Brubaker M, Weinmiller M. (2014). POEMS syndrome presenting as gait instability and foot drop: A case report. AAPMR 2014 Annual Assembly, San Diego, CA.   
• Garlanger K, Armstrong K, Reeves RK. (2014). Cauda equina syndrome secondary to compressive spinal subdural hematoma after ruptured PICA aneurysm. ASCIP 2014 Conference, St. Louis, MO.   
• Garlanger K, Armstrong K, Schultz B. (2014). Neuropathic pain secondary to West Nile Virus poliomyelitis. Association of Academic Physiatrists 2014 Conference, Nashville, TN.   
  
Grant Awards:   
• Department of Physical Medicine and Rehabilitation Research Administration Committee (RAC) Grant Award, January 2017. Project: Biomechanical Analysis of Wheelchair Athletes with Paraplegia during Crosstraining Exercises.   
  
Quality Improvement Projects:   
• Garlanger K, Lanouette M, Powell K, Bolwerk N, Kunkel C, Knighton O, Sanger J. Tendon transfer screening protocol for purposes of educating and recruiting veterans with spinal cord injury whom are candidates for tendon transfer surgery (2016-2017). Milwaukee VA Medical Center, Milwaukee, WI.   
• Garlanger K, Schubert S (2013-2015).Visiting medical student clerkship improvement project. Mayo Clinic, Rochester, MN.   
  
Fellowships:   
• 2016-2017. Zablocki VA Medical Center, Milwaukee, WI. Spinal Cord Injury Fellowship   
• 2009-2012. Chicago College of Osteopathic Medicine, Downers Grove, IL. Osteopathic Manipulative Medicine (OMM) Pre-Doctoral Teaching and Research Fellowship

***Ronald K, MD***  
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**CV:**  
CURRICULUM VITAE   
Ronald K. Reeves, MD   
Mayo Clinic Department of Physical Medicine and Rehabilitation, 200 First Street SW, Rochester, MN 55905, USA   
Phone: 507-284-5000 Email: reeves.ronald@mayo.edu   
  
Education/Board Certification:   
1984-1988 Brandeis University: BA, Biology and Psychology   
1990-1994 Mayo Medical School: MD   
1994-1995 Mayo Graduate School of Medicine, College of Medicine, Mayo Clinic Internship, Internal Medicine   
1995-1998 Mayo Graduate School of Medicine, College of Medicine, Mayo Clinic Residency, Physical Medicine and Rehabilitation   
1999, 2009 ABPMR Board of Physical Medicine and Rehabilitation Certification   
2001, 2011 ABPMR Subspecialty Certification in Spinal Cord Injury Medicine   
  
Relevant Positions and Employment:   
1998-present Attending Physician – Department of Physical Medicine and Rehabilitation, Mayo Clinic   
2000-2008 Director – Mayo Clinic Spinal Cord Injury Program   
2003-2011 Vice-Chair, PM&R Hospital Practice – Department of Physical Medicine and Rehabilitation   
2003-2012 Medical Director – Mayo Clinic Inpatient Rehabilitation Unit, St. Marys Hospital   
2008-2012 Mayo Clinic Hospital Practice Committee, Rochester Minnesota   
2009-2012 Chair – Hospital Score Card & Unit Rounds Sub-committee, St. Marys Hospital   
  
Selected Professional Memberships:   
1999- present American Spinal Injury Association – member   
1999- present International Spinal Cord Society- member   
2006- 2008 American Spinal Injury Association – SCI E-Learning Sub-committee (Co-Chair)   
2006- present American Spinal Injury Association Education Committee   
2008- 2015 Neurological Recovery House, Board of Directors, (Chair of the Board 2008-2012)   
2010- present International Spinal Cord Society Education Committee   
2011- 2014 American Spinal Injury Association – Education Committee Chair   
2013-present American Spinal Injury Association- Board of Directors   
  
Selected Honors:   
1988 Phi Beta Kappa - Brandeis University   
1997 Mayo Brothers Distinguished Fellowship - Mayo Graduate School of Medicine   
2000 First Prize for poster presentation - American Spinal Injury Association meeting   
2000-04 Excellence in Teaching Recognition- Mayo Medical School   
2003 Clinical Practice Innovation Award - Mayo Clinic   
2005 Mayo Individual Award for Service Excellence   
2009-17 Best Doctors in America   
2012 Merit Award from the 19th Annual National Health Information Resource Center Awards for “Functional Electrical Stimulation (FES) for Neurological Conditions”- Health Information Resource Center   
2013 Silver Award from the 20th Annual National Health Information Resource Center Awards for “Diaphragm Pacing” –ealth Information Resource Center   
2014 Mayo Clinic Fellows Association Physical Medicine and Rehabilitation Teacher of the Year   
  
Publications:   
Doctor Reeves has authored/co-authored numerous peer-reviewed articles and abstracts selected publications related to Spinal Cord Medicine are noted:   
  
1. Yao KM, Samson ML, Reeves R, White K. Gene elav of Drosophila melanogaster: a prototype for neuronal-specific RNA binding protein gene family that is conserved in flies and humans. J Neurobiol. 1993 Jun; 24(6):723-39. PMID: 8331337.   
2. Reeves, RK, Stolp-Smith, KA, Christopherson, MW. Hyperthermia, rhabdomyolysis and disseminated intravascular coagulation associated with baclofen pump catheter failure. Arch Phys Med Rehabil. 1998; 79(3): 353-35.   
3. Huntoon MA, Hurdle MFB, Marsh RW, Reeves RK. Intrinsic spinal cord catheter placement: Implications of new intractable pain in a patient with a spinal cord injury. Anesth Analg. 2004 Dec; 99(6):1763-5.   
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5. Waring WP 3rd, Biering-Sorensen F, Burns S, Donovan W, Graves D, Jha A, Jones L, Kirshblum S, Marino R, Mulcahey MJ, Reeves R, Scelza WM, Schmidt-Read M, Stein A. 2009 review and revisions of the international standards for the neurological classification of spinal cord injury. J Spinal Cord Med. 2010; 33(4):346-52.   
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7. Piderman KM, Mueller PS, Theneau TM, Stevens SR, Hanson AC, Reeves RK. A pilot study of spirituality and inpatient rehabilitation outcomes in persons with spinal cord dysfunction and severe neurological illnesses. J Pastoral Care Counsel. 2011 Fall-Winter; 65(3-4):1-13. PMID:22452149   
8. New P, Townson A, Scivoletto G, Post M, Eriks-Hoogland I, Gupta A, Smith E, Reeves RK, Gill Z. International comparison of the organisation of rehabilitation services and systems of care patients with non-traumatic spinal cord injury. Spinal Cord (2013) 51, 33–39; doi:10.1038/sc.2012.82; published online 17 July 2012.   
9. Chhabra HS, Harvey LA, Muldoon S, Chaudhary S, Arora m, Brown DJ, Biering-Srensen F, Wyndaele JJ, Charlifue S, Horsewell J, Ducharme S, Green D, Simpson D, Glinsky J, Weerts E, Upadhyay N, Aito S, Wing P, Katoh S, Kovindha A, Krassioukov A, Weeks C, Srikumar V, Reeves RK, Sirivardhane C, Hasnan N, Kalke YB, Lanig I. www.elearnSCI.org: a global educational initiative of ISCoS. Spinal Cord. 2013. Mar; 51(3):176-82. PMID:23448857.DOI:10.1038/sc.2012.177.   
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11. New PW, Scivoletto G, Smith E, Townson A, Gupta A, Reeves RK, Post MW, Eriks-Hoogland I, Gill ZA, Belci M. International survey of perceived barriers to admission and discharge from spinal cord injury rehabilitation units. Spinal Cord. 2013 Dec; 51(12):893-7. Epub 2013 Jul 30. PMID: 23896668. DOI:10.1038/sc.2013.69.   
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14. New PW, Reeves RK, Smith E, Townson A, Eriks-Hoogland I, Gupta A, Maurizio B, Scivoletto G, Post MW. International retrospective comparison of inpatient rehabilitation for patients with spinal cord dysfunction epidemiology and clinical outcomes. Arch Phys Med Rehabil. 2015 Jun; 96(6):1080-7. Epub 2015 Mar 02. PMID: 25743728. DOI: 10.1016/j.apmr.2015.02.016.   
15. Walden K, Belanger LM, Biering-Sorensen F, Burns SP, Echeverria E, Kirshblum S, Marino RJ, Noonan VK, Park SE, Reeves RK, Waring W, Dvorak MF. Development and validation of a computerized algorithm for International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI). Spinal Cord. 2015 Sep 01. PMID: 26323348. DOI:10.1038/sc.2015.137.   
16. New PW, Reeves RK, Smith E, Eriks-Hoogland I, Gupta A, Scivoletto G, Townson A, Maurizio B, Post MW. International Retrospective Comparison of Inpatient Rehabilitation for Patients With Spinal Cord Dysfunction: Differences According to Etiology. Arch Phys Med Rehabil 2016 Mar; 97 (3):380-5 Epub 2015 Nov 22 PMID:26615143 DOI:10.1016/j.apmr.2015.10.107   
17. Brubaker ML, Luetmer MT, Reeves RK. Clinical features and inpatient rehabilitation outcomes of infection-related myelopathy. Spinal Cord 2017 Mar; 55 (3):264-268 Epub 2016 Aug 02 PMID:27481089 DOI:10.1038/sc.2016.115   
18. Hatch BB, Wood-Wentz CM, Therneau TM, Walker MG, Payne JM, Reeves RK. Factors predictive of survival and estimated years of life lost in the decade following nontraumatic and traumatic spinal cord injury. Spinal Cord 2017 Jun; 55 (6):540-544 Epub 2017 Feb 07 PMID:28169294 DOI:10.1038/sc.2016.182   
Books   
1. Mayo Clinic. A Patient's Guide to Spinal Cord Injury Reeves RK. Demos; 2009.   
2. Editorial Team Member for International Spinal Cord Society Comprehensive Textbook on Management of Spinal Cord Injuries 2015.   
Book Chapters   
1. Reeves R. Spinal cord injury medicine. In: Sinaki M. Basic Clinical Rehabilitation Medicine, 3rd Edition. 2004.   
2. Peter New, Ronald K Reeves, Ruth Marshall. Prevention of Non Traumatic Spinal Cord Injury. ISCOS Textbook of Comprehensive Management of Spinal Cord Injuries. 2015   
Audio/Video/CD-ROM/etc.   
1. Brown R, Christopherson M, Reeves R, Rohe D, Beck L, Scroggins, L. Feeling Your Way Relationships and Sexuality After Spinal Cord Injury Mayo Clinic Patient Education (MC6836). January 2012.   
2. Reeves R. Diaphragm Pacing. Mayo Clinic Patient Education (MC6949). June 2012.   
Selected Presentations:   
Doctor Reeves has participated in over 70 national and international conferences as a moderator, session chair, or presenter, including several as an invited presenter.   
1. Nontraumatic spinal cord injury classification in a large United States medical center. International Spinal Cord Society Annual Meeting, Durban, South Africa, September 2008.   
2. US Marketing for hospitals and rehabilitation. What is really important? 7th European Health Care Congress. Munich, Germany September 2008   
3. Managing in Managed Care in Minnesota. 7th European Health Care Congress. Munich, Germany September 2008   
4. A Web-Based Training System for the International Standards for the Neurological Classification of Spinal Cord Injury. 5th World Congress of the International Society of Physical and Rehabilitation Medicine, Istanbul, Turkey, June, 2009   
5. A Web-Based Training System for the International Standards for the Neurological Classification of Spinal Cord Injury. 48th Annual Scientific Meeting of the International Spinal Cord Society, Florence, Italy, October 2009.   
6. Mayo Clinic Health Policy Center Recommendations for US Health Care Reform. European Health Care Congress Munich, Germany, October 2009   
7. Improving Patient Satisfaction through Bedside Interdisciplinary Rounds at a Large Academic Inpatient Rehabilitation Unit. Australia and New Zealand Spinal Cord Society Meeting, Brisbane Australia, October 2011.   
8. Spinal Cord Injury Autonomic Standards Documentation by Physicians During Inpatient Rehabilitation. Australia and New Zealand Spinal Cord Society Meeting, Brisbane Australia, October 2011   
9. Comprehensive Management of Spinal Cord Injury. Indian Spinal Injuries Centre, New Delhi, India, April 2012.   
10. Systems of Care for Spinal Cord Injury. Workshop at 11th Asian Spinal Cord Network Conference. Kuala Lumpur, Malaysia, December 2012.   
11. Workshop on Spasticity. Workshop at 11th Asian Spinal Cord Network Conference. Kuala Lumpur, Malaysia, December 2012.   
12. Workshop on Respiratory Care in Tetraplegia. Workshop at 11th Asian Spinal Cord Network Conference. Kuala Lumpur, Malaysia, December, 2012.   
13. International Retrospective Comparison of Non-Traumatic Spinal Cord Injury Rehabilitation Outcomes. 51st Annual Scientific Meeting of the International Spinal Cord Society, London, United Kingdom, September 2012.   
14. Project Overview and Initial Results from the International Non-Traumatic Spinal Cord Injury Study Group. Neurorehabilitation Summit, Rochester, MN, October 2012.   
15. Care delivery process improvement projects for complex spine hospital inpatient care. Mayo Clinic Annual Multidisciplinary Spine Conference, Scottsdale, Arizona, January 2013.   
16. A review of vascular spinal cord injury functional outcomes 1995-2010. ISCoS and ASIA Joint Scientific Meeting, Montral, Canada, May 2015   
17. Overview of the ASIA Learning Center. The 10 year journey...2005-2015. ISCoS and ASIA, Montreal, Canada, May 2015.   
18. Lauch of the African Spinal Injury Network. ISCOS Vienna, Austria. 2016.   
19. Fibrocartigenous Embolic Myelopathy Demographics & Outcomes Canadian Society of PMR, 2017.

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**Clinical Trials 360°, sponsored by Spinal Cord Outcomes Partnership Endeavor (SCOPE)**

Wednesday, May 02, 2018 01:45 PM - 03:15 PM

***Linda Jones, MS, PT***  
Craig H. Neilsen Foundation

**CV:**  
Biographical Sketch   
Name: Linda Ann Truett Jones-Norse   
Position Title: Program Officer, Craig H. Neilsen Foundation   
  
A. Personal Statement   
  
A physical therapist by training, I have an established career in spinal cord injury (SCI) research, in clinical trial management and as a Program Officer managing a translation research portfolio. Throughout my career I have had an interest in outcomes research. My master’s thesis, “Reliability and Validity of the Acute Care Index of Function in the Critically Ill”, established psychometrics for a functional outcome measure in the intensive care unit. After leaving clinical practice, I managed the first two cell based SCI studies, developing the skills to oversee large and complex projects. I also learned about the challenges and importance of the appropriate use of functional outcomes in clinical trials and sit on a number of committees and working groups addressing these challenges.   
  
Currently, I manage a translation research portfolio at the Craig H. Neilsen Foundation. In this position, I have the opportunity to see the latest pre-clinical and clinical research directions, identify gaps in the field and consider ways in which they can be addressed.   
  
My current focus through the Spinal Cord Outcomes Partnership Endeavor (SCOPE), Spinal Cord Injury   
Trials Toolkit (SCITT) and Spinal Trials Understanding Design and Implementation (STUDI) is in clinical trial design, outcomes and execution. Through my doctoral dissertation work, I am exploring methods to support the analysis of multiple large spinal cord injury databases.   
  
  
  
B. Positions and Honors   
1990 – 1994 Staff Physical Therapist, Denver General Hospital, Denver, Colorado   
1994 – 2000 Senior Physical Therapist, Denver General Hospital, Denver, Colorado   
1993 – 2002 Coordinator of Intensive Care Unit Physical Therapy, Denver General Hospital, Denver, Colorado   
2000 – 2002 Inpatient Physical Therapy Coordinator, Denver General Hospital, Denver, Colorado   
2002 – 2003 U.S. Study Coordinator, Proneuron Biotechnologies, Denver, Colorado/ Ness-Ziona, Israel   
2003 – 2004 U.S. Clinical Program Manager, Proneuron Biotechnologies, Denver, Colorado/Ness-Ziona, Israel   
2004 – 2006 Clinical Trial Manager, Proneuron Biotechnologies, Denver, Colorado/ Ness-Ziona, Israel   
2006 – 2009 Clinical Trial Manager, Regenerative Medicine, Geron Corporation, Menlo Park, California   
2009 – 2011 Senior Clinical Trial Manager, Regenerative Medicine, Geron Corporation, Menlo Park, California   
2012 – 2013 Clinical Research Consultant, Spinal Cord Injury, Boulder, Colorado   
2013 – Program Officer, Craig H. Neilsen Foundation, Encino, California   
2014 – PhD student, Clinical Sciences, Clinical Investigation track, University of Colorado, Denver, Colorado   
  
Honors   
2008 – 2015 Member, American Spinal Injury Association, Education Committee   
2008 – Member, American Spinal Injury Association, International Standards Committee   
2009 – Member, Spinal Cord Injury Outcomes Endeavor   
2013 – Member, American Spinal Injury Association, International Standards Research Sub-Committee   
2012 – Steering Committee, National Institute of Neurological Disorders and Stroke, Common Data Elements for Spinal Cord Injury   
2014 – Member, International Spinal Cord Injury Society, Scientific Committee   
2015 – Vice Chair, American Spinal Injury Association, Research and Awards Committee   
2016 – Participant in development of a spinal cord injury rehabilitation core dataset   
2017 - Member, Spinal Cord Injury Trials Toolkit Group   
2018 - Member, Spinal Trials Understanding Design and Implementation   
  
C. Contributions to Science   
  
Clinical trials and development of tools to support clinical trials   
As a field, SCI is still developing in terms of initiating and completing clinical trials of drugs and biologics. I managed the first cell-based trial in spinal cord injury. Although the trial findings were equivocal, the study group disseminated trial findings after the study was closed, so the spinal cord injury community could benefit from the lessons learned. I led the publication on pragmatics, recruitment and demographics and participated in the analyses and publication of the safety and efficacy data. I subsequently managed another cell-based trial, and through my work with both of these trials, became aware of the critical need for tools to support clinical trials. I served on the Steering Committee and two working groups for the National Institute of Neurological Disorders and Stroke, Common Data Elements for SCI, recommending and, where needed, developing common tools/elements for use in SCI clinical trials. Recently, I contributed to the development of a novel linear scale for SCI, which uses items from existing measures to measure volitional motor performance following SCI.   
  
2010 Jones L, Lammertse D, Charlifue S, Kirshblum S, Apple D, Ragnarrson K, Poonian D, Betz R, Knoller N, Heary R, Choudri T, Jenkins III A, Falci S, Snyder D. A phase 2 autologous cellular therapy trial in patients with acute complete spinal cord injury: Pragmatics, Recruitment and Demographics. Spinal Cord. 2010;48:799-807. PMID: 20386555   
  
2012 Lammertse DP, Jones LA, Charlifue SB, Kirshblum SC, Apple DF, Ragnarsson KT, Falci SP, Heary RF, Choudhri TF, Jenkins AL, Betz RR, Poonian D, Cuthbert JP, Jha A, Snyder DA, Knoller N. Autologous incubated macrophage therapy in acute, complete spinal cord injury: results of the phase 2 randomized controlled multicenter trial. Spinal Cord. 2012;50(9):661-71. PMID:22525310   
  
2015 Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord. 2015 Apr;53(4):265-77. PMCID:PMC4393777   
  
2017 Reed R, Mehra M, Kirshblum S, Maier D, Lammertse D, Blight A, Rupp R, Jones L, Abel R, Weidner N, EMSCI Study Group, SCOPE, Curt A, Steeves J. Spinal cord ability ruler: an interval scale to measure volitional performance after spinal cord injury. Spinal Cord. 2017. (Epub ahead of print) PMID: 28322239   
  
  
Spinal cord injury assessment   
The most commonly used tool for assessing patients with SCI (International Standards for Neurological Classification of Spinal Cord Injury- ISNCSCI) was developed as a classification tool but is used in SCI research and clinical care. Despite its common use, there are challenges when using ISNCSCI in research and clinical settings. I first participated in a publication on the reliability and validity of ISNCSCI in 2008, based on findings of a clinical trial training that I organized. ISNCSCI was also assessed for use in clinical trials for thoracic SCI, based on a retrospective review of a clinical trial database. I was then asked to join the committee that considers revisions to ISNCSCI, from which multiple revisions and publications have ensued. I currently sit on the International Standards Research Sub-Committee, which specifically addresses the use of ISNCSCI for research.   
  
2008 Marino, R, Jones L, Kirshblum S, Tal Y, Dasgupta A. Reliability of the motor and sensory examination of the international standards for neurological classification of spinal cord injury. J Spinal Cord Med. 2008;31(2):166-170. PMID: PMC2565479   
  
2009 Harrop J, Maltenfort M, Geisler F, Coleman W, Jones L, Wirth E. Traumatic thoracic ASIA A examinations and potential for clinical trials. Spine. 2009;34:2525-2529. PMID:19927102   
  
2011 Kirshblum S, Burns S, Biering-Sorensen F, Donovan W, Graves D, Jha A, Johansen M, Jones L, Krassioukov, A, Mulcahey, MJ, Schmidt-Read M, Waring W. International standards for neurological classification of spinal cord injury (Revised 2011). J Spinal Cord Med. 2011;34(6):535-546. PMCID: PMC3232636   
  
2014 Kirshblum SC, Biering-Sorensen F, Betz R, Burns S, Donovan W, Graves DE, Johansen M , Jones L, Mulcahey MJ, Rodriguez GM, Schmidt-Read M, Steeves JD, Tansey K, Waring W. International Standards for Neurological Classification of spinal cord injury: cases with classification challenges. J Spinal Cord Med. 2014;37(2):120-7. PMCID:PMC4066420   
  
  
History of recovery of neurological function from spinal cord injury databases   
Examination of existing databases has provided the opportunity to understand the history of natural recovery and consider clinical trial endpoints based on these data. Additionally, these data were used to develop novel statistical approaches to stratify patient groups by common characteristics, to improve clinical trial design. I have contributed to a series of publications using data from the European Multicenter Study about Spinal Cord Injury, resulting in the recommendation of a clinical trial endpoint in cervical sensorimotor complete SCI. The proposed Center for Large Data Research and Data Sharing in Rehabilitation project to develop a crosswalk between two SCI functional outcome measures is a critical step to expanding this prior work by including data from different databases and developing clinical trial endpoints for diverse SCI populations.   
  
2011 Steeves J, Kramer J, Fawcett J, Cragg J, Lammertse D, Blight A, Marino R, Ditunno J, Coleman W, Geisler F, Guest J, Jones L, Burns S, Schubert M, van Hedel H, Curt A for the EMSCI Study Group. Extent of spontaneous motor recovery after traumatic cervical sensorimotor complete spinal cord injury. Spinal Cord. 2011:49(2):257-265. PMID: 20714334   
  
2011 Zariffa J, Kramer J, Fawcett J, Lammertse D, Blight A, Guest J, Jones L, Burns S, Schubert M, Bolliger M, Curt A, Steeves J. Characterization of neurological recovery following traumatic sensorimotor complete thoracic spinal cord injury. Spinal Cord. 2011 Mar;49(3):463-71. PMID: 20938451   
  
2012 Steeves JD, Lammertse DP, Kramer JL, Kleitman N, Kalsi-Ryan S, Jones L, Curt A, Blight AR, Anderson KD. Outcome measures for acute/subacute cervical sensorimotor complete (AIS-A) spinal cord injury during a phase 2 clinical trial.Top Spinal Cord Inj Rehabil. 2012 Winter;18(1):1-14. PMCID:   
PMC3519288   
  
2015 Tanadini LG, Hothorn T, Jones LA, Lammertse DP, Abel R, Maier D, Rupp R, Weidner N, Curt A, Steeves JD. Toward inclusive trial protocols in heterogeneous neurological disorders: prediction-based stratification of participants with incomplete cervical spinal cord injury.Neurorehabil Neural Repair. 2015 Oct;29(9):867- 77. PMID:25644238

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**Opposing views – Re-use of catheters: Yea or Nay**

Wednesday, May 02, 2018 04:40 PM - 05:40 PM

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Professor Krassioukov is a clinician-scientist and an internationally recognised leading expert in the area of autonomic dysfunctions following spinal cord injury (SCI). He obtained his MD degree in Russia, followed by successful PhD training and thesis defence at the Ivan Pavlov Institute of Physiology, St Petersburg, Russia.   
  
He is currently a professor at the Division of Physical Medicine and Rehabilitation, Department of Medicine, and co-director and a scientist at the International Collaboration on Repair Discovery (ICORD) at the University of British Columbia (UBC), Vancouver, BC, Canada. Dr. Krassioukov holds an endowed Chair in Spinal Cord Rehabilitation Research, UBC. He is also a staff physician at the SCI program at the GF Strong Rehabilitation Centre in Vancouver. Globally he is involved in leading organisations with focus on SCI, Including: Chair of the International Autonomic Standards Committee for the American Spinal Injury Association and International Spinal Cord Society (ASIA/ISCoS); Member of ISCOS Council; President elect of ASIA. Dr. Krassioukov’s research is supported by grants from the Canadian Institute for Health Research, Canadian Heart and Stroke Foundation, Canadian Foundation for Innovation, Rick Hansen Institute, H. Craig Neilsen Foundation, Christopher and Dana Reeve Foundation, Wings for Life and many others. He has published more than 220 peer-reviewed manuscripts, books, book chapters and reviews. He is a member of numerous advisory boards for the international agencies involved in research in the area of SCI and disability. Dr. Krassioukov’s work in the area of SCI has been recognised through numerous national and international awards including the inaugural Alan Brown Award from ASIA. In recognition of his research excellence and leadership he was elected as a fellow of the Canadian Academy of Health Sciences.   
  
POSITIONS   
  
2010 - Present   
Professor, Department of Medicine, Division of Physical Medicine and Rehabilitation,   
University of British Columbia, Vancouver, BC, Canada   
  
2008 - Present   
Associate Director, Rehabilitation, International Collaboration on Repair Discoveries   
(ICORD), UBC, Vancouver, BC, Canada   
  
2007 - Present   
Staff Physician, Spinal Cord Injury Program, Physical Medicine and Rehabilitation,   
Vancouver Acute (GF Strong), in the Department of Medicine, Division of Physical   
Medicine and Rehabilitation, Vancouver, BC, Canada   
  
2003 - Present   
Scientist, International Collaboration on Repair Discoveries (ICORD), UBC, Vancouver,   
BC, Canada   
  
HONORS:   
2014 / Endowed Chair in Spinal Cord Rehabilitation Research. International   
Collaboration on Repair Discoveries, University of British Columbia   
2014 / Horizon Interactive Awards, Bronze in Health/Human Services   
2014 / Horizon Interactive Awards, Bronze in Training/E-learning   
  
Publications   
  
2013 Peer Reviewed Manuscripts   
1. West CR, Alyahya A, Laher I, Krassioukov A. Peripheral vascular function in spinal cord injury: a systematic review. Spinal Cord. 2013 Jan; 51(1):10-9. (IF 1.9).   
2. West CR, Romer LM, Krassioukov A. Autonomic function and exercise performance in elite athletes with cervical spinal cord injury. Medicine and Science in Sports and Exercise. 2013 Feb; 45(2):261-7. (IF 5.3).   
3. Chhabra HS, Harvey LA, Muldoon S, Chaudhary S, Arora M, Brown DJ, Biering-Sorensen F, Wyndaele JJ, Charlifue S, Horsewell J, Ducharme S, Green D, Simpson D, Glinsky J, Weerts E, Upadhyay N, Aito S, Wing P, Katoh S, Kovindha A, Krassioukov A, Weeks C, Srikumar V, Reeves R, Siriwardane C, Hasnan N, Kalke YB, Lanig I. www.elearnSCI.org: a global educational initiative of ISCoS. Spinal Cord. 2013 Mar; 51(3):176-82. – 2014 Award winning manuscript. (IF 1.9).   
4. Tang A, Eng JJ, Tsang TS, Krassioukov AV. Cognition and motor impairment correlates with exercise test performance after stroke. Medicine and Science in Sports and Exercise. 2013 Apr; 45(4):622-7. (IF 5.3).   
5. Wong S, Bredin S, Krassioukov A., Taylor A, Warburton D. Effects of training status on arterial compliance in able-bodied persons and persons with spinal cord injury. Spinal Cord. 2013 Apr; 51(4):278-81. (IF 1.9).   
6. Phillips AA, Krassioukov AV, Zheng MM, Warburton DE. Neurovascular coupling of the posterior cerebral artery in spinal cord injury: a pilot study. Brain Sciences. 2013 May 8; 3(2):781-9. (IF 2.5).   
7. Furlan JC, Sakakibara BM, Miller WC, Krassioukov AV. Global incidence and prevalence of traumatic spinal cord injury. Canadian Journal of Neurological Sciences. 2013 Jul; 40(4):456-64. (IF 1.1).   
8. Cragg JJ, Krassioukov AV. Pearls and oysters: transient Horner syndrome associated with autonomic dysreflexia. Neurology. 2013 Aug 6; 81(6):e35-7. (IF 8.3).   
9. Cragg JJ, Noonan VK, Krassioukov A, Borisoff J. Cardiovascular disease and spinal cord injury: results from a national population health survey. Neurology. 2013 Aug 20; 81(8):723-8. (IF 8.3)   
10. Lam T, Chen Z, Sayed-Ahmed MM, Krassioukov A, Al-Yahya AA. Potential role of oxidative stress on the prescription of rehabilitation interventions in spinal cord injury. Spinal Cord. 2013 Sep; 51(9):656-62. (IF 1.9).   
11. Phillips AA, Ainslie P, Krassioukov AV, Warburton DE. Regulation of cerebral blood flow after spinal cord injury. Journal of Neurotrauma. 2013 Sep 15; 30(18): 1551-63. (IF 4.3).   
12. West CR, Bellantoni A, Krassioukov AV. Cardiovascular function in individuals with incomplete spinal cord injury: a systematic review. Topics in Spinal Cord Injury Rehabililitation. 2013 Fall; 19(4):267-78. (IF 1.3).   
13. Liu N, Krassioukov AV. Postpartum hypogalactia in a woman with Brown-Séquard-plus syndrome: a case report. Spinal Cord. 2013 Oct; 51(10):794-6. (IF 1.9).   
14. Liu N, Zhou MW, Krassioukov AV, Biering-Sørensen F. Training effectiveness when teaching the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI) to medical students. Spinal Cord. 2013 Oct; 51(10):768-71. (IF 1.9).   
15. Hector SM, Biering-Sørensen T, Krassioukov A, Biering-Sørensen F. Cardiac arrhythmias associated with spinal cord injury. The Journal of Spinal Cord Medicine. 2013 Nov; 36(6):591-9. (IF 2.1).   
16. Liu N, Fougere R, Zhou MW, Nigro MK, Krassioukov AV. Autonomic dysreflexia severity during urodynamics and cystoscopy in individuals with spinal cord injury. Spinal Cord. 2013 Nov; 51(11):863-7. (IF 1.9).   
17. Cragg JJ, Noonan VK, Dvorak M, Krassioukov A, Mancini GB, Borisoff JF. Spinal cord injury and type 2 diabetes: results from a population health survey. Neurology. 2013 Nov 19; 81(21):1864-8. (IF 8.3).   
  
2014 Peer Reviewed Manuscripts   
18. Wan D, Krassioukov AV. Life-threatening outcomes associated with autonomic dysreflexia: a clinical review. The Journal of Spinal Cord Medicine. 2014 Jan; 37(1):2-10. (IF 2.1).   
19. West CR, Wong SC, Krassioukov AV. Autonomic cardiovascular control in Paralympic athletes with spinal cord injury. Medicine and Science in Sports and Exercise. 2014 Jan; 46(1):60-8. (IF 5.3).   
20. Tang A, Eng JJ, Brasher PM, Madden KM, Mohammadi A, Krassioukov AV, Tsang TS. Physical activity correlates with arterial stiffness in community-dwelling individuals with stroke. Journal of Stroke and Cerebrovascular Diseases. 2014 Feb; 23(2):259-66. (IF 1.9).   
21. Liu N, Krassioukov AV. Response to ‘Breastfeeding by women with tetraplegia: some evidence for optimism’. Spinal Cord. 2014 Mar; 52(3):256. (IF 1.9).   
22. Bartholdy K, Biering-Sørensen T, Malmqvist L, Ballegaard M, Krassioukov A, Hansen B, Svendsen JH, Kruse A, Welling KL, Biering-Sørensen F. Cardiac arrhythmias the first month after acute traumatic spinal cord injury. The Journal of Spinal Cord Medicine. 2014 Mar; 37(2):162-70. (IF 2.1).   
23. Phillips AA, Krassioukov AV, Ainslie PN, Warburton DE. Perturbed and spontaneous regional cerebral blood flow responses to changes in blood pressure after high level spinal cord injury: the effect of midodrine. Journal of Applied Physiology (1985). 2014 Mar 15; 116(6):645-53. (IF 3.4).   
24. Currie KD, Hubli M, Krassioukov AV. Applanation tonometry: a reliable technique to assess aortic pulse wave velocity in spinal cord injury. Spinal Cord. 2014 Apr; 52(4):272-5. (IF 1.9).   
25. West CR, Crawford MA, Poormasjedi-Meibod MS, Currie KD, Fallavollita A, Yuen V, McNeill JH, Krassioukov AV. Passive hind-limb cycling improves cardiac function and reduces cardiovascular disease risk in experimental spinal cord injury. The Journal of Physiology. 2014 Apr 15; 592(8):1771-83. (IF 3.4).   
26. Phillips AA, Warburton DE, Ainslie PN, Krassioukov AV. Regional neurovascular coupling and cognitive performance in those with low blood pressure secondary to high-level spinal cord injury: improved by alpha-1 agonist midodrine hydrochloride. Journal of Cerebral Blood Flow and Metabolism. 2014 May;34(5):794-801. (IF 5.4).   
27. Hubli M, Krassioukov AV. Ambulatory blood pressure monitoring in spinal cord injury: clinical practicability. Journal of Neurotrauma. 2014 May 1;31(9):789-97. (IF 4.3).   
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33. West CR, Crawford MA, Poormasjedi-Meibod M-S, Currie KD, Yuen VG, McNeill JH, Krassioukov AV. A Novel Mechanistic Insight Into Cardiac Dysfunction After Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P20.   
34. Popok DW, West CR, Crawford MA, Krassioukov AV. Spontaneous Episodes of Autonomic Dysreflexia and Circadian Oscillations in Autonomic Functions Following Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P21.   
35. Phillips AA, Warburton DER, Ainslie PN, Krassioukov AV. Neurovascular Coupling and Cognitive Performance is Enhanced by Acutely Increasing Blood Pressure in Those With High Level Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P21.   
36. Davidson RA, Carlson M, Krassioukov AV, Noonan VK, Elliott SL. Interrater Reliability of the Bladder, Bowel and Sexual Function Section of the International Standards to Document Remaining Autonomic Function Following Spinal Cord Injury (ISAFSCI). ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P25.   
37. Fougere RJ, Nigro MK, Rapoport D, Krassioukov AV. Effect of Intravesical Onabotulinumtoxin. A Treatment on Autonomic Dysreflexia Following Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P55.   
38. Fougere RJ, Liu N, Zhou M, Krassioukov AV. Cardiovascular Parameter Changes in Individuals With Spinal Cord Injury: A Retrospective Review. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P71.   
39. Gray D, Hubli M, Krassioukov AV, Patricia Mills. Transcranial Electrical Stimulation Improves Orthostatic Hypotension Secondary to Traumatic Cervical Spinal Cord Injury: A Case Study. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P71.   
40. Cragg JJ, Noonan VK, Dvorak M, Krassioukov A, Mancini G.B. J. Spinal Cord Injury and Type 2 Diabetes: Results From a Population Health Survey. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P79.   
41. Huang D., Oxciano P., Yan D., Harkema S., Andrei Krassioukov. Incidence of neurogenic shock in the emergency department following acute spinal cord injury. Canadian Association of Emergency Physicians 2014 National Conference. Ottawa, ON, Canada. May 31-Jun 4, 2014   
42. Fougere RJ, Nigro MK, Rapoport D, Krassioukov AV. Effect of intravesical Botox treatment on autonomic dysreflexia following spinal cord injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
43. Currie KD, Cotie LM, Hubli M, West CR, Assinck P, MacDonald MJ, Krassioukov AV. Preservation of brachial artery endothelial function in Paralympic athletes. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014. Best Presentation – 2nd Place.   
44. West CR, Crawford MA, Krassioukov AV. Effect of Passive Hind Limb Cycling on Cardiovascular Function Following Acute or Chronic Experimental Spinal Cord Injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
45. McCracken LA, West CR, Phillips AA, Krassioukov AV. Effect of Induced Autonomic Dysreflexia on Cardiac Function Following Experimental Spinal Cord Injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
46. Berger MJ, Hubli M and Krassioukov AV. Sympathetic Skin Responses and Autonomic Dysfunction in Spinal Cord Injury. 62nd Canadian Association of Physical Medicine and Rehabilitation Annual Scientific Meeting, St. John's, NFLD. June18-21, 2014.   
47. Currie KD, Hubli M, Gee CM, West CR, Krassioukov AV. Sex-specific differences in cardiovascular parameters in spinal cord injured individuals. North American Artery Annual Conference. Chicago, IL.USA, September 5-6, 2014.   
48. Cragg JJ\*, Kramer JK, Noonan VK, Krassioukov A, Mancini GBJ, Noreau L, Patrick D, Borisoff JF. Risk and mechanisms of cardiovascular disease following spinal cord injury: national health studies. 2nd International Spinal Cord Injury & Neurotrauma Summer School 2014, Toledo, Spain.   
49. Cragg JJ\*, Noonan VK, Krassioukov A, Mancini GBJ, Noreau L, Patrick D, Borisoff JF. Spinal cord injury and cardiovascular disease: a national health study on risk and mechanisms. 6th National Spinal Cord Injury Conference 2014, Toronto, Ontario. Oct 3-4, 2014. Journal of Spinal Cord Medicine [Poster and Oral Presentation] Top Abstract Award.   
50. Currie KD, West CR, Hubli M, Gee CM, and Krassioukov AV. Peak exercise heart rates and sympathetic function: a comparison between athletes and non-athletes with spinal cord injury. Abstract published in Spinal Cord Injury Rehabilitation 2014; 20(S1): 17-18. American Spinal Injury Association (ASIA) 2014 Annual Meeting, San Antonio, Texas, May 14-17, 2014. Oral Presentation.   
51. Currie KD, Hubli M, Gee CM, West CR, and Krassioukov AV. Sex-specific differences in cardiovascular parameters in spinal cord injured individuals. North American Artery Fourth Annual Meeting, Chicago, Illinois, USA, September 5-6 2014. Poster presentation.   
52. Currie KD, Cotie LM, Hubli M, West CR, Assinck P, MacDonald MJ, and Krassioukov AV. Preservation of brachial artery endothelial function in Paralympic athletes. 2014 ICORD Trainee Research Symposium, Vancouver, BC, Canada. June 3-4 2014. Best presentation, 2nd place.   
53. Martin Ginis KA, Tomasone JR, Welsford M, Ethans K, Krassioukov A. “ABCs of AD”: Online Training Module Enhances Paramedics’ Knowledge and Social Cognitions Regarding Use of AD Clinical Practice Guidelines. 4th ISCoS and ASIA Joint Scientific Meeting, Montreal, Quebec, May 14-16, 2015.   
2015   
54. Round AM, Walden K, Noonan VK, Krassioukov AV. An Evaluation of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury (ISAFSCI): Input from the International SCI Community. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
55. Zheng MMZ, Phillips AA, Krassioukov AV. Impaired endothelial function in rat femoral artery after spinal cord injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. W.L. McLeod Award for best poster by a trainee at the Masters or undergrad level, 1st place.   
56. Frias B, Krassioukov A. “Fast and Slow”: bowel dysfunction in spinal cord injured animals. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
57. Currie KD, Krassioukov AV. A Walking Disaster: A Case of Motor-Incomplete Spinal Cord Injury with Severe Orthostatic Hypotension. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Best poster by Postdoc, 3rd place.   
58. Joo M, Krassioukov AV. From mouth to anus: obstacles in bowel function after spinal cord injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Best poster by Postdoc, 2nd place.   
59. McCracken LA, West CR, Currie KD, Hubli M, Krassioukov AV. Impaired Hemodynamic Responses to Cold Pressor Test in Athletes with High Paraplegia. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
60. Li GM, Currie KD, Hubli M, Gee CM, Krassioukov AV. Factors Influencing Augmentation Index in Individuals with Spinal Cord Injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
61. Phillips AA, Matin N, Frias B, Zheng A, Jia M, West CR, Dorrance A, Laher I, Galea L, Krassioukov AV. Impaired Cerebrovascular Health in Experimental Spinal Cord Injury: The Role of Autonomic Dysreflexia. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Gordon Hiebert Prize for best poster by Postdoc, 1st place.   
62. Squair JW, West CR, Assinck P, Liu J, Krassioukov AV. A Clinically Relevant Rodent Contusion Model to Investigate Cardiovascular Dysfunction Following Spinal Cord Injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. ICORD Award for best poster by a staff member, 3rd place.   
63. Squair JW, Reeybe R, Vorobeychik V, West CR, Krassioukov AV. Assessment of Autonomic Dysfunction in Multiple Sclerosis with and without Spinal Cord Involvement. GF Strong Research Round. Vancouver, BC, Canada. March 25, 2015.   
64. Zbogr D, Eng JJ, Noble JW, Miller WC, Krassioukov AV, Verrier MC. Cardiovascular Stress During Inpatient Spinal Cord Injury Physical and Occupational Therapy. American Congress Of Rehabilitation Medicine (ACRM). Dallas, TX, USA. October 25-30, 2015.   
65. Zheng MMZ, Phillips AA, Laher I, Krassioukov AV. Impaired endothelial function in rat femoral artery after spinal cord injury. The Institute for Heart and Lung Health’s FEST 2015 Heart & Lung Health Scientific Symposium. Vancouver, BC, Canada. Mar 26-27, 2015. Best poster (one of six awards) in the categories of Heart/Lung/Others (top two posters awarded for each category).   
66. Phillips AA, Matin N, Frias B, Zheng MMZ, Galea LA, Dorrance AM, Krassioukov AV. The role of autonomic dysreflexia in cerebrovascular health and cognition after spinal cord injury. GF Strong Rehabilitation Centre Annual Research Day. Vancouver, BC, Canada. April 22, 2015. The Best Overall Podium Presentation and Best Postdoctoral Fellow Podium Presentation.   
67. Currie KD, Krassioukov AV. A walking disaster: a case of motor-incomplete spinal cord injury with severe orthostatic hypotension. GF Strong Rehabilitation Centre Annual Research Day, April 22, 2015, Vancouver. The Best Post Doctoral Fellow Poster.   
68. Klassen TD, Eng JJ, Bayley M, Benavente O, Bennett J, Fraser J, Hill M, Krassioukov A, Metzler M, Piitz M, Reimer E, Rowe S, Yao J, Dukelow S. Implementing An Extra Hour of Intensive, Task-Specific, Physical Therapy Daily for Individuals Post-Stroke During Inpatient Rehabilitation: Feasibility Data from the DOSE Study. 2015 Canadian Stroke Congress. Toronto, Ontario. Sep. 17-19, 2015.   
69. Fougere R, Currie K, Stothers L, Nigro M, Rapaport D, and Krassioukov A. Effect of OnabotulinumtoxinA treatment for neurogenic detrusor over activity on the prevention of autonomic dysreflexia following spinal cord injury. The Journal of Urology 2015; 193(4S): e37.   
70. Currie KD, West CR, and Krassioukov AV. Enhanced diastolic mechanics prevents diastolic dysfunction in Paralympians with tetraplegia. Applied Physiology, Nutrition, and Metabolism 2015; 40(9 S1): S15.   
71. Hubli M, Currie KD, West CR, Gee CM, and Krassioukov AV. Arterial stiffness after spinal cord injury: athletes versus non-athletes. Topics in Spinal Cord Injury Rehabilitation 2014; 20(S1): 17.   
72. West CR, Crawford MA, Poormasjedi-Meibod MS, Currie KD, Yuen VG, McNeill JH, and Krassioukov AV. A novel mechanistic insight into cardiac dysfunction after spinal cord injury. Topics in Spinal Cord Injury Rehabilitation 2014; 20(S1): 20.   
  
2016   
73. Zheng MM, Phillips AA, Golbidi S, Laher I, and Krassioukov A. Above and Below: Impaired Endothelial Funciton in Rat Femoral Artery after Spinal Cord Injury is Reversed with Passive Exercies. ASIA 2016 Annual ScientifcMeeting, Philadelphia, PA, USA. April 14-16 2016.   
74. Popok D. Characterizing the Severity of Autonomic Cardiovascular Dysfuction in SCI Patients Using a Novel 24-hour Ambulatory Blood Pressure Monitoring Software. ASIA 2016 Annual ScientifcMeeting, Philadelphia, PA, USA. April 14-16 2016.   
75. Holmgren T, Hocaloski S, Hamilton L, Hellsing I, Elliott, S, Hultling C, and Krassioukov A. Impact of Spinal Cord Injury on the ability to breastfeed. ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.   
76. Phillips A, Squair J, Currie K, Tzeng SC, Ainslie PN; Chan F, Krassioukov A. 2015 ParaPan American Games: Does Physical Activity Improve Cerebrovascular Function after High-Level Spinal Cord Injury? ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.   
77. Jia M, Phillips A, Yung A, Kozlowski P, and Krassiuokov A. Cerebrovascular Endothelial Function is Impaired after Experimental Spinal Cord Injury. ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.

***Michael Kennelly, MD, FACS***  
Department of Urology, Carolinas Medical Center

**CV:**  
POSITIONS:   
  
1995 - present   
Carolinas Rehabilitation - Director/ Urology   
Carolinas Medical Center - Professor/Division of Urology   
Carolinas Medical Center - Mercy - Active Staff   
Carolinas Medical Center – Pineville - Courtesy Staff   
Carolinas Medical Center – University – Courtesy Staff   
Novant Presbyterian Hospital - Courtesy Staff   
Novant Presbyterian-Orthopedic Hospital – Courtesy Staff   
Novant Presbyterian – Huntersville Hospital – Courtesy Staff   
  
2010 - present   
Carolinas Specialty Surgical Center – Staff   
Co-Director, Women’s Center for Pelvic Health   
Director, Charlotte Continence Center   
Facility Medical Director – Female Pelvic Medicine McKay Urology   
  
HONORS:   
2014 Best Doctors in America, Recipient   
2014 Vitals Top 10 Doctor, Recipient   
2014 Americas Top Doctors, Recipient   
2015 Best Podium Presentation Recipient, 4th Joint ISCoS and ASIA Meeting May 14-   
16, 2015, Montreal, Quebec, Canada   
2015 Best Doctors in America, Recipient   
2015 Americas Top Doctors, Recipient   
2016 Best Doctors in America, Recipient   
2016 Americas Top Doctors, Recipient   
  
MEMBERSHIPS IN PROFESSIONAL SOCIETIES:   
1985 – 2015 American Medical Association, Associate Member   
1989 – Present American Urologic Association, Member   
1991 – Present American College of Surgeons, Member   
1995 – Present Southeastern Section AUA, Associate Member   
1995 – Present Urodynamics Female Pelvic Medicine & Genitourinary Reconstruction   
- Member   
1995 – Present International Continence Society   
1995 – Present Mecklenberg County Medical Society   
1995 – Present North Carolina Urological Association   
1995 – Present Carolinas Urological Association   
1995 – Present American Paraplegia Society   
1995 – Present American Spinal Injury Association   
1995 – Present Interstitial Cystitis Association   
1995 – Present National Association for Continence/Help for Incontinent People   
1998 – Present Society Internationale d’Urologie   
2001 – Present American Association of Clinical Urologist   
2003 – Present American Urogynecology Society   
2006 – Present Society of Urologic Prosthetic Surgeons   
2008 – Present Society of Genitourinary Reconstructive Surgeons   
2009 – Present Academy of Spinal Cord Injury Professionals   
  
  
Publications   
1: Burks D, Rosenbury SB, Kennelly MJ, Fried NM. Selective laser vaporization of   
polypropylene mesh used in treatment of female stress urinary incontinence and   
pelvic organ prolapse: preliminary studies using a red diode laser. Lasers Surg   
Med. 2012 Apr;44(4):325-9. doi: 10.1002/lsm.22020. Epub 2012 Mar 16. PubMed PMID:   
22430642.   
  
  
2: Kennelly MJ, Moore R, Nguyen JN, Lukban J, Siegel S. Miniarc single-incision   
sling for treatment of stress urinary incontinence: 2-year clinical outcomes. Int   
Urogynecol J. 2012 Sep;23(9):1285-91. doi: 10.1007/s00192-012-1734-y. Epub 2012   
Apr 20. PubMed PMID: 22527540.   
  
  
3: Krassioukov A, Biering-Sørensen F, Donovan W, Kennelly M, Kirshblum S, Krogh   
K, Alexander MS, Vogel L, Wecht J; Autonomic Standards Committee of the American   
Spinal Injury Association/International Spinal Cord Society. International   
standards to document remaining autonomic function after spinal cord injury. J   
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4: Moore RD, De Ridder D, Kennelly MJ. Two-year evaluation of the MiniArc in   
obese versus non-obese patients for treatment of stress urinary incontinence. Int   
J Urol. 2013 Apr;20(4):434-40. doi: 10.1111/j.1442-2042.2012.03147.x. Epub 2012   
Sep 19. PubMed PMID: 22989174.   
  
  
5: Kennelly M, Dmochowski R, Ethans K, Karsenty G, Schulte-Baukloh H, Jenkins B,   
Thompson C, Li D, Haag-Molkenteller C. Long-term efficacy and safety of   
onabotulinumtoxinA in patients with urinary incontinence due to neurogenic   
detrusor overactivity: an interim analysis. Urology. 2013 Mar;81(3):491-7. doi:   
10.1016/j.urology.2012.11.010. Epub 2013 Jan 3. PubMed PMID: 23290144.   
  
  
6: Kurpad R, Kennelly MJ. The evaluation and management of refractory neurogenic   
overactive bladder. Curr Urol Rep. 2014 Oct;15(10):444. doi:   
10.1007/s11934-014-0444-z. Review. PubMed PMID: 25118853.   
  
  
7: Contributors:, Krassioukov A, Biering-Sorensen CF, Donovan W, Kennelly M,   
Kirshblum S, Krogh K, Alexander MS, Vogel L, And Wecht J. International Standards   
to document remaining Autonomic Function after Spinal Cord Injury (ISAFSCI),   
First Edition 2012. Top Spinal Cord Inj Rehabil. 2012 Summer;18(3):282-96. doi:   
10.1310/sci1803-282. PubMed PMID: 23460763; PubMed Central PMCID: PMC3584776.   
  
  
8: Kennelly MJ. Synthetic Sling for Index Patients with Stress Urinary   
Incontinence: The Correct Choice. J Urol. 2015 Jul;194(1):18-9. doi:   
10.1016/j.juro.2015.04.063. Epub 2015 Apr 16. PubMed PMID: 25892140.   
  
  
9: Beusterien K, Kennelly MJ, Bridges JF, Amos K, Williams MJ, Vasavada S. Use of   
best-worst scaling to assess patient perceptions of treatments for refractory   
overactive bladder. Neurourol Urodyn. 2016 Nov;35(8):1028-1033. doi:   
10.1002/nau.22876. Epub 2015 Sep 14. PubMed PMID: 26370222.   
  
  
10: Kennelly M, Dmochowski R, Schulte-Baukloh H, Ethans K, Del Popolo G, Moore C,   
Jenkins B, Guard S, Zheng Y, Karsenty G; 191622-094 Investigators. Efficacy and   
safety of onabotulinumtoxinA therapy are sustained over 4 years of treatment in   
patients with neurogenic detrusor overactivity: Final results of a long-term   
extension study. Neurourol Urodyn. 2017 Feb;36(2):368-375. doi:   
10.1002/nau.22934. Epub 2015 Nov 24. PubMed PMID: 26607743.   
  
  
11: Hardy LA, Chang CH, Myers EM, Kennelly MJ, Fried NM. Computer simulations of   
thermal tissue remodeling during transvaginal and transurethral laser treatment   
of female stress urinary incontinence. Lasers Surg Med. 2017 Feb;49(2):198-205.   
doi: 10.1002/lsm.22491. Epub 2016 Feb 22. PubMed PMID: 26900038.   
  
  
12: Sukhu T, Kennelly MJ, Kurpad R. Sacral neuromodulation in overactive bladder:   
a review and current perspectives. Res Rep Urol. 2016 Oct 26;8:193-199.   
eCollection 2016. Review. PubMed PMID: 27822462; PubMed Central PMCID:   
PMC5087764.   
  
  
13: Denys P, Dmochowski R, Aliotta P, Castro-Diaz D, Blok B, Ethans K,   
Aboushwareb T, Magyar A, Kennelly M. Positive outcomes with first   
onabotulinumtoxinA treatment persist in the long term with repeat treatments in   
patients with neurogenic detrusor overactivity. BJU Int. 2017 Jun;119(6):926-932.   
doi: 10.1111/bju.13795. Epub 2017 Feb 26. PubMed PMID: 28139068.   
  
  
14: Chang CH, Myers EM, Kennelly MJ, Fried NM. Optical clearing of vaginal   
tissues, ex vivo, for minimally invasive laser treatment of female stress urinary   
incontinence. J Biomed Opt. 2017 Jan 1;22(1):18002. doi:   
10.1117/1.JBO.22.1.018002. PubMed PMID: 28301637; PubMed Central PMCID:   
PMC5228554.   
  
  
15: Cameron AP, Campeau L, Brucker BM, Clemens JQ, Bales GT, Albo ME, Kennelly   
MJ. Best practice policy statement on urodynamic antibiotic prophylaxis in the   
non-index patient. Neurourol Urodyn. 2017 Apr;36(4):915-926. doi:   
10.1002/nau.23253. Epub 2017 Mar 27. Review. PubMed PMID: 28345769.

***Matthias Walter, MD, FEBU***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Personal Statement   
  
Since November 2016, I am a postdoctoral research fellow (under mentorship of Dr. Krassioukov) at the autonomic research unit located within International Collaboration on Repair Discoveries (ICORD), University of British Columbia, in Vancouver, Canada.   
I am currently involved in numerous research studies and clinical trials focusing on amelioration of autonomic dysfunctions among individuals with spinal cord injury (SCI). The most noteworthy among these are the investigation on the effect of OnabotulinumtoxinA and Fesoterodine in management of neurogenic lower urinary tract dysfunctions NLUTD) to ameliorate life-threatening episodes of autonomic dysreflexia (AD), the characterization of urethral injuries in SCI wheel-chair athletes performing self-catheterization, and the development of an app called “ABC of AD” that instantly provides fundamental knowledge about AD to emergency room physicians.   
  
A. Positions and Honors   
  
Academic Positions   
11/16- Present Postdoctoral Fellow (Full-time), Department of Medicine, Division of Physical Medicine   
and Rehabilitation, University of British Columbia (UBC), Autonomic Research Unit, International Collaboration on Repair Discoveries (ICORD), Vancouver, BC, Canada   
01/16 – 10/16 Postdoctoral Associate affiliated with ICORD, UBC, Vancouver, BC, Canada   
01/14 – 10/16 Postdoctoral Associate, SCI Center and Research, Neuro-Urology, Balgrist University   
Hospital, Zurich, Switzerland   
12/11 – 12/13 Doctorate Candidate, SCI Center and Research, Neuro-Urology, Balgrist University   
Hospital, Zurich, Switzerland   
  
Hospital Positions   
10/16 – 10/16 Staff Urologist, Cantonal Hospital Aarau (Switzerland)   
12/14 – 09/16 Residency – Urology, Full-time, Cantonal Hospital Aarau (Switzerland)   
02/10 – 08/11 Residency – Urology, University Hospital Basel (Switzerland)   
01/09 – 01/10 Residency – Pediatric Surgery, University Children's Hospital Zurich (Switzerland)   
08/07 – 07/08 Residency – Urology, Cantonal Hospital Baden (Switzerland)   
07/06 – 06/07 Residency – General Surgery, Cantonal Hospital Frauenfeld (Switzerland)   
  
B. Honors/Appointments   
02/17 INTERNATIONAL AUTONOMIC AWARD – Best overall presentation at 4th International   
Autonomic Symposium in Vancouver, Canada.   
09/16 UROLOGIST – Swiss Board Examination in Urology   
09/16 FELLOW OF THE EUROPEAN BOARD OF UROLOGY (FEBU)   
10/15 CONFERENCE TRAVEL AWARD - International Continence Society (ICS), Conference travel award recipient podium presentation at the 45th annual ICS meeting in Montréal, Canada.   
04/14 BEST POSTER PRESENTATION - European Association of Urology (EAU), Best poster presentation during Session 62 "neurogenic bladder: diagnosis & treatment” held at the annual meeting of the EAU in Stockholm, Sweden.   
  
C. Contribution to Science   
02/17 WALTER M\*, LEITNER L.\*, JARRAHI B, WANEK J, DIEFENBACHER J, MICHELS L, LIECHTI MD, KOLLIAS SS, KESSLER TM, MEHNERT U. A mechatronic infusion drainage system: New ways to studies the human lower urinary tract in fMRI. BJU International (IF 4.387)   
  
10/16 WALTER M\*, LEITNER L.\*, SAMMER U, KNÜPFER SC, MEHNERT U, KESSLER TM. Urodynamic investigation: A sensible tool to define normal lower urinary tract function? PLOS ONE (IF 3.057)   
  
09/16 LEITNER L, GUGGENBÜHL-ROY S, KNÜPFER SC, WALTER M, SCHNEIDER MP, TORNIC J, SAMMER U, MEHNERT U, KESSLER TM. More Than 15 Years of Experience with Intradetrusor OnabotulinumtoxinA Injections for Treating Refractory Neurogenic Detrusor Overactivity: Lessons to Be Learned. European Urology (IF 14.976)   
  
09/16 LEITNER L, SAMMER U, WALTER M, KNÜPFER SC, SCHNEIDER MP, SEIFERT B, TORNIC J, MEHNERT U, KESSLER TM. Antibiotic prophylaxis may not be necessary in patients with asymptomatic bacteriuria undergoing intradetrusor onabotulinumtoxinA injections for neurogenic detrusor overactivity. Scientific Reports (IF 5.228)   
  
03/16 WALTER M, WETTERAUER C, BRUDER E, OBERMANN E, SUBOTIC S, WYLER S. Renal cell carcinoma in a young adult - Do we need further investigations? Urology Case Reports (IF, none yet - first to come in 2017)   
  
03/16 WALTER M\*, KNÜPFER SC\*, LEITNER L, MEHNERT U, SCHUBERT M, CURT A, KESSLER TM. Autonomic dysreflexia and repeatability of cardiovascular changes during same session repeat urodynamic investigation in women with spinal cord injury. World Journal of Urology (IF 2.397)   
  
10/15 WALTER M\*, SAMMER U\*, KNÜPFER SC, MEHNERT U, BODE-LESNIEWSKA B, KESSLER TM. Do we need surveillance urethro-cystoscopy in patients with neurogenic lower urinary tract dysfunction? PLOS ONE (IF 3.057)   
  
01/15 WALTER M, ALTERMATT S, FURRER C, MEYER-HEIM A. Intrathecal baclofen therapy in children with acquired brain injuries after drowning: a case series. Brain Injury (IF 1.822)   
  
08/14 WALTER M\*, LEITNER L\*, FREUND P, MEHNERT U, MICHELS L, KOLLIAS S, KESSLER TM. Protocol for a prospective magnetic resonance imaging study on supraspinal lower urinary tract control in healthy subjects and spinal cord injury patients undergoing intradetrusor onabotulinumtoxinA injections for treating neurogenic detrusor overactivity. BMC Urology (IF 1.937)   
  
05/14 WALTER M, MICHELS L, KOLLIAS S, VAN KERREBROECK PE, KESSLER TM, MEHNERT U. Protocol for a prospective neuroimaging study investigating the supraspinal control of lower urinary tract function in healthy controls and patients with non-neurogenic lower urinary tract symptoms. BMJ Open (IF 2.063)   
  
08/13 WALTER M, ALTERMATT S, FURRER C, MEYER-HEIM A. Intrathecal baclofen therapy in children with severe spasticity: Outcome and Complications. Developmental Neurorehabilitation (IF 1.475)   
  
12/12 WALTER M, SAMMER U, KESSLER TM. Chronic pelvic pain syndrome: neurostimulation, neuromodulation and acupuncture. Urologe A [in German]. (IF 0.456)   
  
  
D. Research Support   
  
Ongoing   
09/17 – Michael Smith Foundation for Health Research (MSFHR) Trainee Award (Postdoctoral Research Fellowship) co-funded with Rick Hansen Institute (RHI) – Principal Investigator: Matthias Walter (Supervisor Dr. Krassioukov).   
  
03/17 – Wellspect – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
Urethral injury and bladder function assessment following SCI.   
  
06/16 – Rick Hansen Institute – Principal Investigator: Dr. Steeves (I am a Co-Investigator).   
Gastrointestinal (GI) and Urinary Tract (UT) Microbiome (MICRO) after Spinal Cord Injury (SCI).   
  
02/16 – Rick Hansen Institute – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
Development of a mobile app (telephone/iPod application) for emergency medicine physician (EMP) on recognition and management of life threatening episodes of autonomic dysreflexia (AD): “ABC of AD for EMP".   
  
07/12 – Rick Hansen Institute – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
BOTOX treatment for neurogenic detrusor hyperreflexia and prevention of autonomic dysreflexia following spinal cord injury.   
  
Completed   
11/11 – 11/14 Swiss National Science Foundation. PhD Scholarship ($ 145,620 CAD).

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**Surgically implanted nerve cuff electrodes stabilize rapidly and preserve chronic nerve health in anatomically challenging locations**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Max Freeberg, Ph.D.***  
Case Western Reserve University

*(no CV uploaded)*

***Pinault Gilles, M.D.***  
Louis Stokes Cleveland Va Medical Center

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***Lisa Lombardo, MSPT***  
Louis Stokes Cleveland Va Medical Center

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***Tyler Dustin, Ph.D.***  
Case Western Reserve University/Cleveland Va Medical Center

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***Rahila Ansari, M.D.***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Ronald Triolo, Ph.D.***  
Case Western Reerve University/Cleveland Va Medical Center

**CV:**  
A. Personal Statement   
I am a Tenured Full Professor in the Department of Biomedical Engineering at Case Western Reserve University and serve as the Director of the Motion Study Laboratory (MSL) at the Louis Stokes Cleveland Veterans Affairs Medical Center, which is a state-of-the-art facility for the biomechanical and physiological analysis of human motion and rehabilitation outcomes for gait, posture, balance and activities of daily living after neuromuscular dysfunction. I am also a Senior Career Research Scientist and the Executive Director of the Advanced Platform Technology (APT) Center of Excellence in the VA Rehabilitation R&D Service, which is dedicated to creating new enabling medical technologies for individuals with spinal cord injury, hemiplegia, MS and lower limb amputation. Since joining the Case faculty, I have been the primary mentor to 26 pre-doctoral students and 8 post-doctoral fellows, and a member of the mentoring committees of 20 other trainees.   
I have been a researcher in the field of assistive, restorative and rehabilitative technologies for over 25 years. During this time I have conducted Phase II multicenter clinical feasibility trials of implanted neuroprostheses to provide people with paraplegia with options for exercise, standing and transfers, developed new selective peripheral neural interfaces (i.e., high density nerve cuff electrodes), pursued original research on systems to automatically regulating standing and seated balance, and designed powered exoskeletons for walking and stair climbing after paralysis, and explored new peripheral nerve approaches to restoring natural sensation to lower limb amputees. My research program has been sustained by continuous funding from the VA, NIH, DoD, DARPA, Craig H.Neilsen Foundation and USFDA.   
My trainees have gone on to earn tenure-track and research faculty positions at respected institutions such as The University of Pittsburgh, Stephens Institute of Technology, Catholic University of America, The State University of New York. Other trainees have become staff scientists in the intramural program of the NIH or the Shirley Ryan Abilities Laboratory (formerly the Rehabilitation Institute of Chicago). I serve as an active member of the Executive Committees for three NIH-funded training grants. Former mentees include the recipient of a NIH Post-Doctoral Fellowship (F32) for one MD/PhD and two SCI physician-researchers. My trainees are indicated below in boldface with post-doctoral trainees underlined.   
  
B. Positions and Honors   
Positions and Employment   
1986-1994 Director of Research, Philadelphia Unit of Shriners Hospitals & Clinical Assistant Professor, Department of Orthopaedic Surgery, Temple University, Philadelphia PA   
1994-2002 Assistant Professor, Departments of Orthopaedics and Biomedical Engineering, Case Western Reserve University, Cleveland OH   
2002-2009 Tenured Associate Professor, Departments of Orthopaedics and Biomedical Engineering, CWRU & Research Career Scientist, US Department of Veterans Affairs   
2000-Present Director, Motion Study Laboratory, Louis Stokes Cleveland Veteran’s Affairs Medical Center   
2005-Present Director, Advanced Platform Technology Center of Excellence, Rehabilitation R&D Service - US Department of Veterans Affairs   
2007-Present Senior Career Research Scientist, US Department of Veterans Affairs   
2009-Present Tenured Full Professor, Departments of Orthopaedics and Biomedical Engineering, CWRU   
  
Other Experience and Professional Memberships   
1980 – present IEEE Engineering in Medicine & Biology Society (EMBS)   
1984 Selected to Sigma Xi, Scientific Research Society   
1992 Professional Achievement Award, Villanova University,   
1999-2009 Associate Editor, IEEE Transactions on Neural Systems & Rehabilitation Engineering   
2002-2005 International Functional Electrical Stimulation Society (IFESS) – Board of Directors   
2004 Maurice Saltzman Award for Clinical/Academic Excellence, Mount Sinai Foundation   
2004 White House Committee on Emerging Technologies: The New Frontiers Initiative   
2006 – present Associate Editor, Journal of Rehabilitation of Rehabilitation Research & Development   
2014 Elected Fellow, American Institute of Medical and Biological Engineers   
  
C. Contribution to Science   
Design and Evaluation of Motor System Neuroprostheses for Standing and Walking: My interdisciplinary team of clinicians and engineers dedicated to developing, installing and evaluating the clinical outcomes of surgically implanted motor system neuroprostheses for lower extremity function after paralysis or limb loss. Contributions include developing the operative, rehabilitation and assessment techniques for efficiently deploying systems for exercise, standing, transfers and stepping, disseminating them to collaborating sites in multicenter trials, and assessing their impact on independent mobility and overall health. I have quantified the acute and chronic biomechanical and functional implications of implanted lower extremity neuroprostheses. I have established the safety of these systems and explored novel methods of integrating stimulated and volitional muscle activity through physical sensors and biological signals. My team is successfully extending our results in spinal cord injury to the stroke and MS populations, and is currently investigating the feasibility of restoring natural sensation to lower limb amputees by activating the sensory nerves in the residual limb.   
• Selkirk S, et al., Feasibility of restoring walking in multiple sclerosis with multichannel implanted electrical stimulation”, Am Jou Phys Med & Rehab, 2017 Feb 1. PMID: 28151761 (senior author)   
• Makowski NS, Kobetic ., Lombardo L, Foglyano , Pinault G, Selkirk S, Triolo R, Improving walking with an implanted neuroprosthesis for hip, knee oand ankle control after stroke, Am Jou Phys Med & Rehab 95(12): 880-888, 2016. PMC5115927   
• Chang S, et al. Improving stand-to-sit maneuver for individuals with SCI by controlling the knee with a hybrid neuroprosthesis, Jou NeuroEngr and Rehab, 13(21), 2016. PMC26979386   
• Lombardo L, et al. A preliminary comparison of myoelectric and cyclic control of an implanted neuroprosthehsis to modulate gait speed in incomplete SCI, Jou of Spinal Cord Med 38(1): 115-122, 2015. PMC4293526 (senior author)   
• Chang S, Kobetic R, Triolo R. Understanding stand-to-sit maneuver: implications for motor neuroprostheses after paralysis. Jou Rehab R & D. 51(9): 1339-1352, 2014. PMC2578673   
• Triolo RJ, et al. Longitudinal performance of a surgically implanted neuroprosthesis for lower extremity exercise, standing, and transfers after SCI. Arch Phys Med & Rehab. 93(5):896-904, 2012. PMC4111081   
• Rohde L, Bonder B, Triolo R, An exploratory study of perceived quality of life with implanted standing neuroprostheses. Jou Rehab R & D. 49(2):265-278, 2012. PMC4465790   
  
Neuroprostheses for Seated Posture, Balance and Wheelchair Propulsion: I lead an active research program dedicated to understanding and controlling the paralyzed pelvis and spine to restore vertebral alignment, improve respiration, extend bimanual reach, stabilize sitting posture, provide active sitting balance and enhance mechanical efficiency of manual wheelchair propulsion. My contributions include developing anatomically inspired musculoskeletal models of the thighs, pelvis and trunk for predictive simulations of seated activities, demonstrating clinical benefits of stiffening the trunk and pelvis with implanted neuroprostheses on active sitting function, automating regulation of upright posture in the presence of disturbances to prevent falls from the wheelchair, and expanding seated reach and manual control over objects in the environment.   
• Audu M, Triolo R. Intrinsic and extrinsic contributions to seated balance in sagittal and coronal planes: implications for trunk control after SCI, Jou Applied Biomech 31(4):221-228, August 2015.   
• Audu M et al. A neuroprosthesis for control of seated balance after spinal cord injury, Jou NeuroEngr & Rehab 15, 12-8, 2015. PMC4939827 (senior author)   
• Murphy J, et al. Feasibility of a closed-loop controller for righting seated posture after spinal cord injury, Jou Rehab R & D, 51(5): 747-760, 2014. PMID25333890 (senior author)   
• Triolo RJ, et al. Effects of trunk stimulation on manual wheelchair propulsion mechanics after spinal cord injury, Arch Phys Med & Rehab 94(10):1997-2005, 2013. PMC4103696   
• Triolo R, et al. Effects of stimulating hip and trunk muscles on seated stability, posture and reach after spinal cord injury, Arch Phys Med & Rehab 94(9):1766-75, 2013. PMC4103650   
• Wu G, et al. The effects of combined trunk and gluteal neuromuscular electrical stimulation on posture and tissue health in spinal cord injury. Phys Med & Rehab Jou 5(8): 688-696, 2013. PMC4103650 (third author)   
  
Advanced Exoskeletal and Neuromechanical Gait Assist Systems: I have designed, built and evaluated novel dynamic lower extremity exoskeletal systems that automatically lock, unlock or damp individual hip, knee and ankle joints, or kinematically couple multiple joints based on sensor feedback to facilitate standing, walking or stair climbing for individuals with neuromuscular disorders. Contributions include patented designs for thoraco-lumbo-sacral orthoses with context-dependent stiffness, ankle-foot orthoses with variable plantar/dorsiflexion power assist, and a smart-phone based hydraulic exoskeleton with variable joint constraints. Our novel “muscle first” approach integrates mechanical components with volitional or electrically activated muscle contractions to eliminate the need for motors at each joint like conventional powered exoskeletons. Muscle contractions drive limb motion in the hybrid neuromechanical system, while the exoskeleton shapes limb trajectories, facilitating or constraining movement appropriately during a functional activity. I have also devised, patented and evaluated assistive devices to facilitate the sit-to-stand transition, as well as adapt to uneven terrain to enable negotiation of stairs, ramps or other architectural barriers.   
• Foglyano K, Kobetic R, To C, Bulea T, et al. Feasibility of a hydraulic power assist system for use in a hybrid neuroprosthesis. Applied Bionics & Biomech 2015:1-8. PMC4745429 (senior author)   
• Bulea T, et al. Forward stair descent with hybrid neuroprosthesis after paralysis: single case study demonstrating feasibility, Jou Rehab R & D, 51(7):1077-1094, 2014. PMC4667789 (senior author)   
• Bulea TC, et al. Stance controlled knee flexion improves stimulation driven walking after spinal cord injury, Jou NeuroEngr & Rehab 2013, 10:68. PMC3708761 (senior author)   
• To C, Kobetic R, Bulea T, et al. Sensor-based hip control with a hybrid neuroprosthesis for walking in paraplegia. Jou Rehab R & D, 51(2):229-244, 2014 PMID24933721 (senior author)   
• Bulea TC, et al. Finite state control of a variable impedance hybrid neuroprosthesis for locomotion after paralysis. IEEE Trans Neural Sys & Rehab Engr 21(1):141-151, 2013. PMC3830532 (senior author)   
• Bulea TC, Triolo R. Design and experimental evaluation of a vertical lift walker for sit-to-stand transition assistance, ASME Jou Med Dev 6(0145041):1-5, 2012. PMC3707190   
• To C, Kobetic R, Bulea T, et al. Sensor-based stance control with orthosis and functional neuromuscular stimulation for walking after spinal cord injury. Jou Prosthetics & Orthotics, 24(3):124-132, 2012. PMID24933721(senior author)   
  
Development and Verification of Selective Peripheral Nerve Interfaces: My research team and I have applied fundamental engineering principles design, prototype and complete the in vitro and in vivo qualification new, highly selective multi-contact peripheral nerve electrodes. The devices are capable of isolating functionally distinct fascicular groups within a common nerve trunk, and activating independent non-overlapping motor unit pools in their target muscles. The interfaces cause no discernable alteration of axon diameter or myelin thickness, or change in conduction velocity while allowing access to discrete populations of axons without penetrating the epineurium. Methods to optimize the selective activation of individual motor unit pools have been developed to elicit multiple joint motions caused by isolated contractions of individual muscles from a common surgical installation site on the proximal nerve, obviating the need for multiple incisions and distal electrodes. We have completed intraoperative testing and received FDA approval to deploy the interfaces in chronic human feasibility studies.   
• Freeberg M, Stone M, Tyler M., Triolo R. The chronic tissue and neural responses to the composite flat interface nerve electrode (C-FINE) Jou Neural Engr – IN PRESS   
• Schiefer M, Freeberg M, Pinault G, Anderson J, Hoyen H, Tyler D, Triolo R. Selective activation of the human tibial and common peroneal nerves with a flat interface nerve electrode, Jou Neural Engr 10(5): 056006, 1-13, 2013. PMC3809099   
• Fisher L, Tyler D, Triolo R, Optimization of selective stimulation parameters for multi-contact electrodes, Jou of NeuroEngr & Rehab 10:25, 2013. PMC3599334   
• Joseph S, Gustafson K, Grinberg Y, Triolo R. Human distal sciatic nerve fascicular anatomy: implications for ankle control utilizing nerve cuff electrodes. Jou Rehab R & D. 49(2):309-322, 2012. PMID 22773531   
• Schiefer M, Triolo R, Tyler D. Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat interface nerve electrode. Jou Comp Neurosci 33(1): 179-190, 2012. PMC3357453   
  
Biomechanical Modeling and Control of Human Posture, Balance and Locomotion: My research team has created new computational tools to analyze the biomechanics of bipedal stance, and has applied them to study human motor control and optimize the performance of various assistive technologies that mimic the intact preparatory, reactive and predictive elements of the intact vestibular and proprioceptive systems for maintaining erect balance. Our model-based approach to control system design relies on dynamic simulations utilizing an anatomically inspired representation of the human musculoskeletal system including a fully articulated torso, pelvis and extremities with over 50 musculotendon actuators that can be individualized for each subject. Balance control systems developed in silico have been successfully implemented in the laboratory with human volunteers, and have demonstrated the feasibility of significantly reducing the upper extremity effort exerted on a walker or other support device, as well as the potential to assume and maintain user-selected task-dependent postures.   
• Nataraj R, Audu M, Triolo, R. Simulating restoration of standing balance at leaning postures with functional neuromuscular stimulation following SCI, Med & Biolog Engr & Computing 2016 Jan;54(1):163-76. PMC4775462   
• Audu M, Gartman S, Nataraj R, Triolo R. Posture dependent control of stimulation in a standing neuroprosthesis: a simulation feasibility study, Jou Rehab R & D 51(3):481-496, 2014. PMID25019699   
• Nataraj R, Audu M, Triolo R, Center of mass acceleration feedback control of standing balance by functional neuromuscular stimulation against external perturbations. IEEE Trans Biomed Engr 16(1):10-19, 2013. PMC3578290   
• Nataraj R, Audu M, Triolo R, Center of mass acceleration feedback control of standing balance by functional neuromuscular stimulation against internal postural perturbations. Jou Rehab R & D, 49(6): 889-912, 2012. PMC3573353   
• Nataraj R, Audu M, Triolo R, Comparing joint kinematics and center of mass acceleration for feedback control of standing by functional neuromuscular stimulation. Jou Neuro Engr & Rehab, 9:25, 2012. PMC3484032   
• Nataraj R, et al. Center of mass acceleration feedback control for standing by functional neuromuscular stimulation – a simulation study. Jou Rehab R & D, 49(2): 279-296, 2012. PMC3586940 (senior author)   
• Nataraj R, et al. Trunk acceleration for neuroprosthetic control of standing – a pilot study. Jou Applied Biomech 28(1): 85-92, 2012 PMC3577928 (senior author)   
  
D. Research Support   
Ongoing Research Support   
NIH NIBIB EB001889 (Co-PI with D. Tyler) 04/2014 – 03/2018   
“Enhancing Neuroprosthesis Performance with Nerve Cuff Electrodes”   
Goals: To address the limitations of currently available first generation neuroporstheses for standing and walking after spinal cord injury by utilizing nerve cuff electrodes to a) increase available knee extension moment and b) refine the design of high density peripheral nerve cuff electrodes for the human sciatic nerve. The project includes neuroanatomical studies, computer modeling and simulation for optimal cuff design, and both acute intraoperative and chronic clinical testing.   
  
NIH NINDS NS04547 (Co-PI with M. Audu) 07/2011 – 06/2018 (No Cost Extension)   
“Automatic Control of Standing Balance with FNS”   
Goals: To develop novel control systems to regulate posture & restore balance to users of neuroprostheses for standing after spinal cord injury; to innovative feed-forward, feedback & adaptive control techniques will monitor posture, anticipate perturbations & modulate stimulation to keep the user upright. A novel command/control system allows the user to set task-specific postures and produce a reactive step in response to large, unanticipated and destabilizing disturbances.   
  
DARPA Grant (Triolo, PI) 07/2015 – 6/2019   
“Natural Sensation for Lower Limb Amputees”   
Goals: To establish the feasibility of eliciting perceptions of foot-floor contact and ankle status by activating the intact sensory nerves of trans-tibial amputees via selective multicontact nerve cuff electrodes. Psychometric characteristics and robustness of stimulated responses and their initial implications to balance and ambulation when evoked from a sensorized lower limb prosthesis are to be determined.   
  
VA/RRD Grant (Triolo, PI) 10/2014 – 09/2021   
“Senior Career Research Scientist Award”   
This is a career development award supporting the VA portion of Dr. Triolo’s dual appointment with the Case Western Reserve University.   
  
Advanced Platform Technology Center of Excellence (Triolo, PI) 01/2015 – 12/2019   
Department of Veterans Affairs   
This VA RR&D Center provides administrative, regulatory, quality and engineering infrastructure for investigators pursuing new restorative and rehabilitative technologies. Programmatic thrusts include advanced prosthetics/orthotics, neural interfacing, health monitoring and maintenance, and enabling technologies including macromolecular or bioactive materials, microfabrication, additive manufacturing, and wireless communication.Role: Executive Director   
  
VA/RRD Grant (Triolo, PI) 08/2013 – 07/2018 (No Cost Extension)   
“Exploiting Selective Recruitment to Prolong Standing after SCI”   
Goals: To optimize and automate advanced stimulation paradigms that take advantage of the selectivity of multicontact stimulating nerve cuff electrodes to alternate between synergistic motor unit pools to delay fatigue and extend standing times with implanted neuroprostheses.   
  
  
Pending Support   
DoD SCIRP SC160104 (Co-PI with M. Audu) 10/2017 - 09/2020   
“Enhancing Seated Stability and Reaching after Spinal Cord Injury”   
Goals: To determine the feasibility of a new comprehensive control system to set task-dependent sitting postures and maintain balance at forward or side leaning positions in the presence of internally generated or externally applied perturbations to recipients of implanted neuroprostheses with SCI.   
  
DoD CDMRP DM170381 GRANT12289947 (Triolo, PI) 10/2017 - 09/2021   
“Natural Sensation of Foot-Floor Interactions for Transfemoral Amputees via Neural Stimulation”   
Goals: To establish the feasibility of eliciting perceptions of foot-floor contact and ankle status by activating the intact sensory nerves of trans-femoral amputees via selective multicontact nerve cuff electrodes. Interface with the sensor suite of a commercially available instrumented microprocessor knee to acquire feedback signals to control stimulation for home use.

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**Interventional Pain Medicine in Spine Cord Injury Patients: contributions to the field**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***George Macrinici, MD***  
John H. Stroger Jr Hospital of Cook County

**CV:**  
Research Experience   
  
07/01/2014 – 01/29/2016 Author/Principal Investigator of the clinical trial:   
“Prospective, Double-blind, Randomized Study to Evaluate a Single Injection Adductor Canal Nerve Block versus Femoral Nerve Block combined with LIA (Local Infiltration Analgesia): Postoperative Period Functional Outcomes after Total Knee Arthroplasty. The clinical trial took place at Presence Saint Joseph Medical Center located at 333 N. Madison Street Joliet, IL 60435. The trial summary and information can be found at: www.clinicaltrials.gov NCT02218814   
  
Macrinici G. I. , Murphy C., Christman L., Drescher M., Hughes B., Macrinici V., Diab G.   
Prospective, Double-Blind, Randomized Study to evaluate Single-Injection Adductor Canal Nerve Block versus Femoral Nerve Block: Postoperative Functional Outcomes after Total Knee Arthroplasty. Regional Anesthesia and Pain Medicine. Volume 42, Number 1, January-February 2017: 10-17

***Azzam Alkhudari, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

***Maria Torres, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

***Abed Rahman, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

***Taruna Penmetcha, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

***Gunar Subieta, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

***Steve Clar, MD***  
John H. Stroger Jr Hospital of Cook County

*(no CV uploaded)*

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**Unique Rehabilitation Challenges in a Pediatric Spinal Cord Injury and Brachial Plexopathy related to Malignancy and Subsequent Oncologic Treatment: a case report**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Erin Conlee, MD***  
Mayo Clinic

**CV:**  
SELECTED TRAINING OVERVIEW   
  
Stanford Clinical Teaching Elective (2016)   
A six month annual hands-on course dedicated to comprehensive diagnostic musculoskeletal exam skills, imaging and ultrasound-guided injection techniques by interventional physiatrists in addition to written and practical examinations upon completion.   
  
PM&R Musculoskeletal Ultrasound Course (2013, 2014, 2015)   
A six month annual hands-on course dedicated to comprehensive diagnostic musculoskeletal exam skills, imaging and ultrasound-guided injection techniques by interventional physiatrists in addition to written and practical examinations upon completion.   
  
Spinal Injection Course (2015, 2016)   
An annual in-depth course led by interventional physiatrists and radiologists dedicated to imparting spinal injection techniques including epidural, transforaminal, facet and sacroiliac joint and fluoroscopy in cadaveric patients.   
  
Clinical Neurophysiology Course (2014)   
A two month course designed to teach Neurology and PM&R residents and fellows the techniques and application of nerve conduction studies, needle electromyography, evoked potentials, and autonomic testing.   
  
PM&R Clinical Anatomy Course (2013)   
A four month course focusing on neuromuscular anatomy and clinical correlates. Experience included hands on dissections with dedicated PM&R cadaver and peer presentations with consultant oversight in addition to written and practical examinations upon completion.   
  
  
CERTIFICATIONS   
- 2017 Board Certified, American Board of PM&R   
- 2014-current Pediatric Advanced Life Support (PALS) Certification   
- 2013-current American Spinal Injury Association (ASIA)   
-- Autonomic Standards Training E Program (ASTeP)   
-- International Standards Training E Program (InSteP)   
-- Pediatric Standards Training E Program (WeeSTeP)   
- 2013-current DEA Controlled Substance Registration Certificate   
- 2013-current MN Board of Medical Practice PM&R License   
- 2012-2013 MN Board of Medical Practice Internal Medicine License   
- 2012-current Basic and Advanced Cardiac Life Support (BLS, ACLS) Certification   
  
  
PROFESSIONAL SOCIETIES   
- 2014-current American Academy of PM&R (AAPM&R)   
- 2014-current American Academy of Cerebral Palsy & Developmental Medicine (AACPDM)   
-- Committee Chair, Adaptive Sports & Recreation 2016-2017   
- 2007-current Phi Delta Lambda Scientific Honor Society   
  
RESEARCH, PUBLICATIONS and POSTER PRESENTATIONS   
  
Conlee EM, Driscoll SW, McIntosh AL, Brandenburg JE. A comprehensive retrospective case series of individuals with limbus fractures: presentation, diagnosis, and treatment. (Manuscript in preparation)   
  
Powell AJ, Conlee EM, Chang DG. Three decades of citation classics: the most cited articles in the field of physical medicine and rehabilitation. PMID: 25091931 PM R 2014;6(9):828-40   
  
Conlee EM, Driscoll SW, McIntosh AL, Brandenburg JE. Poster 560 A comprehensive retrospective case series of individuals with limbus fractures: presentation, diagnosis, and treatment. PM R 2014;6(9 supplemental): S175-176. Poster presented at AAPM&R 2014   
  
Iafrate JL, Conlee EM, Schultz BA, Basford, JR. Poster 391 Awake and on the move: methylphenidate and levodopa for traumatic brain injury associated parkinsonism - a case report. PM R 2014;6(9 supplemental): S322   
  
Conlee EM, Driscoll SW, Pittelkow TP, Nash DL. Beauty isn’t necessarily benign: minocycline-induced vasculitic neuropathy with central and peripheral involvement – a case report.   
Poster presented at AAPM&R Annual Assembly, October 2015   
  
Fredericks WH, Conlee EM, Landry BW, Nash DL. Brachial plexus injury secondary to extracorporeal membrane oxygenation cannulation and infraclavicular hematoma compression.   
Poster presented at Association of Academic Physiatrists (AAP) Annual Meeting, March 2015   
  
Conlee EM, Driscoll SW, McIntosh AL, Brandenburg JE. A comprehensive retrospective case series of individuals with limbus fractures: presentation, diagnosis, and treatment.   
“Best Pediatric Posters” oral presentation at AAPM&R Annual Assembly, November 2014   
  
Conlee EM, Driscoll SW, McIntosh AL, Brandenburg JE. Not your typical pain in the back: adolescent back pain that requires a second look. Poster presented at American Academy of Pediatrics Annual Meeting, October 2014   
  
Conlee EM, Stolp KA. With fear and trembling: orthostatic myoclonus. Poster presented at AAP Annual Meeting, February 2014   
QUALITY IMPROVEMENT PROJECTS   
- PRO Kids – Increasing Pediatric Admissions to the Rehabilitation Unit (2016 to present)   
- Pharmacy Assisted Dismissal Medication Reconciliation Project (2015 to present)   
- Resident Education Improvement: Pediatric PM&R Didactics (2015 to present)   
- Durable Medical Equipment – Improving Wheelchair Prescription Documentation (2015 - 2016)   
  
LEADERSHIP and VOLUNTEER POSITIONS   
MAYO CLINIC, DEPARTMENT OF PM&R   
- Chief Resident (2015-2016)   
- PM&R Residency Program Evaluation Committee (2015-2016   
- PM&R Development Committee (2015-2016)   
- PM&R IRF Compliance Committee (2015-2016)   
- Monthly EMG Conference Coordination (2015-2016)   
- Monthly PM&R Journal Club coordination (2015-2016)   
- Spinal Injection Course coordination (2015, 2016)   
- PM&R Residency Didactics Planning Committee (2014-2016)   
  
VOLUNTEER POSITIONS   
- Adaptive Rock Climbing Program Founder and Coordinator (2015-present)   
- Special Olympics Volunteer (2014-present)   
- Physician Coverage for Rochester Triathlon (2014)   
- Medical Student Teaching (2013-present)   
- Mayo PM&R Medical Student Interest Group Participant (2013, 2015, 2017)   
  
  
EDUCATIONAL and TEACHING ACTIVITIES   
MAYO CLINIC   
- PM&R Departmental Grand Rounds   
“Relax…EMG evaluation in Stiff Person Syndrome” (2015)   
“Use of Transcutaneous Electrical Nerve Stimulation (TENS) in the Pediatric Population” (2014)   
- PM&R Departmental Journal Club   
“Prosthetics & Orthotics" (2015)   
“Musculoskeletal -- Knee Arthroplasty” (2014)   
“Pediatrics – Childhood Obesity” (2014)   
- Neurology EMG Case Conferences   
“Peroneal Neuropathy” (2015)   
“Stiff Person Syndrome & Acute Radiculopathy” (2015)   
- Presentation at Pediatric Residency Educational Series – “Spina Bifida” (2014)   
-PM&R Resident Didactics   
“Exercise after Cardiac Transplantation” (2014)   
- Mayo Clinic Rochester Sports Medicine Conference   
“Ultrasound in Traumatic Ulnar Nerve Injuries” (2014)   
“Adaptive Rock Climbing” (2014)   
- PM&R Morbidity & Mortality: “Antiepileptic Overdose” (2014)

***Fantley Smither, MD***  
Mayo Clinic

*(no CV uploaded)*

***Linda Pirius, PT, DPT***  
Mayo Clinic

*(no CV uploaded)*

***Kaitlin Cossette, OT***  
Mayo Clinic

*(no CV uploaded)*

***Joline Brandenburg, MD***  
Mayo Clinic

*(no CV uploaded)*

***Sherilyn Driscoll, MD***  
Mayo Clinic

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**Bariatric surgery for morbid obesity in patient with spinal cord injury – a longitudinal follow up**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
Samford Wong is NSIC Dietetic Lead in Research / Lead Dietitian, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Department of Nutrition and Dietetics, Stoke Mandeville Hospital, Buckinghamshire Healthcare NHS Trust, Aylesbury HP21 8AL; Tel: 01296 315775; Email: samford.wong@buckshealthcare.nhs.uk   
Other current appointments:   
Honorary Lecturer, Health Service Research, City, University of London (Sept 2016- Present)   
Honorary Fellow, Health Service Research, City University London (Sept 2012- current);   
Honorary Research Associate (Oct 12 to Sept13), Centre for Gastroenterology and Clinical Nutrition, University College London   
  
Evidence of Esteem   
2010: Nutrition Society: Postgraduate Competition Award   
2010: Hospital Infection Society: The Mike Emmerson Young Investigator’s Award   
2011: Buckinghamshire Healthcare NHS Trust: Staff Award: winner of the Courteous and Professional category   
2012: International Spinal Cord Society: Spinal Cord Prize – Silver Medal   
2013: American Spinal Injury Association meeting: Award papers / posters   
2013: ESPEN: Outstanding abstract (8 out of 576 accepted abstracts)   
2013: International Spinal Cord Society: Award paper (2nd place)   
2014: The Rose Simmond’s Award, the British Dietetic Association.   
2015: Spinal Injury Association, shortlisted candidate for the Award for Innovation and Research   
2017: New member spotlight – American Spinal Injury Association.   
Project Grants   
Aventis Pharma Limited 2008-09; (£3000).Wong SS (CI) et al Spinal Clinic for Obesity Outpatient Project.   
Abbott Nutrition 2009-11 (£15,000). Wong SS (CI) et al. Nutritional status in patient with spinal cord injury: a cross sectional, multi centre study.   
Hospital Infection Society 2010-12 (£10,000) & Yakult 2009-11 (£5,000) Wong SS (CI), et al. Do probiotics prevent antibiotics associated diarrhoea in SCI patients: a randomised controlled trial   
Waterloo Foundation (£9,091) & Abbott Nutrition 2010-12 (£9,091) Wong SS (CI), et al. A single centred study of the nutritional status of paediatric patients with spinal cord injuries: An Observational study.   
Buckinghamshire Healthcare NHS Trust (£10,000) Wong SS (CI), et al. Enhanced Pressure ulcers Recovery Programme (E PREP): A pilot study on the effect of specialised amino acid supplements in the management of pressure ulcers in patients with spinal cord injuries: a double-blinded, randomised, placebo-controlled trial   
Yakult Europe 2014-2016 (£345,793) Wong S (CI), Jamous A, O’Driscoll J, Hirani SP, Whelan K & Forbes A. Efficacy of Consuming Lactobacillus casei Shirota (LcS) In Spinal cord injury Patients (ECLISP) Effect of probiotics on gastrointestinal function in patients with spinal cord injuries: a multicentre, randomised, double-blinded, placebo-controlled trial.   
Buckinghamshire Healthcare NHS Trust (£15,000) Gainullina I, Graham A, Saif M & Wong S. Efficacy of ergocalciferol supplementation on urine calcium among patients with spinal cord injury: a randomised double-blinded, placebo-controlled trail.   
Equipment grants   
Buckinghamshire Healthcare NHS Trust’s Charitable Trust Fund (2014) Purchase of Quark RMR, Indirect calorimetry. COSMED SRL, Rome, Italy. (£24,989)   
Total research income (2007 – 2014) inclusive £ 476,714   
Conferences, symposia and workshops   
Co-ordination and management of research symposia and teaching workshops   
Since 2012 – Samford organise annual nutrition study day for covering nutritional Needs of Patients Following Spinal Cord Injury, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Invited lecturer   
2011 – (present) – teaching in UCL MSc: Clinical Nutrition module in Spinal Cord Injuries   
2012 March – Development and validation of Spinal Nutrition Screening Tool in patients with spinal cord injuries. University College London Medical Grand Round   
2012 November – Do probiotics prevent antibiotic-associated diarrhoea in patients with spinal cord injuries: a randomized controlled trial: an interim analysis. FIS / HIS 2012 conference, Liverpool ACC.   
2013 April – Patient and Public Involvement in Clinical Research. University of Aberdeen / Medical Research Council, Aberdeen, Scotland   
2014 November – Do probiotic prevent antibiotic-associated diarrhoea in patients with spinal cord injuries – a RCT. FIS / HIS 2014 conference, Lyon, France.   
2015 April – International Probiotic Study Day, Yakult Europe, Berlin, Germany.   
2016 November – Shirota Conference, Tokyo, Japan   
Book / Guideline contribution   
1.MASCIP (Multidisciplinary Association for Spinal Cord Injury Profession) (2010) Guidelines on rehabilitation of older adult with spinal cord injury – Wong S (2010) Chapter on Nutrition www.mascip.co.uk accepted, launched in Nov MASCIP conference   
2.International Spinal Cord Society (2012) E-learning modules – Nutritional management after spinal cord injuries (Basic and Advanced module) – Kovindha A, Wong S, Baumann W, et al. http://www.elearnsci.org/ http://www.elearnsci.org/intro.aspx?id=5&category=Doctors   
3. British Society of Rehabilitation Medicine (BSRM) (2012) Nutritional management in neuro- rehabilitation for UK national registrar training. Wong S, Spillman L & Graham A (2012)   
4. British Dietetics Association (2014) Manual of Dietetics Practice, 5th Edition – Twist A & Wong S (2014) Spinal Cord Injuries. Wiley Blackwell   
5. Consortium for Spinal Cord Medicine (2014) Pressure ulcer prevention and treatment following injury: A clinical practice guideline for health-care providers, 2nd Edition. Wong S - Nutrition section.   
6. MASCIP (2014-16) Weight management guideline for individuals with spinal cord injuries – Wong S (Guideline Chair), Bearne P, Fitzsimons L, Graham A, Taylor C, Twist A, Smith E.   
7. International Spinal Cord Society (ISCOS) (2014/5) ISCOS text book - Nutritional management after spinal cord injuries. Kovindha A &Wong S   
8. British Dietetics Association (2016) Advanced Nutrition and Dietetics in Nutrition Support – Wong S (2015) Spinal Cord Injuries.   
  
  
Recent peer-reviewed publications:   
1. Wong S, et al (2011) Spinal Clinic for Obese Out-patient Project (SCOOP) – a 1 year report. Food Nutr Sci 2, 901-7   
2. Wong S, et al (2012) How do spinal cord injury centres manage malnutrition? A cross-sectional survey of 12 SCIC in the UK and Ireland. Spinal Cord 50, 132-5.   
3. Wong S, et al (2012) The prevalence of malnutrition in spinal cord injured patients - a UK multicentre study. Br J Nutr 108, 918-923.   
4. Wong S, et al (2012) Validation of the Spinal Nutrition Screening Tool (SNST) in patients with spinal cord injuries (SCI)-result form a multicentre study. Eur J Clin Nutr 66, 382-7.   
5. Wong S, et al (2012) Profile and prevalence of malnutrition in children with spinal cord injuries - assessment of the Screening Tool for Assessment in Paediatrics (STAMP). Spinal Cord 50, 67-71.   
6. Wong S, et al (2012) An audit to assess awareness and knowledge of nutrition in a UK spinal cord injuries centre. Spinal Cord 50, 446-451.   
7. Wong S, et al (2012) Meal provision in a UK National Spinal Injury Centre – a qualitative audit of service users and stakeholders. Spinal Cord 50, 772-777.   
8. Wong S, et al (2013) Validation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP) in patients with spinal cord injuries (SCI), Spinal Cord 51, 424-429.   
9. Wong S, et al (2013) Nutritional supplement use in patients admitted to spinal cord injury centre, J Spinal Cord Med 36, 645-651.   
10.Wong S, et al (2013) Morbid obesity after spinal cord injury: an ailment not to be treated?   
Eur J Clin Nutr 67, 998-999   
11. Wong S, et al (2014) A Lactobacillus casei Shirota probiotic drink reduces antibiotic-associated   
diarrhoea in patients with spinal cord injuries: a randomised controlled trial. Br J Nutr 111, 672-678.   
12. Wong S, et al (2014) IS nutritional risk associate with adverse clinical outcomes in spinal cord injured   
patients admitted to a spinal centre? Eur J Clin Nutr 68, 125-130.   
13. Wong S (2014) Malnutrition after spinal cord injury. Network Health Dietitian 90, 27-29.   
14. Wong S, et al (2015) Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal   
cord injuries: an international survey. Spinal Cord 53, 24-31.   
15. Wong S, et al (2015) Review of dietetic service provision and activity in spinal cord injury centres: a multicentre survey in the UK   
and Republic of Ireland. Spinal Cord 53, doi: 10.1038/sc.2015.83   
16. Wong S et al (2015) Survey on the use of probiotics in preventing antibiotic associated diarrhoea and Clostridium difficile   
associated diarrhoea in spinal cord injuries centres. Int J Probiotcs and Prebiotics 10, 85-90.   
17. Hughes L, Wong S (2015) Nutritional Support and Spinal Cord Injuries. Complete Nutrition 15: 11-14.   
18. Wong S, et al (2015) Effectiveness of probiotic in preventing antibiotic associated diarrhoea and / or Clostridium difficile   
associated diarrhoea in patients with spinal cord injury: a study protocol for a systematic review of randomised controlled   
trials. Syst Review 4, 170.   
19. Wong S, et al (2017) Use of antibiotic and prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: a   
UK national spinal injury centre experience. Spinal Cord 2017 Jan 31: doi: 10.1038/sc.2016.193 [Epub ahead of print]   
20. Wong S, et al (2017) Effectiveness of probiotic in preventing antibiotic associated diarrhoea (AAD) and Clostridium difficile   
associated diarrhoea (CDAD) in patients with spinal cord injury: A systematic review. Int J Probiotics and Prebiotics 12, 115-122.   
21. Wong S, Santullo P, Hirani SP et al (2017) Use of antibiotics and the prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: an international, multi-centre study. J Hosp Infect 97, 146-152.

***Simone Tiberti, MD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Maurizio Belci, DMS., FRCP., MRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

**75**

**Therapeutic potential of transcutaneous electrical spinal stimulation on upper extremity functions in cervical spinal cord injury: a case study**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Fatma Inanici, MD***  
University of Washington

**CV:**  
Biographical Sketch Name: Fatma Inanici, MD,   
Position Title: Predoctoral Research Associate, University of Washington, Department of Rehabilitation Medicine   
A. Personal Statement   
Trained as a physiatrist, I have gained expertise on evaluation and treatment of the individuals with neurological disorders, including spinal cord injury. I also have experience on conducting clinical electrophysiologic studies and motion analysis.   
During my career as a physician and a faculty in Hacettepe University, I have worked on many projects and published journal articles in the rehabilitation field. Now as a PhD candidate, I am working on developing novel strategies for functional rehabilitation of patients with spinal cord injury.   
B. Positions and Honors   
Positions and Employment   
1992 – 1996 Resident, Department of Physical Medicine and Rehabilitation, Hacettepe University Medical School, Ankara, Turkey   
1996 – 1999 Acting Assistant Professor, Department of Physical Medicine and Rehabilitation, Hacettepe University, School of Medicine, Ankara, Turkey   
1999 – 2002 Assistant Professor, Department of Physical Medicine and Rehabilitation, Hacettepe University, School of Medicine, Ankara, Turkey   
2002 – 2007 Associate Professor, Department of Physical Medicine and Rehabilitation, Hacettepe University, School of Medicine, Ankara, Turkey   
2007 – 2013 Professor, Department of Physical Medicine and Rehabilitation, Hacettepe University, School of Medicine, Ankara, Turkey   
2016 – 2017 Predoctoral Research Associate, University of Washington, Seattle, WA   
Other Experience and Professional Memberships   
1992 – Member, Turkish Society of Physical Medicine and Rehabilitation   
1992 – Member, Turkish Society of Rehabilitation Medicine   
2000 – 2013 Editorial Board Member, Journal of Rheumatology and Medical Rehabilitation   
2010 - 2013 Editorial Board Member, Journal of Physical Medicine and Rehabilitation Sciences   
  
C. Contribution to Science   
1. My current research interest is spinal cord rehabilitation. Earlier. I have involved in rehabilitation of various neurological disorders and conducted research studies on movement analysis and functional measurements in these groups.   
a. Guner S, Haghari S, Inanici F, Alsancak S, Aytekin G. Knee muscle strength in multiple sclerosis: relationship with gait characteristics. J Phys Ther Sci. 2015 Mar;27(3):809-13.   
b. Ozdemir O, Samut G, Esen E, Inanici F, Hascelik Z. Comparison of functional recovery in patients with traumatic brain injury and brain tumor after inpatient rehabilitation. Journal of Physical Medicine and Rehabilitation Sciences, 2015; 18: 25-29.   
c. Kaymak B, Inanici F, Ozçakar L, Cetin A, Akinci A, Hasçelik Z. Hand strengths in carpal tunnel syndrome. J Hand Surg Eur Vol. 2008 Jun;33(3):327-31.   
2. Early in my career, one of my other research interests was pain. I have studied on treatment of chronic pain, and gender differences in fibromyalgia. We have published detailed clinical features of fibromyalgia in men, which is as few as 10% of all cases, based on a large data set. I have involved both in data collection, and analysis, along with the manuscript writing of this study. This article has been highly impactful having a high citation rate in this field.   
a. Yunus MB, Inanici F, Aldag JC, Mangold RF. Fibromyalgia in men: comparison of clinical features with women. J Rheumatol. 2000 Feb;27(2):485-90.   
b. Reddy SS, Yunus MB, Inanici F, Aldag JC. Tender point injections are beneficial in fibromyalgia syndrome: A descriptive, open study. Journal of musculoskeletal pain. 2000; 8(4):7-18.   
c. Inanici F, Yunus MB. History of fibromyalgia: past to present. Curr Pain Headache Rep. 2004 Oct;8(5):369-78.   
d. Inanici F, Ozdemir O, Aydog T, Sendil A, Kutsal YG, Hasçelik Z. The frequency of fibromyalgia in sport professionals. Rheumatol Int. 2011 Aug;31(8):1121-2.   
3. I have involved in a series of studies on exercise tolerance, pulmonary and cardiac functions in patients with ankylosing spondylitis. We have revealed the contribution of pulmonary dysfunction on exercise intolerance in this group of patients. We also documented supraventricular arrhythmias and atrial conduction system changes in ankylosing spondylitis, which are generally underdiagnosed and have less attention.   
a. Aksoy H, Okutucu S, Sayin BY, Ercan EA, Kaya EB, Ozdemir O, Inanici F, Aytemir K, Oto A. Assessment of cardiac arrhythmias in patients with ankylosing spondylitis by signal-averaged P wave duration and P wave dispersion. Eur Rev Med Pharmacol Sci. 2016;20(6):1123-9.   
b. Ozdemir O, Gulsun Akpinar M, Inanici F, Hascelik HZ. Pulmonary abnormalities on high-resolution computed tomography in ankylosing spondylitis: relationship to disease duration and pulmonary function testing. Rheumatol Int. 2012 Jul;32(7):2031-6.   
c. Ozdemir O, Inanici F, Hascelik Z. Reduced vital capacity leads to exercise intolerance in patients with ankylosing spondylitis. Eur J Phys Rehabil Med. 2011 Sep;47(3):391-7.   
d. Kaya EB, Okutucu S, Aksoy H, Karakulak UN, Tulumen E, Ozdemir O, Inanici F, Aytemir K, Kabakci G, Tokgozoglu L, Ozkutlu H, Oto A. Evaluation of cardiac autonomic functions in patients with ankylosing spondylitis via heart rate recovery and heart rate variability. Clin Res Cardiol. 2010 Dec;99(12):803-8.   
4. I have contributed to determine the risk factors for developing osteoporosis among residents of urban areas in Turkey by screening 1061 individuals. Risk factors which have been associated with low bone mass are multifactorial and represent regional differences between and within countries. The findings of this study were later used to develop an algorithm to determine fracture risk for Turkish people and to decide treatment approach. I have continued to study osteoporosis risk factors and our group revealed that vascular thoracic outlet syndrome and intermittent compression of brachial plexus does not result in low bone density.   
a. Inanici-Ersoz F, Gokçe-Kutsal Y, Oncel S, Eryavuz M, Peker O, Ok S. A multicenter, case control study of risk factors for low tibial speed of sound among residents of urban areas in Turkey. Rheumatology international. 2002; 22(1):20-6.   
b. Kaymak B, Ozcakar L, Inanici F, Cetin A, Ariyurek M, Tan AA. Forearm bone mineral density measurements in thoracic outlet syndrome. Rheumatology international. 2008; 28(9):891-3.   
  
Complete list of citations available at https://www.ncbi.nlm.nih.gov/myncbi/browse/collection/46780339/?sort=date&direction=descending

***Soshi Samejima, PT***  
University of Washington

*(no CV uploaded)*

***Parag Gad, PhD***  
UCLa

*(no CV uploaded)*

***Reggie Edgerton, PhD***  
UCLa

*(no CV uploaded)*

***Christoph Hofstetter, MD., PhD.***  
University of Washington

*(no CV uploaded)*

***Chet Moritz, PhD***  
University of Washington

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**76**

**Augmenting Therapy with Transcutaneous Electrical Spinal Cord Stimulation (TSCS) to Improve Walking Function in an Individual with Motor-Incomplete Spinal Cord Injury: A Case Report**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Liza McHugh, PT, DPT, CMTPT***  
Kennedy Krieger Institute

**CV:**  
Liza McHugh   
801 N Broadway Ave   
Baltimore, MD 21205   
Cell: (860) 575-4972   
Email: mchughl@kennedykrieger.org   
  
Education   
  
Washington University in St Louis, Doctor of Physical Therapy   
Graduation Date: May 2013   
  
University of Delaware, Athletic Training   
Graduation Date: May 2010   
Cum Laude   
  
Work Experience   
  
August 2013 - Present   
Physical Therapist 2, Kennedy Krieger Institute, Baltimore, MD   
• Clinical specialization in novel application of stimulation in patients diagnosed with spinal cord injuries: Developed and implemented transcutaneous spinal cord stimulation (TSCS) treatment protocols for patients diagnosed with spinal cord injuries. Constructed project design and initiated process of collecting data on the effects of TSCS in combination with walking-based physical therapy.   
  
August 2008 – June 2010 Science Engineer Research, University of Delaware, Newark, DE   
Completed an in-depth apprenticeship with faculty researcher. Constructed project design and collected data for a study titled “Postural Sway and Neuropsychological Performance Following an Acute Bout of Soccer Heading.”   
  
Professional Development   
  
September 2015 – December 2015   
Clinical Education Internship Instruction, Kennedy Krieger Institute, Baltimore, MD   
Clinical Instructor for a full-time Doctorate of Physical Therapy Student   
  
October 2015 – Present   
Advanced Kinesio Taping Clinician, Kennedy Krieger Institute, Baltimore, MD   
Kinesio Taping Level I-IV Certified Therapist   
  
August 2015 – Present   
  
October 2016 – Present   
  
  
July 2017 - Present   
Level 2 Ekso Bionics Clinician, Kennedy Krieger Institute, Baltimore, MD   
  
Manual Trigger Point Therapist, Myopain Seminars, Bethesda, MD   
Certified Manual Trigger Point Therapist (Pain Specialist)   
  
Graston Technique Provider, Sheraton Baltimore Hotel, Towson, MD   
Graston Technique M1 – Basic Training   
  
Publications   
Kaminski T, McHugh LV, Chakraborty S, Glutting JJ. Examining Concussion-Related Symptoms Before and After Acute Bout of Heading in a Group of Female Collegiate Soccer Players. 3rd World Conference on Science and Soccer. May 2012. Ghent, Belgium. (Abstract)   
  
Professional Presentations   
McHugh LV, Miller AS, Martin R. Clinical effectiveness and safety of utilizing TSCS to facilitate voluntary motor control in 3 individuals with chronic tetraplegia and diaphragmatic pacemakers: A Case Series. ASIA annual scientific meeting. April, 2017. Albuquerque, NM.   
  
McHugh LV, Miller AS, Cabahug P. Facilitation of Voluntary Motor Activation Utilizing Transcutaneous Electrical Spinal Cord Stimulation in an Individual with Motor-Incomplete Spinal Cord Injury: A Case Report. ASIA annual scientific meeting. March, 2016. Philadelphia, PA.   
  
McHugh LV, Miller AS, Martin R. Facilitation of Voluntary Motor Activation Utilizing Transcutaneous Electrical Spinal Cord Stimulation in Individuals with Spinal Cord Injury. Spinal Cord Symposium. June, 2016. Baltimore, MD.   
  
McHugh LV, Kaminski T, Glutting JJ. Postural Sway and Neuropsychological Performance Following an Acute Bout of Soccer Heading. National Athletic Trainers Association Annual Meeting. June 2010. Philadelphia, PA.   
  
McHugh LV, Kaminski T, Glutting JJ. Postural Sway and Neuropsychological Performance Following an Acute Bout of Soccer Heading. Eastern Athletic Trainers’ Association Annual Meeting. January 2010. Boston, MA.   
  
Certifications and Licensures   
  
Certified Myofascial Trigger Point Therapist: October 2016 - Present   
Licensed Physical Therapist: June 2013 - Present   
The Maryland State Board of Physical Therapy Examiners: August 2013 – Present   
Certified Athletic Trainer: Spring 2010 – Present

***Ashley Miller, PT, DPT***  
Kennedy Krieger Institute

**CV:**  
Ashley A. Miller   
  
═══════════════════════════════════════════════════════   
  
801 N. Broadway ▪ Baltimore, MD 21205 ▪ 920-285-9001 ▪ milleras@kennedykrieger.org   
  
  
  
Education   
  
Washington University, St. Louis, MO 5 /17/13   
  
Doctor of Physical Therapy   
  
  
  
University of Dayton, Dayton, OH 5/2/10   
  
Bachelor of Science in Education and Allied Professions   
  
Major in Pre-Physical Therapy and Spanish   
  
Magna Cum Laude   
  
  
  
Work Experience   
  
Kennedy Krieger Institute, Baltimore, MD 7/1/2013-Present   
  
Physical Therapist II   
  
  
  
Licensure and Certification   
  
The Maryland State Board of Physical Therapy Examiners 8/1/2013-Present   
  
Authorized Physical Therapist   
  
  
  
Certified Walk-Aide Clinician 10/20/2015-Present   
  
  
  
Kinesio Taping Association International 10/11/2015-Present   
  
KT 1 – 4 Certified Therapist   
  
  
  
American Physical Therapy Association 8/2010-present   
  
Member   
  
Attended CSM 2013   
  
  
  
Clinical Education Internship Instruction 6/8/2015-8/14/2015   
  
Clinical Instructor for a full-time DPT student   
  
  
  
List of Poster Presentations   
  
McHugh LV, Miller AA, Cabahug P. Facilitation of Voluntary Motor Activation Utilizing   
  
Transcutaneous Electrical Spinal Cord Stimulation in an Individual with Motor-   
  
Incomplete Spinal Cord Injury: A Case Report. April, 2016. Philadelphia, PA.   
  
  
  
McHugh LV, Miller AA, Martins R. Clinical effectiveness and safety of utilizing transcutaneous spinal cord stimulation to facilitate voluntary motor control in individuals with chronic tetraplegia and diaphragmatic pacemakers; A Case Series. April, 2017. Albuquerque, NM.

**77**

**Alternative ways to exercise after SCI- Overground cycling with electrical stimulation without motor assistance- Case Study**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Lisa Lombardo, MPT***  
Louis Stokes Cleveland Va Medical Center

**CV:**  
LISA M. LOMBARDO   
Curriculum Vitae   
  
  
Home Address Work Address   
10224 Wilson Mills Rd Louis Stokes VA Medical Center   
Chardon, Ohio 44024 Research   
(440) 413-0922 10701East Blvd.   
(440) 352-8632 Cleveland, Ohio 44106   
E-mail: llombardo@aptcenter.org (216) 791-3800 ext.4909   
  
PROFESSIONAL EXPERIENCE   
Louis Stokes VA Medical Center Cleveland, OH   
Research 2006 - present   
Research Physical Therapist/Clinical Coordinator   
  
Courage Center Minneapolis, MN   
Medical Rehabilitation/Education 2002 - 2006   
Staff Physical Therapist   
  
Cleveland Clinic Foundation Cleveland, OH   
Department of Rehab Services, Physical Therapy 2001 – 2002   
Center Coordinator of Clinical Education, Physical Therapy Education Coordinator   
  
Cleveland Clinic Foundation Cleveland, OH   
Department of Rehab Services, Physical Therapy 1997 - 2001   
  
OTHER EXPERIENCES   
St. Joseph's Hospital Phoenix, AZ Jan. 1997-May 1997   
Student   
  
Geisinger Medical Center Danville, PA Aug. 1996-Dec. 1996   
Student   
  
VA Hospital Oakland, PA Oct. 1995-Dec. 1995   
Student   
  
Slippery Rock University Slippery Rock, PA   
Graduate Assistant / Neuroscience Laboratory 1995-1996   
  
Ohio State University Columbus, OH   
Teaching Assistant for Gross Anatomy 1993-1994   
  
EDUCATION   
  
Slippery Rock University Slippery Rock, PA   
Master's of Physical Therapy degree May 1997   
Master’s Research Thesis, Slippery Rock University 1996   
Title: “A Comparison of Three Clinical Measurement Methods for Assessing Hamstring Muscle Length.”   
Ohio State University Columbus, OH   
Bachelor of Science in Psychology June 1999   
  
CERTIFICATIONS   
  
APTA Credentialed Clinical Instructor   
American Heart Association BLS Instructor   
Neonatal Resuscitation Program Certification   
NDT Certification- 3week course   
  
  
PUBLICATIONS   
  
Peer Reviewed Papers Submitted and Currently in Review   
1. “Cycle training using implanted neural prosthesis: Team Cleveland, J. McDaniel, L. Lombardo, K. Foglyano, P. Marasco, R. Triolo, European Journal of Translational Myology” – submitted September 2017.   
2. “Automatic application of neural stimulation during wheelchair propulsion after SCI enhances recovery of upright sitting from destabilizing events,” K. Armstrong, L. Lombardo, K. Foglyano, M. Audu, R. Triolo, Journal of NeuroEngineering and Rehabilitation – submitted July 2017.   
3. 3. “Setting the pace: insights and advancements gained while preparing for an FES bike race,” K. McDaniel, P. Marasco, L. Lombardo, R. Triolo, Journal of Neural Engineering and Rehabilitation – submitted July 2017.   
4. 4. “Experimental verification of a controller to enable user-selected, task-dependent standing postures with an implanted neuroprosthesis,” B.M. Odle, L.M. Lombardo, M.L. Audu, R.J. Triolo, IEEE Transactions on Biomedical Engineering – submitted, July 2017.   
5. 5. “Selectivity and stability of 8-contact composite flat interface nerve electrodes on the human proximal femoral nerves,” M.J. Freeberg, R. Ansari, G.C.J. Pinault, L.M. Lombardo, M.E. Miller, D.J. Tyler, R.J. Triolo, Journal of NeuroEngineering and Rehabilitation – submitted June, 2017.   
  
  
Peer-Reviewed Papers (Published or Accepted for Publication: Total = 129)   
1. “Long-term technical and clinical performance and user satisfaction of implanted neuroprostheses for upright mobility after paralysis: Two to 14 year follow-up.” R.J. Triolo, S.N. Bailey, K. Foglyano, R. Kobetic, L. Lombardo, M. Miller, S. Selkirk, G. Pinault, Archives of Physical Medicine & Rehabilitation – in press.   
2. “Impact of an implanted neuroprosthesis on community ambulation in incomplete SCI,” L.M. Lombardo, R.Kobetic, G.Pinault, K.M. Foglyano, S.N.Bailey, S. Selkirk, R.J. Triolo, Journal of Spinal Cord Medicine, accepted for publication.   
3. “Improving walking with an implanted neuroprosthesis for hip, knee and ankle control after stroke: a case report,” N.S. Makowski, R. Kobetic, L.M. Lombardo, K. Foglyano, G. Pinault, S. Selkirk, R.J. Triolo, American Journal of Physical Medicine & Rehabilitation, 95(12):880-888, 2016.   
4. “Reactive stepping with functional neuromuscular stimulation in response to forward directed perturbations,” A. Hunt, B. Odle, L. Lombardo, M. Audu, R. Triolo, Medical & Biological Engineering & Computing, (2017), 14:54 DOI 10.1186/s12984-017-026606   
5. “Accelerometer-based step initiation control for gait-assist neuroprostheses,” K.M. Foglyano, J.R. Schnellenberger, R.Kobetic, L.M. Lombardo, G. Pinault, S.Selkirk, N.S. Makowski, R.J. Triolo, Journal of Rehabilitation Research and Development, 53(6), 2016.   
6. “Feasibility of restoring walking in multiple sclerosis with multichannel implanted electrical stimulation,” S. Selkirk, R. Kobetic, L. Lombardo, G. Pinault, R. Triolo, American Journal of Physical Medicine & Rehabilitation, 95(12):880-888, December 2016. PMID: 28151761 DOI: 10.1097/PHM.0000000000000692   
7. “A preliminary comparision of myoelectric and cyclic control of an implanted neuroprosthesis to modulate gait speed in incomplete SCI,” L.M. Lombardo, SN. Bailey, K. Foglyano, M. Miller, G. Pinault, R. Triolo, Journal of Spinal Cord Medicine, 28(1): 115-122, 2015.   
8. “A neuroprosthesis for control of seated balance after spinal cord injury,” M.L. Audu, L.M. Lombardo, J.R. Schnellenberger, K.M. Foglyano, M.E. Miller, R.J. Triolo, Journal of Neuroengineering and Rehabilitation, 12:8, 2015.   
9. “Feasibility of closed-loop controller for righting seated posture after spinal cord injury,” J.O. Murphy, M.A. Audu, L.M. Lombardo, K.M. Foglyano, R.J.Triolo, Journal of Rehabilitation Research and Development, 51(5):747-60, 2014.   
10. “Effect of Trunk Stimulation on Manual Wheelchair Propulsion Mechanics after Spinal Cord Injury,” R.J. Triolo, S.N. Bailey, L.M. Lombardo, M.E. Miller, M.L. Audu, Archives of Physical Medicine and Rehabilitation, 94(10): 1997-2005, 2013.   
11. “Effects of Stimulating Hip and Trunk Muscles on Seated Stability, Posture, and Reach after Spinal Cord Injury,” R.J. Triolo, S.N. Bailey, M.E. Miller, L.M. Lombardo, M.L. Audu, Archives of Physical Medicine and Rehabilitation, 94(9): 1766-75, 2013.   
12. “The Effects of Combined trunk and Gluteal Neuromuscular Electrical Stimulation on Posture and Tissue Health in Spinal Cord Injury,” G.A. Wu, L. Lombardo, R.Triolo, K.M. Bogie, Physical Medicine and Rehabilitation, 5(8): 688-96, 2013   
  
  
ABSTRACTS / POSTERS   
  
  
1. “Peak oxygen consumption with implanted stimulation-driven cycling,” L. Lei Valentas, R. Kobetic, L. Lombardo, K. Foglyano, J. McDaniel, R. Triolo, Academy of Spinal Cord Injury Professionals Educational Conference, Denver CO, USA, September 3–6, 2017.   
2. “Retrospective summary of stimulated responses from implanted paraspinal electrodes,” M. Miller, L. Lombardo, H. Hoyen, G. Pinault, R. Triolo, Academy of Spinal Cord Injury Professionals Educational Conference, Denver CO, USA, September 3– 6, 2017.   
3. “Sagittal plane control of trunk posture after spinal cord injury,” M. Audu, L. Lombardo, R. Triolo, 41st Annual Meeting of the American Society of Biomechanics, Boulder CO, USA, August 8th –11th, 2017.   
4. “Neuroprosthetic implant improves walking ability in stroke patients,” NS Makowski, R Kobetic, LM Lombardo, KF Foglyano, G Pinault, SM Selkirk, RJ Triolo, Today’s Geriatric Medicine 2016, vol. 9, pgs. 28–29.   
5. “Reactive stepping with functional neuromuscular stimulation in response to forward directed perturbations,” A.J. Hunt, B.M. Odle, L.M. Lombardo, M.L. Audu, R.J. Triolo, 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, FL, August 16–20, 2016.   
6. “Center of pressure feedback control of posture in an implanted standing neuroprosthesis," B. Odle. A. Hunt, M. Audu, L. Lombardo, R. Triolo, 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, FL, August 16–20, 2016.   
7. “Center of pressure feedback control of task-dependent postures with an implanted standing neuroprosthesis,” B.M. Odle, A.J. Hunt, M.L. Audu, L. Lombardo, R.J. Triolo, North American Neuromodulation Society and NIH Neural Interfaces Conference Joint Meeting, Baltimore, MD, June 25–29, 2016.   
8. “Six-year Follow-up on Implanted Neuroprostheses for Upright Mobility after Paralysis,” R. Triolo, S. Bailey, K. Foglyano, R. Kobetic, L. Lombardo, M. Miller, S. Selkirk, G. Pinault, North American Neuromodulation Society (NANS) and Neural Interfaces Conference (NIC) Joint Meeting, Baltimore, MD, June 25–29, 2016.   
9. “Utilizing hip and ankle stimulation in an individual with MS to improve ambulation,” L.M. Lombardo, R. Kobetic, K. Foglyano, S. Selkirk, R.J. Triolo, Annual Meeting of Paralyzed Veterans of American, Orlando, FL, September 2016.   
10. “Improving Community Ambulation in Incomplete Spinal Cord Injury with a Neuroprosthesis,” L. Lombardo, S. Nogan-Baily, K. Foglyano, R. Kobetic, G. Pinault, R. Triolo, World Congress for Neurorehabilitation (WCNR 2016), Philadelphia, PA, May 11–13, 2016.   
11. “An Implanted Multi-Joint Neuroprosthesis for Gait Assistance Consistently Improves Walking Speed: A Case Report,” N. Makowski, R. Kobetic, L. Lombardo, K. Foglyano, G. Pinault, S. Selkirk, R. Triolo, World Congress for Neurorehabilitation (WCNR 2016), Philadelphia, PA, May 11–13, 2016.   
12. “Implanted Network for Motor Function in Cervical SCI,” K.L. Kilgore H.A. Hoyen, M.W. Keith, R.J. Triolo, A.M. Bryden, L. Lombardo, R.H. Hart, M. Miller, G.A. Nemunaitis, P.H. Peckham, 2016 American Spinal Injury Association (ASIA) Meeting, Philadelphia, PA, April 14–16, 2016.   
13. “Improving Walking with an Implanted Pulse Generator for Hip, Knee, and Ankle Control after Stroke: A Case Report”, N. Makowski, R. Kobetic, L. Lombardo, K. Foglyano, G. Pinault, S. Selkirk, R. Triolo. American Society of NeuroRehabilitation Annual Meeting, Chicago, IL, October 2015   
14. “Effect of Impalnted Neuroprosthersis on Walking Distance and Speed in Incomplete SCI,” L.M. Lombardo, SN. Bailey, K. Foglyano, N Makowski, G. Pinault, R. Kobetic, Annual Meeting of the Academy of Spinal Cord Injury Professionals, New Orleans, LA, September 2015.   
15. “A new Generation of Independence: A Fully-Implanted Neuroprosthesis for Upper Body Control in Cervical SCI,” A. Bryden, L.M. Lombardo, Annual Meeting of the Academy of Spinal Cord Injury Professionals, New Orleans, LA, September 2015.   
16. “A Neuroprosthesis for Decreasing Upper Extremity Demands During Pivot Transfers after Spinal Cord Injury,” S.N. Bailey, S. Slivka, N. DiSalvio, L.M. Lombardo, K.M. Foglyano, R.J. Triolo, World Congress on Medical Physics and Biomedical Engineering, Toronto Canada, June 12, 2015.   
17. “A Neuroprosthesis Decreasing Upper Extremity Demands During Pivot Transfers after Spinal Cord Injury,” S. Bailey, E. Slivka, N. DiSalvio, L. Lombardo, K. Foglyano, R. Triolo, 2015 Research ShowCase, Case Western Reserve University, April 17, 2015, Cleveland, OH.   
18. “A Neuroprosthesis for Decreasing Upper Extremity Demands During Pivot Transfers after Spinal Cord Injury,” S.N. Bailey, S. Slivka, N. DiSalvio, L.M. Lombardo, K.M. Foglyano, R.J. Triolo, American Society of Biomechanics, Akron, OH, February 17-18, 2015.   
19. “Modulating Gait Speed with Electromyography in Implanted Neuroprosthesis after Paralysis,” L.M. Lombardo, SN. Bailey, K. Foglyano, M. Miller, G. Pinault, R. Triolo, Annual Meeting of the Academy of Spinal Cord Injury Professionals, St. Louis, MO, September 2014.   
20. “A Neuroprosthesis for Maintaining Seated Balance after Spinal Cord Injury,” M.L Audu, L. Lombardo, R.J. Triolo, Military Health System Research Symposium (MHSRS), August, 2014, Ft Lauderdale, FL.   
21. “Fully-implanted Trunk and Upper Extremity Neuroprosthesis for Cervical SCI,” K. Kilgore, M. Keith, H. Hoyen, J. Anderson, R. Triolo, A. Bryden, L. Lombardo, G. Nemunaitis, P. Peckham, 2014 American Spinal Injury Society (ASIA) Meeting, May 14–17 2014, San Antonio, TX.   
22. “Incomplete Spinal Cord Injury Case Study of Controlling a Neuroprosthesis for Restoration of Gait with Implanted Myoelectric Signal Recording Electrodes,” M. Miller, K. Foglyano, L. Lombardo, S. N. Bailey, R. Triolo, 2014 Research ShowCase, Case Western Reserve University, April 18, 2014, Cleveland, OH.   
23. “Comparison of Self-Leveling Walker to Bilateral Handrails for Stair Negotiation,” S. N. Bailey, A. Sheehan, K. Foglyano, L. Lombardo, R. Triolo, 2014 Research ShowCase, Case Western Reserve University, April 18, 2014, Cleveland, OH.   
24. “Controlling Gait Speed with Electromyogram in an Implanted Neuroprosthesis for Incomplete Spinal Cord Injury,” K. Foglyano, L. Lombardo, S. N. Bailey, M. Miller, G. Pinault, R. Triolo, 2014 Research ShowCase, Case Western Reserve University, April 18, 2014, Cleveland, OH.   
25. “Comparison of Self-Leveling Walker to Bilateral Handrails for Stair Negotiation,” S. N. Bailey, A. Sheehan, K. Foglyano, L. Lombardo, R. Triolo, Midwest Meeting of the American Society of Biomechanics, March 4–5, 2014, Akron, OH.   
26. “Controlling Gait Speed with Electromyogram in an Implanted Neuroprosthesis for Incomplete Spinal Cord Injury,” K. Foglyano, L. Lombardo, M. Miller, S.N. Bailey, R. Triolo, Midwest Meeting of the American Society of Biomechanics, March 4–5, 2014, Akron, OH.   
27. “Myoelectric Control of an Implanted Neuroprosthesis to Restore Gait in Incomplete Spinal Cord Injury,” M. Miller, K. Foglyano, L. Lombardo, S. Bailey, R. Triolo, IEEE EMBS Neural Engineering Conference, San Diego, CA, November 2013.   
28. “The Effect of Various Functional Stimulation Control Systems on Gait in Hemiplegia,” K. Foglyano, L. Lombardo, L. Romanosfsky, R. Kobetic, R. Triolo, Research ShowCase, Case Western Reserve University, April 12, 2013.   
29. “The Effect of Various Functional Stimulation Control Systems on Gait in Hemiplegia,” K. Foglyano, L. Lombardo, L. Romanosfsky, R. Kobetic, R. Triolo, International FES Society Meeting, Banff Canada, September 9-12, 2012.   
30. “Enhancing Seated Posture and Bimanual Reach with Stimulation of the Hip and Trunk Muscles,” R.J. Triolo, S.N. Bailey, L.M. Lombardo, M.E. Miller, M.A. Richmond, American Spinal Cord Injury Society Meeting, Denver CO, April 2012.   
31. “Effects of Trunk Stimulation on Manual Wheelchair Propulsion Mechanics,” L.M. Lombardo, S.N. Bailey, K.M. Foglyano, M.E. Miller, M.A. Richmond, R.J. Triolo, American Spinal Cord Injury Society Meeting, Denver CO, April 2012.   
  
INVITED LECTURES, SEMINARS AND SHORT COURSES   
  
1. “Utilizing hip and ankle stimulation in an individual with MS to improve ambulation,” Instructional Course, Annual Meeting of Paralyzed Veterans of American, Orlando, FL, September 2016.   
2. “Utilizing Advanced Rehab Technologies in SCI,” Instructional Course, Ohio Physical Therapy Association Annual Conference, Columbus, OH, April 2013.   
3. “Utilizing Advanced Rehab Technologies in SCI,” Instructional Course, Walsh University, North Canton, OH, March 2013.   
4. “Functional Electrical Stimulation Programs for People with Spinal Cord Injury: Clinician and Consumer perspectives in the Clinic and at Home,” Instructional Course, Combined Section Meeting of the American Physical Therapy Association, January 2013, San Diego, CA.   
5. “Improving Seated Function by Controlling the Paralyzed Trunk with Electrical Stimulation,” Instructional Course, American Spinal Injury Association, Denver CO, April 19-21, 2012.

***Kevin Foglyano, BME***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Stephanie Bailey, BME***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Ronald Triolo, PhD***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***John McDaniel, PhD***  
Kent State University

*(no CV uploaded)*

**78**

**Epidural spinal cord stimulation affects bladder and bowel function – A Case report**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Matthias Walter, MD, FEBU***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Personal Statement   
Since November 2016, I am a postdoctoral research fellow (under mentorship of Dr. Krassioukov) at the autonomic research unit located within International Collaboration on Repair Discoveries (ICORD), University of British Columbia, in Vancouver, Canada.   
I am currently involved in numerous research studies and clinical trials focusing on amelioration of autonomic dysfunctions among individuals with spinal cord injury (SCI). The most noteworthy among these are the investigation on the effect of OnabotulinumtoxinA and Fesoterodine in management of neurogenic lower urinary tract dysfunctions NLUTD) to ameliorate life-threatening episodes of autonomic dysreflexia (AD), the characterization of urethral injuries in SCI wheel-chair athletes performing self-catheterization, and the development of an app called “ABC of AD” that instantly provides fundamental knowledge about AD to emergency room physicians.   
  
A.Positions and Honors   
Positions   
  
Academic Positions   
11/16- Present Postdoctoral Fellow (Full-time), Department of Medicine, Division of Physical Medicine   
and Rehabilitation, University of British Columbia (UBC), Autonomic Research Unit, International Collaboration on Repair Discoveries (ICORD), Vancouver, BC, Canada   
01/16 – 10/16 Postdoctoral Associate affiliated with ICORD, UBC, Vancouver, BC, Canada   
01/14 – 10/16 Postdoctoral Associate, SCI Center and Research, Neuro-Urology, Balgrist University   
Hospital, Zurich, Switzerland   
12/11 – 12/13 Doctorate Candidate, SCI Center and Research, Neuro-Urology, Balgrist University   
Hospital, Zurich, Switzerland   
  
Hospital Positions   
10/16 – 10/16 Staff Urologist, Cantonal Hospital Aarau (Switzerland)   
12/14 – 09/16 Residency – Urology, Full-time, Cantonal Hospital Aarau (Switzerland)   
02/10 – 08/11 Residency – Urology, University Hospital Basel (Switzerland)   
01/09 – 01/10 Residency – Pediatric Surgery, University Children's Hospital Zurich (Switzerland)   
08/07 – 07/08 Residency – Urology, Cantonal Hospital Baden (Switzerland)   
07/06 – 06/07 Residency – General Surgery, Cantonal Hospital Frauenfeld (Switzerland)   
  
B.Honors/Appointments   
02/17 INTERNATIONAL AUTONOMIC AWARD – Best overall presentation at 4th International   
Autonomic Symposium in Vancouver, Canada.   
09/16 UROLOGIST – Swiss Board Examination in Urology   
09/16 FELLOW OF THE EUROPEAN BOARD OF UROLOGY (FEBU)   
10/15 CONFERENCE TRAVEL AWARD - International Continence Society (ICS)   
Conference travel award recipient podium presentation at the 45th annual ICS meeting in Montréal, Canada.   
04/14 BEST POSTER PRESENTATION - European Association of Urology (EAU)   
Best poster presentation during Session 62 "neurogenic bladder: diagnosis & treatment” held   
at the annual meeting of the EAU in Stockholm, Sweden.   
  
C. Contribution to Science   
02/17 WALTER M\*, LEITNER L.\*, JARRAHI B, WANEK J, DIEFENBACHER J, MICHELS L, LIECHTI MD, KOLLIAS SS, KESSLER TM, MEHNERT U. A mechatronic infusion drainage system: New ways to studies the human lower urinary tract in fMRI. BJU International (IF 4.387)   
  
10/16 WALTER M\*, LEITNER L.\*, SAMMER U, KNÜPFER SC, MEHNERT U, KESSLER TM. Urodynamic investigation: A sensible tool to define normal lower urinary tract function? PLOS ONE (IF 3.057)   
  
09/16 LEITNER L, GUGGENBÜHL-ROY S, KNÜPFER SC, WALTER M, SCHNEIDER MP, TORNIC J, SAMMER U, MEHNERT U, KESSLER TM. More Than 15 Years of Experience with Intradetrusor OnabotulinumtoxinA Injections for Treating Refractory Neurogenic Detrusor Overactivity: Lessons to Be Learned. European Urology (IF 14.976)   
  
09/16 LEITNER L, SAMMER U, WALTER M, KNÜPFER SC, SCHNEIDER MP, SEIFERT B, TORNIC J, MEHNERT U, KESSLER TM. Antibiotic prophylaxis may not be necessary in patients with asymptomatic bacteriuria undergoing intradetrusor onabotulinumtoxinA injections for neurogenic detrusor overactivity. Scientific Reports (IF 5.228)   
  
03/16 WALTER M, WETTERAUER C, BRUDER E, OBERMANN E, SUBOTIC S, WYLER S. Renal cell carcinoma in a young adult - Do we need further investigations? Urology Case Reports (IF, none yet - first to come in 2017)   
  
03/16 WALTER M\*, KNÜPFER SC\*, LEITNER L, MEHNERT U, SCHUBERT M, CURT A, KESSLER TM. Autonomic dysreflexia and repeatability of cardiovascular changes during same session repeat urodynamic investigation in women with spinal cord injury. World Journal of Urology (IF 2.397)   
  
10/15 WALTER M\*, SAMMER U\*, KNÜPFER SC, MEHNERT U, BODE-LESNIEWSKA B, KESSLER TM. Do we need surveillance urethro-cystoscopy in patients with neurogenic lower urinary tract dysfunction? PLOS ONE (IF 3.057)   
  
01/15 WALTER M, ALTERMATT S, FURRER C, MEYER-HEIM A. Intrathecal baclofen therapy in children with acquired brain injuries after drowning: a case series. Brain Injury (IF 1.822)   
  
08/14 WALTER M\*, LEITNER L\*, FREUND P, MEHNERT U, MICHELS L, KOLLIAS S, KESSLER TM. Protocol for a prospective magnetic resonance imaging study on supraspinal lower urinary tract control in healthy subjects and spinal cord injury patients undergoing intradetrusor onabotulinumtoxinA injections for treating neurogenic detrusor overactivity. BMC Urology (IF 1.937)   
  
05/14 WALTER M, MICHELS L, KOLLIAS S, VAN KERREBROECK PE, KESSLER TM, MEHNERT U. Protocol for a prospective neuroimaging study investigating the supraspinal control of lower urinary tract function in healthy controls and patients with non-neurogenic lower urinary tract symptoms. BMJ Open (IF 2.063)   
  
08/13 WALTER M, ALTERMATT S, FURRER C, MEYER-HEIM A. Intrathecal baclofen therapy in children with severe spasticity: Outcome and Complications. Developmental Neurorehabilitation (IF 1.475)   
  
12/12 WALTER M, SAMMER U, KESSLER TM. Chronic pelvic pain syndrome: neurostimulation, neuromodulation and acupuncture. Urologe A [in German]. (IF 0.456)   
  
  
D.Research Support   
  
Ongoing   
09/17 – Michael Smith Foundation for Health Research (MSFHR) Trainee Award (Postdoctoral Research Fellowship) co-funded with Rick Hansen Institute (RHI) – Principal Investigator: Matthias Walter (Supervisor Dr. Krassioukov).   
  
03/17 – Wellspect – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
Urethral injury and bladder function assessment following SCI.   
  
06/16 – Rick Hansen Institute – Principal Investigator: Dr. Steeves (I am a Co-Investigator).   
Gastrointestinal (GI) and Urinary Tract (UT) Microbiome (MICRO) after Spinal Cord Injury (SCI).   
  
02/16 – Rick Hansen Institute – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
Development of a mobile app (telephone/iPod application) for emergency medicine physician (EMP) on recognition and management of life threatening episodes of autonomic dysreflexia (AD): “ABC of AD for EMP".   
  
07/12 – Rick Hansen Institute – Principal Investigator: Dr. Krassioukov (I am a Co-Investigator).   
BOTOX treatment for neurogenic detrusor hyperreflexia and prevention of autonomic dysreflexia following spinal cord injury.   
  
Completed   
11/11 – 11/14 Swiss National Science Foundation. PhD Scholarship ($ 145,620 CAD).

***Amanda Lee, BSc***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Alex Kavanagh, PEng, MPH, MD, FRCSC***  
Department of Urologic Sciences, Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Aaron Phillips, PhD***  
Physiology and Pharmacology, Cumming School of Medicine, Libin Cardiovascular Institute, Hotchkiss Brain Institute, University of Calgary

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

**79**

**Case reports on utilizing a ketogenic diet to improve neuro-recovery and metabolism following spinal cord injury (SCI)**

Thursday, May 03, 2018 07:00 AM - 08:00 AM

***Hammad Aslam, MD***  
University of Alabama at Birmingham

**CV:**  
Research and Educational Experiences:   
  
August 2017 Attendee Musculoskeletal Ultrasound Course   
Andrews Sports Medicine Institute   
  
2017-Present Co-researcher “How do you do the International Standards for Neurological   
Classification of Spinal Cord Injury Anorectal Exam?”   
Dr. Marcalee Alexander, Dr. Ralph J. Marino   
  
2017-Present Co-researcher “Effects of ketogenic diet on outcomes in acute spinal cord injury”   
Dr. Ceren Yarar-Fisher   
  
Spring 2015 Co-researcher “A historical study of appendicular fractures in veterans with traumatic   
chronic spinal cord injury: 2002–2007”   
Dr. Laura Carbone   
Medical College of Georgia, Augusta, GA   
  
Summer 2011 Research assistant “MRI measurements of arterial blood flow and tissue perfusion in people   
with spinal cord injuries”   
Dr. Kevin McCully   
Exercise Vascular Biology Laboratory   
Kinesiology Department, University of Georgia   
  
Spring 2011 Research participant and advisor to   
students and research assistants   
Dr. Kevin McCully   
Exercise Vascular Biology Laboratory   
Kinesiology Department, University of Georgia   
  
2007-2008 Research assistant “Electron-induced dissociation of glycosaminoglycan tetrasaccharides”   
Dr. I. Jonathon Amster   
Chemistry Department, University of Georgia   
  
  
Publications:   
  
Spring 2016 Monique Bethel, Lauren Bailey, Frances Weaver, Robert L. Harmon, Michael   
M. Priebe, Brian Le, Hammad Aslam, Zachary Fausel, Helen Hoenig & Laura D. Carbone (2016):   
A historical study of appendicular fractures in veterans with traumatic chronic spinal cord   
injury: 2002–2007, The Journal of Spinal Cord Medicine, DOI: 10.1080/10790268.2016.1149930   
  
Fall 2008 Wolff, Jeremy J., Laremore, Tatiana N., Aslam, Hammad, Lindhardt, Robert J., Amster, I. Jonathan. Electron-induced   
dissociation of glycosaminoglycan tetrasaccharides, J Am Soc Mass Spectrom. 2008 Oct;19(10):1449-58. doi:   
10.1016/j.jasms.2008.06.024.   
  
  
Presentations:   
  
August 2017 Speaker to UAB medical school class “Spinal cord injury”   
  
October 2016 Oral presentation at AAPM&R 2016   
“Best Neurological Research Posters”   
“A historical study of appendicular fractures in veterans with   
traumatic chronic spinal cord injury: 2002–2007”   
  
August 2016 Speaker to UAB medical school class “Spinal cord injury”   
  
May 2015 Speaker at TEDxCentennialParkWomen “The Fortune in Failure”   
  
May 2014 Keynote speaker at Brookwood High   
School’s Baccalaureate Ceremony   
(Untitled)   
  
Fall 2013 Panel member for Shepherd Center patients “Been There, Done That”   
  
Spring 2013 Speaker at MIST Atlanta “Patience”   
  
Fall 2012 Speaker at TEDxGeorgiaTech “Everyone has a disability”   
  
Honors and Publications Featured In   
Fall 2016 AAPM&R President’s Citation Award Nominee   
  
Fall 2016 University of Georgia 40 Under 40 Alumni   
  
Fall 2016 Islamic Speakers Bureau 40 Under 40 Georgia Muslims   
  
February 2016 ConquerHub Podcast “Achieving the Impossible w/ Dr. Hammad Aslam”   
  
January 2016 Georgia Health News “Living with disability helps steer young doctor into fascinating specialty”   
  
June 2015 Men’s Health Live June 30, 2015 Podcast, Segment 11: Nearly Crushed to Death   
  
June 2015 MensHealth.com “The Important Thing You Gain after Nearly Being Crushed to Death”   
  
October 2015 The Muslim Observer “I’m sorry, but actually I’m a doctor”   
  
September 2013 Shepherd Center Peers “How do you roll?”   
  
April 2013 Muslim Heroes “MH Exclusive: Hammad Aslam”   
  
February 2013 UGA PreMed “Meet Hammad Aslam”   
  
July 2012 Georgia Health News “Disabling injury doesn’t shake student’s drive to become doctor”   
  
July 2012 emel “With Hardship Comes Ease”   
  
November 2011 Gwinnett Daily Post “Brookwood grad pursuing doctorate after being paralyzed”   
  
November 2011 Muslim Heroes “204. Hammad Aslam (Medical Student, Medical College of Georgia)”   
  
Spring 2011 GHSU Today “Rolling with the Punches”   
  
November 2010 Georgia Health News “A portrait in perseverance”

***Cassandra Renfro, DO***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Patrick Bosarge, MD***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Adarsh Kulkani,***   
University of Alabama at Birmingham

*(no CV uploaded)*

***Hatice Cetin, PT, MSc***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Baris Cetin, PT, MSc***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Keneshia Kirksey, MD***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Amie McLain, MD***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Ceren Yarar-Fisher, PT, PhD***  
University of Alabama at Birmingham

*(no CV uploaded)*

**80**

**Problem solving and social support patterns among family caregivers of adults with SCI**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Kerry O'Rourke, MPH, MA***  
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Erin Kelly, PhD***  
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Ali January, PhD***  
Shriners Hospitals for Children Chicago

*(no CV uploaded)*

***Azadeh Ghaffari, PhD***  
Hines Veteran Administration

*(no CV uploaded)*

***Gerald Harris, PhD***  
Marquette University

*(no CV uploaded)*

***Michael Richardson, MD***  
Hines Veteran Administration

*(no CV uploaded)*

***David Chen, MD***  
Shirley Ryan Abilitylab

*(no CV uploaded)*

***Lee Ray, MD***  
Schwab Rehabilitation Hospital

*(no CV uploaded)*

**81**

**12-Month Safety and Efficacy Results from the SCiStar Study – A Phase 1/2a Trial of Human Embryonic Stem Cell-Derived Oligodendrocyte Progenitor Cells (AST-OPC1) in Patients with Subacute Cervical Spinal Cord Injury**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Edward Wirth III, MD, PhD***  
Asterias Biotherapeutics

**CV:**  
Edward D. Wirth, III, MD, PhD   
Chief Medical Officer   
Asterias Biotherapeutics, Inc.   
  
A. Personal Statement   
My research in academia and industry to date has focused primarily on spinal cord injury (SCI), neural tissue transplantation, magnetic resonance imaging (MRI), cell-based therapies derived from pluripotent stem cells and, to a lesser extent, on dendritic cell-based immunotherapies for cancer. As a graduate student and then faculty member at the University of Florida, I developed and applied MRI to the study of neural tissue grafts in the injured spinal cord and then planned and conducted the first Phase 1 clinical study in the USA of neural tissue transplantation into human subjects who had developed post-traumatic syringomyelia following SCI. As Medical Director for Regenerative Medicine at Geron Corporation, I planned and led the world's first clinical trial of a human embryonic stem cell (hESC)-derived product, GRNOPC1, in patients with subacute spinal cord injuries. During a brief tenure as Chief Science Officer at InVivo Therapeutics Corporation, I designed the preclinical safety studies that enabled IDE clearance for initial clinical testing of a neuro-spinal scaffold in acute SCI. Since joining Asterias Biotherapeutics in 2013, my primary focus has been the continued clinical development of hESC-derived oligodendrocyte progenitor cells (AST-OPC1, formerly GRNOPC1) as a potential therapy for patients with subacute cervical SCI.   
  
B. Positions and Honors   
  
1994-1996 Visiting Assistant, Department of Neuroscience, University of Florida   
1996-1999 Research Assistant Professor; Department of Neuroscience, University of Florida   
1999-2001 Assistant Professor, Department of Neuroscience, University of Florida   
2002 Assistant Professor, Department of Neurosurgery, Rush-Presbyterian-St. Luke’s Medical Center   
2002-2004 Assistant Professor, Department of Surgery, Section of Neurosurgery, University of Chicago   
2004-2007 Associate Medical Director, Geron Corporation   
2007-2011 Medical Director, Regenerative Medicine, Geron Corporation   
2011-2012 Chief Science Officer, InVivo Therapeutics Corporation   
2013-2015 Chief Translational Officer, Asterias Biotherapeutics, Inc.   
2015- Chief Medical Officer, Asterias Biotherapeutics, Inc.   
  
C. Contributions to Science   
  
Wirth,E.D., III, Theele,D.P., Mareci,T.H., Anderson,D.K., and Reier,P.J., Dynamic assessment of intraspinal neural graft survival using magnetic resonance imaging, Exp.Neurol. 136: 64-72 (1995).   
  
Giovanini,M.A., Reier,P.J., Eskin,T.A., Wirth,E., and Anderson,D.K., Characteristics of human fetal spinal cord grafts in the adult rat spinal cord: influences of lesion and grafting conditions, Exp.Neurol. 148:523-543 (1997).   
  
Wirth,E.D., III, Reier,P.J., Howland,D.R., and Anderson,D.K., Fetal grafting in animal models of spinal cord injury, Top.Spinal Cord Inj.Rehabil. 6:52-64 (2000).   
  
Inglis,B.A., Bossart,E.L., Buckley,D.L., Wirth,E.D., III, and Mareci,T.H., Visualization of neural tissue water compartments using biexponential diffusion tensor MRI, Magn Reson.Med. 45:580-587 (2001).   
  
Thompson,F.J., Reier,P.J., Uthman,B., Mott,S., Fessler,R.G., Behrman,A., Trimble,M., Anderson,D.K., and Wirth,E.D., III, Neurophysiological assessment of the feasibility and safety of neural tissue transplantation in patients with syringomyelia, J.Neurotrauma 18:931-945 (2001).   
  
Wirth,E.D., III, Reier,P.J., Fessler,R.G., Thompson,F.J., Uthman,B., Behrman,A., Beard,J., Vierck,C.J., and Anderson,D.K., Feasibility and safety of neural tissue transplantation in patients with syringomyelia, J.Neurotrauma 18:911-929 (2001).   
  
Shepherd,T.M., Blackband,S.J., and Wirth,E.D., III, Simultaneous diffusion MRI measurements from multiple perfused rat hippocampal slices, Magn.Reson.Med. 48:565-569 (2002).   
  
Shepherd,T.M., Thelwall,P.E., Blackband,S.J., Pike,B.R., Hayes,R.L., and Wirth,E.D., III, Diffusion MRI study of a rat hippocampal slice model for acute brain injury, J.Cereb.Blood Flow Metab. 23:1461-1470 (2003).   
  
Harrop JS, Maltenfort MG, Geisler FH, Coleman W, Jones LA, Wirth E, and Vaccaro A., Traumatic thoracic ASIA A examinations and potential for clinical trials, Spine. 34:2525-2529 (2009).   
  
Wirth E 3rd, Lebkowski JS, Lebacqz K., Response to Frederic Bretzner et al. "Target Populations for First-In-Human Embryonic Stem Cell Research in Spinal Cord Injury", Cell Stem Cell 8:476-478 (2011).   
  
Priest CA, Manley NC, Denham J, Wirth ED 3rd, Lebkowski JS., Preclinical safety of human embryonic stem cell-derived oligodendrocyte progenitors supporting clinical trials in spinal cord injury, Regen Med. 10:939-58 (2015).   
  
  
D. Additional Information: Research Support and/or Scholastic Performance   
  
Co-Investigator: California Institute of Regenerative Medicine (CIRM) Strategic Partnership Award – SP3A-07552 – “A Phase I/IIa Dose Escalation Safety Study of AST-OPC1 in Patients with Cervical Sensorimotor Complete Spinal Cord Injury,” Principal Investigator: Jane Lebkowski, Ph.D., 2014 - 2018

***Richard Fessler, MD, PhD***  
Rush University

*(no CV uploaded)*

***Donald Leslie, MD***  
Shepherd Center

*(no CV uploaded)*

***Gary Steinberg, MD, PhD***  
Stanford University

*(no CV uploaded)*

***Stephen McKenna, MD***  
Santa Clara Valley Medical Center

*(no CV uploaded)*

***Charles Liu, MD, PhD***  
Usc Keck Medical Center

*(no CV uploaded)*

***Shekar Kurpad, MD, PhD***  
Medical College of Wisconsin

*(no CV uploaded)*

***Susy Chen, MD***  
Asterias Biotherapeutics

*(no CV uploaded)*

***Jane Lebkowski, PhD***  
Asterias Biotherapeutics

*(no CV uploaded)*

**82**

**Zest: Promoting Psychological Health of Women with SCI in the Virtual World of Second Life**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Susan Robinson-Whelen, PhD***  
Tirr Memorial Hermann / Baylor College of Medicine

**CV:**  
place holder for now

***Rosemary Hughes, PhD***  
University of Montana

*(no CV uploaded)*

***Heather Taylor, PhD***  
Tirr Memorial Hermann

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***Rachel Markley, MPH***  
Tirr Memorial Hermann

*(no CV uploaded)*

***Jose Vega, BS***  
Tirr Memorial Hermann

*(no CV uploaded)*

***Margaret Nosek, PhD***  
Tirr Memorial Hermann / Baylor College of Medicine

*(no CV uploaded)*

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**A New Distributed Neuroprosthesis Enables Hand Grasp and Trunk Posture after Cervical Spinal Cord Injury**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Kevin Kilgore, PhD***  
Metrohealth Medical Center

**CV:**  
NAME: Kevin L. Kilgore   
POSITION TITLE: Professor of Orthopaedics   
EDUCATION/TRAINING   
  
University of Iowa, Iowa City, IA B.S. 1983 Biomedical Engineering   
Case Western Reserve University, Cleveland, OH M.S. 1987 Biomedical Engineering   
Case Western Reserve University, Cleveland, OH Ph.D. 1991 Biomedical Engineering   
  
A. Personal Statement   
I have over 30 years of experience with the design, implementation and clinical application of implantable neuroprosthetic and neuromodulation systems. I have performed both animal and human studies related to the application of electrical fields to neural tissue for the purpose of controlling action potentials – either by activation or suppression (conduction block). The initial focus of my career was in the application of functional electrical stimulation (FES) for individuals with spinal cord injury for upper extremity function. In the early 1990s, I was part of the Steering Committee that planned and directed the Freehand multi-center clinical trial that began in 1992 and continued until FDA approval was obtained in 1997. From 2003-2013 we conducted a clinical study of the first implanted neuroprosthesis with myoelectric control for cervical SCI. I have participated in over 50 surgical implantation procedures for neuroprosthetic systems.   
Over the past 15 years I have worked closely with Dr. Peckham and Mr. Brian Smith, Chief Implant Engineer, in the development of a new approach to implanted neuroprosthetic design, the Networked Neuroprosthetic (NNP) System. We believe that the NNP System is a revolutionary step in the design of implantable neuroprosthetics. It is based on a completely modular architecture and utilizes common network communication protocols to establish an orchestrated operation of the entire system. We believe that this system is absolutely critical for the next generation of motor neuroprostheses for diseases such as spinal cord injury, stroke, multiple sclerosis and other disabilities. Clinical feasibility study of this system began with the first human implant in early 2016.   
My work throughout my career has been highly collaborative. As part of the Cleveland FES Center, I work daily with other investigators, physicians, therapists, nurses and rehabilitation engineers. We evaluate SCI patients for potential benefit from both clinical and research interventions. My staff is highly experienced in the implementation of neuroprostheses for individuals with cervical SCI, including Anne Bryden, occupational therapist, and Ron Hart, a rehabilitation engineer, both of whom have over 20 years of experience. This project is a key component of our broad goal of improving hand function in SCI through all means possible and disseminating successful technologies as broadly as possible to the SCI community.   
Peckham PH, Kilgore KL, Challenges and opportunities in restoring function after paralysis, IEEE Trans. BME, 60(3):602-609, 2013.   
\*\*\*Kilgore KL, Hoyen HA, Bryden AM, Hart RL, Keith MW, Peckham PH, Montague FW, Sams CJ, Bhadra N, An Implanted Upper Extremity Neuroprosthesis Utilizing Myoelectric Control, Journal of Hand Surgery, 33A:539-550, 2008. NIHMSID 125325.   
\*\*Peckham PH, Keith MW, Kilgore KL, Grill JH, Wuolle KS, Thrope GB, Gorman P, Hobby J, Mulcahey MJ, Carroll S, Hentz V, Wiegner A., Efficacy of an Implanted Neuroprosthesis for Restoring Hand Grasp in Tetraplegia: A Multicenter Study, Arch. Physical Medicine and Rehabilitation, 82:1380-8, 2001.   
\*\*\*\*Kilgore K.L., Peckham P.H., Keith M.W., Thrope G.B., Wuolle K.S., Bryden A.S., Hart R.L.: An implanted upper extremity neuroprosthesis: A five patient review. J B Joint Surg, 79A(4):533-541, 1997.   
\*\* Received the "Sidney and Elizabeth Licht Award for Excellence in Scientific Writing" from the American Congress of Rehabilitation Medicine, October 2002.   
\*\*\* Received the “Southern California Society for Surgery of the Hand Journal Club Award” as the most likely to alter the future practice of hand surgery, July 2009.   
\*\*\*\* Identified as one of the top 50 most-cited articles on hand surgery in the last 20-plus years [To et al., J Hand Surg, 2013].   
  
B. Positions and Honors   
Positions and Employment   
1983-1991 Graduate Research Assistant, Case Western Reserve University, Cleveland, Ohio   
1988-1991 Biomedical Engineer, Medical Research, Cleveland Veterans Affairs   
Medical Center, Cleveland, Ohio   
1991-1992 Research Associate, Case Western Reserve University, Cleveland, Ohio   
1992-1994 Biomedical Engineer, Research Service, Louis Stokes Cleveland Department of Veterans Affairs Medical Center, Cleveland, Ohio   
1992-Pres Adjunct Assistant Professor, Dept. Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
1994-2015 Program Manager, Dept. Orthopaedics, MetroHealth Medical Center, Cleveland, Ohio   
1998-Pres Biomedical Engineer, Research Service, Louis Stokes Cleveland Department of Veterans Affairs Medical Center, Cleveland, Ohio   
2005-2015 Clinical Instructor, Dept. Orthopaedics, Case Western Reserve University School of Medicine   
2015-Pres Professor, Dept. Orthopaedics, Case Western Reserve University School of Medicine and MetroHealth Medical Center, Cleveland, Ohio   
  
Other Experience and Professional Membership   
NIH Special Emphasis Panel SPARC Pre-Clinical Development...New Market Indications ETTN-B(55), July 2016; NIH-NINDS Research Program Award R35 Review Panel: ZNS SRB N(11), March, 2016; National Institutes of Health Special Emphasis Panel: ZNS1 SRB-G (02), BRAIN: Technologies for Large - Scale Recording, July, 2015; Department of Veterans Affairs Rehabilitation Research and Development Service Study Section, Small Projects in Rehabilitation Research (SPiRE), May 2015; National Institutes of Health Special Emphasis Panel: ZNS1 SRB-G 77, BRAIN: Technologies for Large - Scale Recording, July, 2014; National Institutes of Health Special Emphasis Panel/Scientific Review Group 2013/10 ZNS1 SRB-N (04), June, 2013; National Institutes of Health Study Section Bioengineering of Neuroscience, Vision and Low Vision Technologies (BNVT), May 2013; Department of Veterans Affairs Merit Review Study Section, Aging & Neurodegenerative Diseases Panel, August 2010; National Institutes of Health Study Section Neurotechnology (NT), June 2010, February 2011; National Institutes of Health Study Section ETTN B(80), June 2010, February 2011; National Institutes of Health Study Section ZRG ETTN F(02)M, June 2010 (Co-chair); Department of Veterans Affairs Merit Review Study Section, Orthopaedics, March 2007, August 2007, February 2008, August 2008, March 2009, March 2010; National Institutes of Health Study Section Neurotechnology (ZRG1 MDCN-G (02) M), March 2008; Department of Veterans Affairs Merit Review Study Section, Prosthetics, August 2004   
  
  
C. Contribution to Science   
Full publication list can be found at: https://scholar.google.com/citations?user=LCFOxJIAAAAJ&hl=en   
  
1. Clinical Feasibility Study of an Implanted Neuroprosthesis for Upper Extremity Function in Spinal Cord Injury (SCI)   
Historical Background. Over the past 30+ years, I have been working directly with the implementation of functional electrical stimulation (FES) neuroprosthetic systems to provide hand function for SCI individuals. The neuroprosthesis consists of an implanted stimulator that is controlled by the user through the generation of a myoelectric signal from one or more muscles under voluntary control, as shown in the accompanying figure. Central Findings. These neuroprostheses provide improved hand function and allow the subjects to be more independent in performing various activities of daily living, including the ability to eat, write, brush teeth, perform office tasks, embroidery, and use a cell phone. The independence gained through the use of the neuroprosthesis cannot be achieved through any other means. Application of Findings. Significant effort has been applied to transfer our neuroprosthetic systems into regular clinical practice. A multi-center trial was conducted that ultimately resulted in marketing approval by the FDA. We have now developed a non-profit/for-profit model designed to ensure the continued availability of this technology to orphan disease populations such as SCI. Role. I lead the research team that implements the neuroprosthesis with each patient, beginning with initial screening through long-term follow-up. In the early 1990s, I was part of the Steering Committee that planned and directed the Freehand multi-center clinical trial that began in 1992 and continued until FDA approval was obtained in 1997. I was involved in the planning, organization and presentation of multiple training sessions during the 1990s. In 2003 we began a clinical trial of the world’s first implanted neuroprosthesis with myoelectric control. I have participated in over 50 surgical implantation procedures for neuroprosthetic systems.   
Ho CH, Triolo RJ, Elias AL, Kilgore KL, DiMarco AF, Bogie K, Vette AH, Audu ML, Kobetic R, Chang SR, Chan KM, Dukelow S, Bourbeau DJ, Brose SW, Gustafson KJ, Kiss ZHT, Mushahwar VK. Functional Electrical Stimulation and Spinal Cord Injury. Physical Medicine and Rehabilitation Clinics of North America. 25(3):631-654, 2014.   
Kilgore KL, Hoyen HA, Bryden AM, Hart RL, Keith MW, Peckham PH, Montague FW, Sams CJ, Bhadra N, An Implanted Upper Extremity Neuroprosthesis Utilizing Myoelectric Control, Journal of Hand Surgery, 33A:539-550, 2008. NIHMSID 125325.   
Kilgore KL, Peckham PH, Keith MW, Montague FW, Hart RL, Gazdik MM, Bryden AM, Snyder SA, Stage TG. The durability of implanted electrodes and leads in upper extremity neuroprostheses. J. Rehab Research and Development 40(6):457-468, 2003.   
Kilgore K.L., Peckham P.H., Keith M.W., Thrope G.B., Wuolle K.S., Bryden A.S., Hart R.L.: An implanted upper extremity neuroprosthesis: A five patient review. J B Joint Surg, 79A(4):533-541, 1997.   
  
2. Design and Development of a Modular Network of Implantable Components – the “Networked Neuroprosthesis”   
Historical Background. Over the past decade I have worked closely with Dr. Peckham and Mr. Brian Smith, Chief Implant Engineer, in the development of a new approach to implanted neuroprosthetic design, the Networked Neuroprosthetic (NNP) System. The NNP System is a revolutionary step in the design of implantable neuroprosthetics. It is based on a completely modular architecture and utilizes common network communication protocols to establish an orchestrated operation of the entire system. It is shown schematically in the accompanying figure. Central Findings. This system is absolutely critical for the next generation of motor neuroprostheses for diseases such as spinal cord injury, stroke, multiple sclerosis and other disabilities. Application of Findings. We have now received the first Investigational Device Exemption for the NNP and anticipate the first human application (in SCI) of this system in the fall of 2015. Role. Inventor and PI or Co-inv of all grants developing this system over the past 15 years and have helped lead the engineering design team, with a focus on the clinical impact.   
Peckham PH, Kilgore KL, Challenges and opportunities in restoring function after paralysis, IEEE Trans. BME, 60(3):602-609, 2013.   
Kilgore KL, Sensors for motor neuroprostheses, In A. Inmann and D. Hodgins, (eds.): Intelligent implantable sensor systems for medical applications, Woodhead Publishing, Cambridge, UK, 2013.   
US Patent No. US 7,260,436 - “Implantable Networked Neural System”   
Inventors: Kevin Kilgore, Hunter Peckham, Tim Crish, Brian Smith; Issued: 8/21/2007   
US Patent No. US 8,768,482 – “Neural Prosthesis”   
Inventors: Kevin Kilgore, Hunter Peckham, Tim Crish, Brian Smith; Issued: 7/1/2014   
  
3. Kilohertz Frequency Electrical Nerve Block   
Historical Background. I became interested in nerve conduction block as I sought to apply our technology to individuals with stroke and cerebral palsy, where the spasticity that is common in these conditions is very problematic for FES applications. Through discussions with colleagues and a review of the literature, I realized that the use of kilohertz frequency alternating current (KHFAC) appeared to have the characteristics of an excellent nerve block for these applications, but the existing scientific literature was very weak. After gaining initial R01 funding in this work in 2000, I was joined by Dr. Niloy Bhadra, who explored this area with me as his Ph.D. project in Biomedical Engineering. Central Findings. KHFAC can produce a quickly initiated and rapidly reversible nerve conduction block, as shown in the accompanying figure. We have demonstrated this effect in multiple mammalian models. KHFAC had significant potential for use in the treatment of a variety of diseases beyond our initial target of muscle spasticity, particularly chronic pain. Application of Findings. Through the dissemination of our results and through technology transfer, KHFAC has become used in a variety of clinical applications, including obesity treatment (vagal nerve block), amputee pain treatment (amputee block), and spinal cord stimulation (SCS). Unfortunately, there is currently an apparent lack of knowledge of the unique features of KHFAC in the medical device industry, and this has resulted in conflicting reports of both success and failure regarding the use of KHFAC in SCS. We are finding that the information reported in the literature frequently ignores a number of critical factors related to the delivery of KHFAC to the spinal cord, and therefore the reports in the literature provide very little insight regarding the mechanisms of this new modality. We are currently working to address this knowledge gap. Role. Inventor and Principal Investigator.   
Kilgore KL, Bhadra N, Nerve conduction block utilizing high-frequency alternating current, Medical and Biological Engineering and Computing, 42, 394-406, 2004.   
Bhadra N, Kilgore KL, High-frequency electrical conduction block of mammalian peripheral motor nerve, Muscle and Nerve, 32, 782-790, 2005.   
Kilgore KL, Bhadra N, Reversible nerve conduction block using kilohertz frequency alternating current, Neuromodulation, 17 (3), 242 -55, 2013.   
US Patent No. US 7,389,145 – “Systems and Methods for Reversibly Blocking Nerve Activity"   
Inventors: Kevin Kilgore, Warren Grill, Cameron McIntyre, J. Thomas Mortimer; Issued: 6/17/2008   
  
4. Charge-Balanced Direct Current (CBDC) Electrical Nerve Block   
Historical Background. Although it has been known that direct current (DC) could be used to block nerve conduction, it has not been practical to use this approach due to the irreversible chemical reactions at the electrode. Our innovative concept was to consider whether high charge capacity materials, such as platinum-black, iridium oxide, and carbon could be used to produce a “safe” DC block. Central Findings. As shown in the accompanying figure, we have developed a charge-balanced waveform that allows for up ten seconds of DC block. We have been able to repeatedly deliver this waveform for up to six hours in an acute rat preparation without nerve or electrode damage. We are now preparing to test this approach in chronic in-vivo tests. Application of Findings. CBDC has some potential advantages over KHFAC nerve block, including the fact that the block can be generated without producing any onset activity and the potential for the use of a wider variety of electrode designs, thus simplifying clinical implementation. Role. Inventor and Principal Investigator.   
Bhadra N, Kilgore KL, Direct current electrical conduction block of peripheral nerve, IEEE Transactions on Neural Systems and Rehabilitation Engineering, 12, 313-324, 2004.   
Vrabec T, Wainright J, Bhadra N, Bhadra N, Kilgore K, Use of High Surface Area Electrodes for Safe Delivery of Direct Current for Nerve Conduction Block, ECS Trans. 50(28): 31-37, 2013.   
Franke M, Vrabec T, Wainright J, Bhadra N, Bhadra N, Kilgore KL. Combined KHFAC+DC nerve block without onset or reduced nerve conductivity after block. J Neural Engineering, 11(5):056012, 2014.   
Vrabec TL, Bhadra N, Wainright JS, Bhadra N, Franke M, Kilgore KL. Characterization of high capacitance electrodes for the application of direct current electrical nerve block. Med & Biol Eng & Comput, 54(1): 191-203, 2016.   
Vrabec T, Bhadra N, Van Acker G, Bhadra N, Kilgore K. Continuous direct current nerve block using multi-contact high capacitance electrodes. IEEE Trans Neural Syst Rehabil Eng, Jul 9 (Epub), 2016.   
  
  
5. Below-injury Control Sources for Cervical Spinal Cord Injury   
Historical Background. Multiple methods of control for neuroprosthetic systems have been proposed, but we have found that myoelectric control is universally superior to other forms of control. It is easy to customize myoelectric control to the physiology and needs of each individual patient. It is relatively easy to implement in an implanted system. We have now discovered that even SCI subjects who were classified as neurologically complete can often generate myoelectric signals in their lower leg muscles. Central Findings. The myoelectric signals we obtain in the lower leg of complete cervical SCI subjects under direct voluntary control. In most cases, no visible contraction can be identified, and thus these are sub-clinical findings. However, the signal is sufficiently robust to be used as a control source for neuroprosthetic systems. Application of Findings. Our clinical studies demonstrate that subjects can utilize this form of control to gain increased independence in daily activities. I anticipate that myoelectric control will be enhanced with other control inputs (such as joint position, eye gaze, nerve signals and eventually even cortical signals), but I expect myoelectric control to remain a part of these systems for the foreseeable future. Role. Principal Investigator and Co-investigator.   
Moss CW, Kilgore KL, Peckham PH. Training to improve volitional muscle activity in clinically paralyzed muscles for neuroprosthesis control. Conf Proc IEEE Eng Med Biol Soc. 2011;2011:5794-7. doi: 10.1109/IEMBS.2011.6091434.   
Moss CW, Kilgore KL, Peckham, PH, A novel command signal for motor neuroprosthetic control, Neural Rehabilitation and Neural Repair, 2011 Nov-Dec; 25(9):847-54.   
  
D. Research Support   
Ongoing Research Support   
R01-NS-089530 Kilgore (PI) 09/1/2015-06/30/2019   
“Kilohertz Frequency Alternating Current Spinal Cord Stimulation for Chronic Pain Relief”   
The goal of this project is to experimentally determine the mechanism of action of kilohertz frequency waveforms applied to the spinal cord for pain relief. The project includes development of new technologies and approaches to spinal cord stimulation and block.   
  
I01-RX-001804 – VA RRD Kilgore (PI) 05/01/2015-04/30/2019   
“Whole-body Neuroprosthetic Approach for Incomplete Cervical Spinal Cord Injury”   
Evaluation of a fully implanted neuroprosthesis for incomplete spinal cord injury, including developing the screening methods and outcome measures to perform valid clinical studies in this population.   
  
USAMRAA-SCIRP Peckham (PI) 09/30/2014-09/29/2017   
“Efficacy Study of a Fully Implanted Neuroprosthesis for Functional Benefit to Individuals with Tetraplegia”   
Clinical trial to evaluate the efficacy of a networked neuroprosthesis for hand function in spinal cord injury.   
Role: Co-Investigator   
  
Wallace H. Coulter Foundation Bhadra (PI) 09/01/2015-08/31/2016   
“Evaluation of a Percutaneous Electrode for Direct Current Nerve Block”   
Chronic test of direct current electrical nerve block in rats.   
Role: Co-Investigator   
  
U01 NS-069517 Peckham (PI) 06/01/2010-05/31/2017   
“Multi-functional Neuroprosthetic System for Restoration of Motor Function”   
The purpose of this project is to implement a fully implanted system for individuals with SCI that is capable of providing four distinct functions: hand grasp, trunk stability, cough ability and bladder control.   
Role: Co-Investigator   
  
Halyard Health – Sponsored Research Agreement Kilgore/Bhadra (Co-PI) 6/30/2016-12/29/2017   
“Investigation of Charge-Balanced Direct Current Block”   
The goal of this study is to evaluate the safety and effectiveness of electrical block for acute pain, especially post-operative pain.   
  
Completed Research Support (last three years)   
R01- EB-001740 Peckham (PI) 05/01/2012-04/30/2016   
R01-NS-074149 “Separated Interface Electrode” Bhadra (PI) 03/01/2011-02/28/2016   
GSK – SRA “Electrical Nerve Block to Control Hypertension” Bhadra (PI) 10/01/2014-1/31/2016   
NIH R01- Below Injury Control Sources for SCI Kilgore (PI) 9/30/2011 – 8/31/2015   
VA Merit Review- Debilitating Contractures in SCI Kilgore (PI) 04/01/2011-03/31/2014

***Harry Hoyen, MD***  
Metrohealth Medical Center

*(no CV uploaded)*

***Michael Keith, MD***  
Metrohealth Medical Center

*(no CV uploaded)*

***Ronald Triolo, PhD***  
Louis Stokes Cleveland Department of Veterans Affairs

*(no CV uploaded)*

***Anne Bryden, OTR/L, MA***  
Case Western Reserve University

*(no CV uploaded)*

***Lisa Lombardo, PT***  
Louis Stokes Cleveland Department of Veterans Affairs

*(no CV uploaded)*

***Ronald Hart, MS***  
Louis Stokes Cleveland Department of Veterans Affairs

*(no CV uploaded)*

***Michael Miller, MS***  
Louis Stokes Cleveland Department of Veterans Affairs

*(no CV uploaded)*

***Gregory Nemunaitis, MD***  
Metrohealth Medical Center

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***P Peckham, PhD***  
Case Western Reserve University

*(no CV uploaded)*

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**Feasibility and effectiveness of delivering an adapted weight loss intervention for people with spinal cord injury**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Simon Driver, PhD***  
Baylor Institute for Rehabilitation

*(no CV uploaded)*

***Kaye Kramer, DrPH, MPH, RN***  
Innovative Wellness Solutions

*(no CV uploaded)*

***Jaehoon Lee, PhD***  
Texas Tech University

*(no CV uploaded)*

***Katherine Froehlich-Grobe, PhD***  
Baylor Institute for Rehabilitation

**CV:**  
A. Personal Statement.   
Dr. Froehlich-Grobe received her master’s and doctoral training in behavioral psychology and is currently the Associate Director of Research at Baylor Institute for Rehabilitation after spending 16 years in academic settings. Dr. Froehlich-Grobe brings 20 years of research experience conducting studies that explore and promote the health and function of individuals with physical disabilities. Most of her research career to date has focused on exploring and targeting theory-based approaches to address barriers to promoting health for this population. Her currently funded research program includes a study to promote weight loss among a mobility impaired sample and developing a web-based intervention to promote exercise among an SCI sample. She has also conducted focus groups (Froehlich, Nary, & White, 2002), surveys (Froehlich et al., 2002; Nary, Froehlich, & White, 2000) and randomized clinical trials promoting exercise (Froehlich-Grobe et al., 2014; Froehlich-Grobe et al., 2012; Froehlich-Grobe & White, 2004) with heterogeneous samples of individuals with physical disabilities. She was PI of an NIH-funded randomized controlled home-based exercise trial conducted with wheelchair users (Froehlich-Grobe et al., 2014) that delivered a phone-based intervention. She has also performed physical accessibility surveys of recreation facilities (Nary et al., 2000), polling places (Pohl et al., 2006), and public housing (Froehlich-Grobe et al., 2008). Her extensive knowledge and background in the area of disability research, also encompasses more recent research into obesity for this population (Froehlich-Grobe & Lollar, 2011), including analyses of the disparity in obesity prevalence based on disability status (Froehlich-Grobe, Lee, & Washburn, 2013) and piloting an evidence-based intervention adapted for individuals with mobility impairment (Betts & Froehlich-Grobe, 2017).   
  
B. Positions and Honors   
1993-1994 Research Assistant, National Center for Medical Rehabilitation Research, NICHD, NIH, Bethesda, MD   
1995-1996 Graduate Teaching Assistant, Dept of Human Development and Family Life, University of Kansas, Lawrence, KS   
1994-1997 Graduate Research Assistant, Research and Training Center on Independent Living, Schiefelbusch Life-Span Institute, University of Kansas, Lawrence, KS   
1997-2001 Project Coordinator, Research and Training Center on Independent Living, Schiefelbusch Life-Span Institute, University of Kansas, Lawrence, KS   
1999-2001 Clinical Instructor, Occupational Therapy Education Dept, University of Kansas Medical Center, Kansas City, KS   
2001-2005 Assistant Professor, Occupational Therapy Education Dept, University of Kansas Medical Center, Kansas City, KS   
2006-2009 Assistant Research Professor, Schiefelbusch Life-Span Institute, University of Kansas, KS   
2009-2010 Associate Research Professor, Schiefelbusch Life-Span Institute, University of Kansas, KS   
2010-2016 Associate Professor, Division of Health Promotion and Behavioral Sciences (HPBS), University of Texas School of Public Health, Dallas Regional Campus, Dallas, TX   
2016- Associate Director of Research, Baylor Institute for Rehabilitation, Dallas, TX   
2016- Adjunct Faculty, HPBS, University of Texas School of Public Health   
Other Experience and Professional Memberships   
1994- Member, American Public Health Association (APHA)   
1994- Member, Society of Community Psychologists   
1999-2002 Member, Association of Teachers of Preventive Medicine   
2002- Member, Society of Behavioral Medicine   
2004-2007 Treasurer, DisAbility Forum Special Interest Group, American Public Health Association   
2010- Member, Member of the Board of Directors of REACH Independent Living Center, Dallas, TX.   
2013- Editorial Board, Disability and Health Journal   
Honors   
2009 Honorable mention for poster, Obesity among a diverse, yet invisible population: Wheelchair users presented to the inaugural conference of the Texas Obesity Research Center in Houston, TX.   
  
C. Contribution to Science   
Publications with \*\*\* are completed with Baylor Team Members   
  
1. Dr. Froehlich-Grobe’s research program has predominantly focused on (1) examining personal and environmental barriers facing people with disabilities from engaging in healthy behaviors and (2) developing and testing theory-based interventions to promote physical activity, exercise, and healthy diet and weight. Dr. Froehlich-Grobe’s initial intervention work addressed promoting physical activity, but in recent years she has expanded her research program to address how the growing obesity epidemic is affecting individuals who live with disabilities. While the nation has focused on addressing the troubling trend of raising rates of obesity and obesity-related chronic conditions, Dr. Froehlich-Grobe has been leading efforts to examine how Americans living with disabilities are affected. She has written a conceptual paper addressing this neglected, yet important area. Her concern emerged, in part from observing differences between self-reported versus measured height and weight among a regional of sample wheelchair users. These findings propelled her to examine national data that used measured versus self-reported height and weight to examine obesity prevalence among a representative national sample of those with disability. She and colleagues published the first ever national study that analyzed prevalence of obesity and obesity-related chronic conditions, comparing Americans with disabilities to those without disability based on data collected from the National Health and Nutrition Examination Survey. Prevalence of obesity and obesity-related chronic conditions was significantly higher for those living with disabilities than those without. These findings subsequently launched her into modifying an existing evidence-based weight-loss program, the Group Lifestyle Balance (GLB) Program, which is a direct adaptation of the Diabetes Prevention Program to address the unique needs of people living with mobility impairment. Her initial pilot study demonstrated promise in using this approach, as a the pilot study results indicate it was a feasible approach that yielded 7.4% weight loss over 20 weeks for a sample of individuals with mobility impairment. She is currently leading a CDC-funded RCT in which they are testing the effectiveness of having adapted an existing evidence-based approach for weight loss, the Group Lifestyle Balance (GLB) to be appropriate for a mobility-impaired sample (GLB AIM, adapted for impaired mobility), including those with SCI to promote weight loss for people living with impaired mobility.   
  
a. Froehlich-Grobe, K & Lollar, D. (2011). Obesity disparity in disability: Time to act. American Journal of Preventive Medicine, 41(5), 541-545. doi:10.1016/j.amepre.2011.07.015.   
b. Froehlich-Grobe, K., Nary, D.E., VanSciver, A., Washburn, R., & Aaronson, L. (2012). Truth be told: Evidence of wheelchair users accuracy in reporting their height and weight. Archives of Physical Medicine and Rehabilitation, 93(11), 2055-2061. doi: 10.1016/j.apmr.2012.05.005   
c. Froehlich-Grobe, K., Washburn, R., & Lee, J. (2013). Disparities in obesity and related conditions among Americans with disabilities. American Journal of Preventive Medicine, 45(1), 83-90.   
d. Betts, A. & Froehlich-Grobe, K. (in press). Accessible weight loss: Adapting a lifestyle intervention for adults with impaired mobility. Disability and Health Journal 19(1), 139-144, DOI:10.1016/j.dhjo.2016.06.004.   
  
2. Dr. Froehlich-Grobe’s initial research in developing behavioral interventions to promote health among people living with disabilities focused on physical activity. With the 1996 release of the Surgeon General’s Report on Physical Activity and Health, which reported on the substantial health benefits of moderate-intensity physical activity and recommended new guidelines for all Americans, Dr. Froehlich-Grobe recognized that these guidelines (lower intensity, with activity accumulated over multiple, shorter activity bouts) were particularly relevant to people with disabilities. The evidence base supporting these parameters made physical activity and its associated health benefits more achievable for individuals living with disabilities. Dr. Froehlich-Grobe was among the first researchers to examine perceived and environmental barriers to physical activity for those with disabilities, and among the first to develop and test interventions to promote physical activity and dietary interventions for those with impaired mobility. Relatedly, she has examined compliance with the ADA in various community settings, including polling stations and public housing. She has recently explored additional health issues facing different groups with disabilities. Specifically, she and colleagues have published work that examined health disparities between those with and without disability using data from the Behavioral Risk Factor Surveillance System related to health behaviors and self-rated health, use of cancer screening services among Montana women with and without disabilities, and disparities among incarcerated adults with and without disabilities related to early childhood experiences and use of educational and vocational services within prison.   
  
a. Nary, D.E., Froehlich, A.K., & White, G.W. (2000). Accessibility of fitness facilities for persons with physical disabilities using wheelchairs. Topics in Spinal Cord Injury Rehabilitation, 6, 87-98.   
b. Hildenbrand, W. & Froehlich, A.K. (2002). Promoting health: Historical roots, renewed vision. OT Practice, 7, 10-15.   
c. Froehlich, A.K., Nary, D.E., & White, G.W. (2002). Identifying barriers to participation in physical activity for women with disabilities. SCI Psychosocial Process, 15, 21-28.   
d. Froehlich-Grobe, K., & White, G.W. (2004). Promoting physical activity among women with mobility impairments: A randomized controlled trial to assess a home- and community-based intervention. Archives of Physical Medicine and Rehabilitation, 85, 640-648. PMID: 15083442.   
e. Pohl, P., Froehlich-Grobe, K., McKiernan, B., Vacek, K., Donnelly, M., & Gaughan, J. G. (2006). Access to polling places in the 2004 Presidential Election: the experience of one metropolitan Midwestern city. American Journal of Occupational Therapy, 60(4), 404-408. PMID: 16915870   
f. Froehlich-Grobe, K., Regan, G., Booth, K., Reese-Smith, J., and Lee, R. E. (2008). Physical access in urban public housing authorities. Disability and Health Journal, 1, 25-29. doi:10.1016/j.dhjo.2007.11.003   
g. Froehlich-Grobe, K., Figoni, S.F., Thompson, C., & White, G.W. (2008). Exploring the health of women with mobility impairments. Women’s Health, 48(1), 21-41.   
h. Froehlich-Grobe, K., Aaronson, L., Washburn, R., Little, T., Lee, J., Nary, D.E., VanSciver, A., Nesbitt, J., & Norman, S.E. (2012). An exercise trial for wheelchair users: Project Workout on Wheels. Contemporary Clinical Trials, 33, 351-363. 10.1016/j.cct.2011.10.014 PMC3148840   
i. Froehlich-Grobe, K, Lee, J, Aaronson, L, Nary, D.E., Washburn, R.A. Little, T. (2014). Exercise for Everyone: A randomized controlled trial of Project Workout On Wheels (WOW) in promoting exercise among wheelchair users. Archives of Physical Medicine and Rehabilitation, 95,20-28. 10.1016/j.apmr.2013.07.006   
j. Prizer, L.P., Gay, J.L., Gerst-Emerson, K. & Froehlich-Grobe, K. (2016). The role of age in moderating the association between disability and light- intensity physical activity. American Journal of Health Promotion, 30(3), e101-e109. http://dx.doi.org/10.4278/ajhp.140225-QUAN-85   
k. Froehlich-Grobe, K., Shropshire, W.C., Zimmerman, H., VanBrunt, J., & Betts, A. (2016). Reach of the Montana Cancer Control Program to women with disabilities. Journal of Community Health, 41(3), 650-657. DOI: 10.1007/s10900-015-0141-y   
l. Froehlich-Grobe, K., Jones, D., Businelle, M., Kendzor, D., & Balasubramanian, B. (in press). The relative impacts of disability and chronic conditions on health and health behaviors. Disability and Health Journal. doi: 10.1016/j.dhjo.2016.04.007   
3. The disability and rehabilitation fields were undergoing a major conceptual shift over the time when Dr. Froehlich-Grobe received her doctoral training. In the late 1980s, concurrent with the grassroots movement that successfully led to Congress passing federal legislation (Americans with Disabilities Act of 1990) to protect the civil rights of Americans with disabilities, clinicians and investigators began to view disability within a social rather than medical model. This perspective provided the field a new lens from which to see people with disabilities as being able to achieve health. This new paradigm thus offered a platform for Dr. Froehlich-Grobe to study and intervene upon personal and environmental factors that could facilitate the ability of people with disabilities having the ability to engage in healthy behaviors, including physical activity and exercise. Yet, as Dr. Froehlich-Grobe began initiated research in this emerging research area she faced a lack of psychometrically sound instruments to measure health changes for people with disabilities. Thus, a portion of her research efforts have addressed developing new and assessing existing and well validated and widely distributed health measures (SF-36) for use among samples with mobility impairment related disability. She conducted a small pilot study that examined whether wording changes to the SF 36 that eliminated the potential confounds of walking ability with health, developed and conducted initial psychometric testing of a disability-specific measure of perceived stress, and has examined the best approach for measuring height among adults with mobility impairment who cannot stand.   
  
a. Figoni, S.F., Thompson, C.J. Froehlich, A.K., Nary, D.E., Marquis, J., & White, G.W. (2003). Preliminary validation of a mobility obstacle course for persons with mobility impairment. Clinical Kinesiology, 57(1), 7-14.   
b. Froehlich-Grobe, K., Andresen, E., Caburnay, C., & White, G. W. (2008). Measuring health-related quality of life for persons with physical disabilities: An enabled version of the Short-form 36 (SF-36E). Quality of Life Research, 17, 751-770. PMID: 18427950   
c. Froehlich-Grobe, K., Nary, D.E., VanSciver, A., Lee, J., & Little, T., (2011). Measuring height without a stadiometer: Empirical investigation of four height estimates among wheelchair users. American Journal of Physical Medicine and Rehabilitation, 90(8):658-666. PMCID: PMID: 21681063. doi: 10.1097/PHM.0b013e31821f6eb2   
d. Rhode, P., Froehlich-Grobe, K., Hockemeyer, J., Carlson, J., & Lee, J. (2012). Assessing stress among individuals with physical limitations: Developing and Piloting the Disability Related Stress. Disability and Health Journal, 5(3), 168-176.   
4. In line with work in developing behaviorally based approaches to promote health, Dr. Froehlich-Grobe has collaborated with Dr. Driver to conduct a scoping review of self-management interventions in treating secondary conditions among people with mobility impairments. This project has led to writing 3 separate literature reviews that address the effectiveness of self-management interventions applied to treating pain, depression, and fatigue. The findings suggest that self-management interventions have successfully been used to reduce pain, depression, and fatigue even across various delivery platforms (web, group-based, one on one). Notably, studies mostly enrolled samples with chronic back or musculoskeletal pain or arthritis.   
a. Froehlich-Grobe, K., Driver, S., Sanches, K. (2016). Self-management interventions to prevent the secondary condition of pain in people with disability due to mobility limitations. Rehabilitation Process and Outcome, 5, 19-42.   
b. Driver, S., Froehlich-Grobe, K., Sanches, K. (2016). Self-management interventions to prevent depression in people with mobility limitations. Submitted to Rehabilitation Process and Outcome.   
c. Sanches, K., Froehlich-Grobe, K., Driver, S. (2016). Self-management interventions to prevent the secondary condition of fatigue in people with disability due to mobility limitations. (2016). Submitted to Rehabilitation Process and Outcome.   
  
D. Research Support   
Ongoing Research Support   
  
90IF0106-01-00 Froehlich-Grobe (PI) 09/01/15-08/31/18   
Driver, S. (Co-Investigator)   
Shegog, R. (Co-Investigator)   
National Institute on Disability Independent Living and Rehabilitation Research, Administration for Community Living   
Project WOWii: Developing & testing a web-based intervention to promote exercise among those with SCI   
This study examines the effectiveness of an online physical activity intervention for individuals with SCI.   
  
5U01DD001007 Froehlich-Grobe (PI) 09/30/2014-09/29/2017   
Driver, S. (Co-Investigator)   
Kramer, M.K. (Co-Investigator)   
Translating the GLB for people with mobility impairment   
National Center on Birth Defects and Developmental Disabilities, Centers for Disease Control and Prevention   
The study purpose is to 1) adapt this evidence-based behavioral intervention for a mobility impaired sample and 2) evaluate the intervention for usability, feasibility, and effectiveness. The proposed study builds upon existing clinical interventions that we previously conducted for those with mobility impairments and includes community based participatory research to guide adapting the Group Lifestyle Balance program.   
  
Froehlich-Grobe (PI) 09/01/2013-08/30/2016   
Kohl, H. (Co-Investigator)   
UT School of Public Health   
Front of the Envelope Award   
Spinal Cord Injury as a Potential Human Model for Studying Sedentary Behavior on Metabolic Abnormalities   
This study examines the feasibility of using people with SCI to study potential mechanisms of metabolic abnormalities associated with sedentary behavior and will assess whether effects observed in rodent models from inactivity in weight bearing skeletal muscles can be observed in people with SCI. Thirty wheelchair users will be divided into 3 groups to examine whether lipoprotein lipase levels differ in the skeletal muscle based on sedentary status.   
  
Completed Research Support   
  
Froehlich-Grobe (PI) 09/01/2013-08/30/2014   
UT School of Public Health   
New faculty award   
Feasibility of delivering a modified DPP weight loss program to a mobility-impaired sample   
This pilot study examined the usability, feasibility, and effectiveness of adapting an existing evidence-based weight loss program, the Group Lifestyle Balance to be appropriate for people with mobility impairment   
  
R01 HD04628-05 Froehlich-Grobe (PI) 01/01/2006-08/30/2011   
National Center on Medical Rehabilitation Research/NICHD/NIH   
A Randomized Exercise Trial for Wheelchair Users   
This RCT tested the effectiveness of a behavioral intervention to promote physical activity adoption and maintenance among manual wheelchair users. One-hundred twenty-eight manual wheelchair users were randomly assigned to an intensive 6-month, home-based intervention or a minimal-contact control group and then followed for another 6 months. The study assessed: (1) the effectiveness of the intervention for promoting physical activity adoption and maintenance, and (2) the factors that influenced the intervention’s effectiveness.   
  
R01 HD04628-05S1 Froehlich-Grobe (PI) 01/2006-08/30/2011   
National Center on Medical Rehabilitation Research/NICHD/NIH   
A Randomized Exercise Trial for Wheelchair Users – Disability Supplement   
These supplemental funds supported pre and postdoctoral training in health research of an individual with a disability.

**85**

**Combined Regenerative and Rehabilitative Approach to Promote Autonomic Recovery after Spinal Cord Injury**

Thursday, May 03, 2018 08:00 AM - 09:30 AM

***Rahul Sachdeva, PhD***  
University of British Columbia

**CV:**  
The overarching objective of my research is to investigate cellular and molecular challenges in neuronal regeneration and plasticity after spinal cord injury in order to develop clinically relevant treatment strategies for functional recovery after spinal cord injury. I utilize numerous physiological, neuroanatomical and molecular techniques in animal models to delve into mechanisms at the cellular/molecular level and to functionally validate the treatment strategies at the organism level.   
Research Interests: I am specifically interested in the therapeutic targeting of multiple mechanisms that lead to the development of Autonomic Dysreflexia after spinal cord injury, a condition characterized by immense life-threatening surges in blood pressure triggered by routine activities such as bladder distension or bowel routine. I seek to achieve this using a multi-pronged approach that involves (1) providing a growth promoting substrate (peripheral nerve graft), (2) creating a permissive central nervous system environment (Chondroitinase treatment) and, (3) activating spinal circuits (rhythmic sensory stimulation with exercise).   
Research Experience: My research experience spans across various disciplines ranging from cellular and molecular biology to neuroanatomy and physiology. Working with Dr. John Houle at Drexel University College of Medicine (Philadelphia, 2010-15), I have been extensively trained in the field of spinal cord injury focusing on the implementation of tissue transplantation and physical exercise to improve regeneration from the spinal cord after injury. I am also the first to demonstrate the potential for local protein synthesis in adult spinal cord axons regenerating in vivo- a novel therapeutic target. My present postdoctoral tenure with Dr. Krassioukov is dedicated to employ my novel findings to improve cardiovascular function after spinal cord injury, which is an important yet poorly understood condition that is among the highest priorities for recovery.   
Research Specialization Keywords: Autonomic dysfunction, Blood pressure telemetry, Electrophysiology, Fluorescent in situ hybridization, Immuno-histochemical techniques, Molecular biology techniques, Neuroanatomical tract tracing, Post-injury exercise, Spinal cord injury, Tissue transplantation   
  
Recognitions   
2017/06: Best Postdoctoral Fellow Poster. International Collaboration on Repair Discoveries. Annual Trainee Symposium   
2017/05: Best Postdoctoral Fellow Poster. G F Strong Rehabilitation Centre. Seventh Annual G.F. Strong Rehabilitation Centre Rehabilitation Research Day   
2017/04: Best Oral Presentation. Experimental Biology Annual Conference   
2017/02: 2nd Best Oral Presentation. International Collaboration on Repair Discoveries. 4th International Autonomic Symposium   
2016/10: ICORD Trainee travel award. International Collaboration on Repair Discoveries   
2013/12: ISNR student travel award. 15th International Symposium on Neural Regeneration   
2013/03: GSA travel award. Drexel University graduate student association   
2010/02: Shivshankar Bhau Patil, Shegaon, Medal (University Gold medal). Dr. D. Y. Patil University   
2009/11 - 2010/4: Trainee Scholarship. Biotech Consortium India Limited, Funded by Govt. of India.   
2008/12: Merit Scholarship. Pd. Dr. D. Y. Patil University. Reward for Academic Excellence   
2008/05: Merit Scholarship. Pd. Dr. D. Y. Patil University. Reward for Academic Excellence   
2007/12: Merit Scholarship. Pd. Dr. D. Y. Patil University. Reward for Academic Excellence   
2007/05: Merit Scholarship. Pd. Dr. D. Y. Patil University. Reward for Academic Excellence   
  
Contributions to science:   
1. Kalinski AL\*, Sachdeva R\*, Gomes C, Lee SJ, Shah Z\*, Houle JD, Twiss JL \* equal contribution. (2015). mRNAs and Protein Synthetic Machinery Localize into Regenerating Spinal Cord Axons When They Are Provided a Substrate That Supports Growth. The Journal of Neuroscience. 35(28): 10357–10370.   
(Impact factor: 6.34)   
-- Citations = 23   
-- Featured as the Journal Cover.   
-- Highlighted and recommended by Faculty of 1000 prime.   
-- Editorial mention by The Neuroscientist   
  
2. Sachdeva R, Farrell K, McMullen MK, Twiss JL, Houlé JD. (2016). Dynamic Changes in Local Protein Synthetic Machinery in Regenerating Central Nervous System Axons after Spinal Cord Injury. Neural Plasticity. 2016: 4087254; 1-11.   
(Impact factor: 3.6)   
-- Citations = 6   
  
3. Twiss JL, Kalinski AL, Sachdeva R, Houle JD. (2016). Intra-axonal protein synthesis – a new target for neural repair?. Neural Regeneration Research. 11(9): 1365-1367.   
(Impact factor: 0.97)   
-- Citations = 1   
  
4. Sachdeva R, Theisen CC, Ninan V, Twiss JL, Houlé JD. (2016). Exercise dependent increase in axon regeneration into peripheral nerve grafts by propriospinal but not sensory neurons after spinal cord injury is associated with modulation of regeneration-associated genes. Experimental Neurology. 276: 72-82.   
(Impact factor: 4.7)   
-- Citations = 5   
  
5. Theisen C, Sachdeva R, Austin S, Kulich D, Kranz V, Houle JD. (2016). Exercise and peripheral nerve grafts as a strategy to promote regeneration after acute or chronic spinal cord injury. Journal of   
Neurotrauma. 34(10):1909-1914   
(Impact factor: 4.3)   
  
6. Phillips A, Matin N, Squair J, Monga A, Zheng M, Sachdeva R, Yung A, Hocaloski S, Elliott S, Kozlowski P, Dorrance A, Laher I, Ainslie, Krassioukov A. Transient hypertension after spinal cord injury leads to cerebrovascular endothelial dysfunction and fibrosis. Journal of Neurotrauma. Accepted.   
(Impact factor: 4.3)   
  
Presentations:   
1. (2017). A Triple Combination Approach Involving Nerve Transplantation, Glial Scar Digestion and Passive Exercise Promotes Cardiovascular Recovery after Spinal Cord Injury. BC Regenerative Medicine Symposium, Vancouver, Canada   
  
2. (2017). A Triple Combination Approach Involving Nerve Transplantation, Glial Scar Digestion and Passive Exercise Promotes Cardiovascular Recovery after Spinal Cord Injury. Experimental Biology 2017, Chicago, United States   
  
3. (2017). Combined Regenerative and Rehabilitative Strategy for Cardiovascular Recovery after Spinal Cord Injury. The 4th International Autonomic Symposium, Vancouver, Canada   
  
4. (2017). Combined Regenerative and Rehabilitative Strategy for Cardiovascular Recovery after Spinal Cord Injury. UBC Postdoc Slam, Vancouver, Canada   
  
Research Support:   
2017/8 - 2019/7: Principal Applicant: Regenerative Strategies for Autonomic Recovery After Spinal Cord Injury. Craig H. Neilsen Foundation. Total Funding - 150,000 (United States dollar).   
  
2016/10 - 2017/10: Co-applicant: ICORD Seed Grant- Combined neuroprosthetic and neuroprotective approach to promote restoration and recovery of autonomic circuitry.   
International Collaboration on Repair Discoveries. Total Funding - 20,000 (Canadian dollar).   
  
2009/11 - 2010/4: Principal Applicant: Trainee scholarship, Dept. of Biotechnology, Govt. of India. Total Funding - 39,000 (Indian rupee).

***Arjun Sangha, BS***  
University of British Columbia

*(no CV uploaded)*

***Ariana Auyeung,***   
University of British Columbia

*(no CV uploaded)*

***Gillian Hutton,***   
University of British Columbia

*(no CV uploaded)*

***Rayshad Gopaul,***   
University of British Columbia

*(no CV uploaded)*

***Matt Ramer, PhD***  
University of British Columbia

*(no CV uploaded)*

***Andrei Krassioukov,***   
University of British Columbia

*(no CV uploaded)*

**86**

**Opioid utilization in persons with and without spinal cord injury: A propensity-score matched comparison of opioid users in a privately insured population**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Brittany Hand, PhD, OTR/L***  
Medical University of South Carolina

**CV:**  
BRITTANY N. HAND, PhD, MOT, OTR/L   
  
EDUCATION   
2016 Doctor of Philosophy in Health and Rehabilitation Sciences, The Ohio State University; Columbus, OH   
2013 Master of Occupational Therapy, The Ohio State University; Columbus, OH   
2011 Bachelor of Science in Biology, The Ohio State University; Columbus, OH   
  
APPOINTMENTS   
Academic Appointments   
2017 – Present Postdoctoral Scholar, Division of Occupational Therapy, Medical University of South Carolina; Charleston, SC   
  
2011 – 2016 Graduate Research Associate, School of Health and Rehabilitation Science, The Ohio   
State University; Columbus, OH   
2013 – 2014 College Fellow, School of Health and Rehabilitation Science, The Ohio State University;   
Columbus, OH   
  
Clinical Appointments   
6/2017 – PRN Occupational Therapist, Heartland of West Ashley; Charleston, SC   
6/2016 – 12/2017 PRN Occupational Therapist, Nationwide Children’s Hospital; Columbus, OH   
8/2015 – 12/2016 Research Occupational Therapist, Multi-Site RCT of Pediatric Constraint-Induced Movement   
Therapy, The Ohio State University; Columbus, OH   
2/2014 – 12/2016 Pediatric Occupational Therapist, Columbus Therapy Associates; Columbus, OH   
  
HONORS AND AWARDS   
2016 Travel Award, $500, American Occupational Therapy Association.   
2014 First Place, Stroke ISIG Poster Competition, American Congress of Rehabilitation Medicine.   
2011 Suma Cum Laude, College of Arts and Sciences, The Ohio State University.   
2008 Outstanding Freshman in Biological Sciences, College of Arts and Sciences, Capital University.   
  
GRANTS   
Title: Application of state-of-the-art measurement in monitoring long-term outcomes of spinal cord injury in South Carolina   
Agency: South Carolina Spinal Cord Injury Research Fund   
Date: 02/2017-02/2018   
Role: Postdoctoral Scholar (PI: Craig A. Velozo, PhD, OTR/L, FAOTA)   
  
Title: Caregiver burden, child participation, and sensory subtypes in children with autism   
Agency: M. Rosita Schiller Research Award, The Ohio State University   
Date: 1/2016-12/2016   
Role: Principal Investigator   
  
Title: Caregiver burden, child participation, and sensory subtypes in children with autism   
Agency: Alumni Grant for Graduate Research and Scholarship, The Ohio State University   
Date: 1/2015-12/2016   
Role: Principal Investigator   
  
Title: Latent constructs underlying sensory subtypes in children with autism   
Agency: Research Higher Degree Student Exchange, University of Newcastle Australia   
Date: 6/2015-7/2015   
Role: Mentee (PI: Alison E. Lane, PhD, OTR)   
  
PUBLICATIONS   
Peer-reviewed Articles   
Hand, B.N., Velozo, C.A., & Krause, J.S. (in press). Rasch measurement properties of the Pain Medication Questionnaire for persons with spinal cord injury. Spinal Cord.   
  
Hand, B.N., Dennis, S., & Lane, A.E. (in press). Latent constructs underlying sensory subtypes in children with autism: A preliminary study. Autism Research.   
  
Hand, B.N., Darragh, A.R., & Persch, A.C. (in press). A systematic review of the thoroughness and psychometrics of fidelity measures in occupational and physical therapy. American Journal of Occupational Therapy.   
  
Tanner, K., Hand, B.N., O’Toole, G., & Lane, A. E. (2015). Effectiveness of interventions to improve social participation, play, leisure, and restricted and repetitive behaviors in people with autism spectrum disorder: A systematic review. American Journal of Occupational Therapy, 69, 6905180010.   
http://dx.doi.org/10.5014/ajot.2015.017806.   
  
Hand, B., Page, S. J., & White, S. (2014). Stroke survivors scoring zero on the NIH Stroke Scale still exhibit significant motor Impairment and functional limitation. Stroke Research and Treatment, 2014.   
  
Published Abstracts   
Basobas, B., Hand, B., Peters, H., & Page, S. (2017). NIHSS lacks validity and sensitivity in postacute stroke. Stroke, 48(A 102).   
  
Hand, B.N., & De Boeck, P. (2016). Evaluation of item fit to item response theory models for patient reported outcome measures: A systematic review. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500064p1-7011500064p1.   
  
Hand, B., Darragh, A. R., & Persch, A. C. (2016). Intervention fidelity measures in rehabilitation: A systematic review. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500024p1-7011500024p1.   
  
Hand, B., Lane, A. E., Marco, E., & De Boeck, P. (2016). Discriminating sensory subtypes: A multi-group, multidimensional item response theory analysis. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500019p1-7011500019p1.   
  
Hand, B., Dennis, S., Marco, E., & Lane, A. E. (2016). Latent constructs underlying sensory subtypes in autism: An independent-component analysis. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500035p1-7011500035p1.   
  
Hand, B., Page, S., White, S. (2014). Poster 59. Correlation of National Institute of Health Stroke Scale scores and upper extremity outcomes. Archives of Physical Medicine and Rehabilitation, 95 (10), e27-28.   
  
PRESENTATIONS   
Refereed Presentations   
Hand, B.N., Darragh, A.R., Lane, A.E. (2017, June). Activity participation varies by sensory subtype in children with autism, Paper presented at the Occupational Therapy Summit of Scholars, Boston, MA.   
  
Hand, B.N., Darragh, A.R., De Boeck, P., Lane, A.E. (2017, May). Caregiver strain varies by sensory subtypes of children with autism, Poster presented at the International Meeting for Autism Research, San Francisco, CA.   
  
Velozo, C.A., Krause, J., Presented by: Hand, B.N. (2017, April). Rasch-based activity of daily living measures for SCI longitudinal studies, Paper presented at the American Spinal Injury Association conference, Albuquerque, NM.   
  
Hand, B.N., Dennis, S., Marco, E., Lane, A.E. (2016, May). Latent constructs underlying sensory subtypes in autism: An independent component analysis, Paper presented at the Occupational Therapy Summit of Scholars, Pittsburg, PA.   
  
Hand, B.N., Dennis, S., Marco, E., Lane, A.E. (2016, May). Latent constructs underlying sensory subtypes in autism: An independent component analysis, Poster presented at the International Meeting for Autism Research, Baltimore, MD.   
  
Hand, B.N., De Boeck, P. (2016, April). Evaluation of item fit in Rehabilitation Outcomes Research, Paper presented at the International Objective Measurement Workshop, Washington D.C.   
  
Hand, B.N., Lane, A.E., Marco, E., De Boeck, P. (2016, February). Toward development of a short form for sensory subtyping: An item response theory analysis, Oral presentation, Hayes Graduate Research Forum, Columbus, OH.   
  
Hand, B.N., Darragh, A., Persch, A., (2015, September). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Ohio Occupational Therapy Association annual conference, Columbus, OH.   
  
Hand, B.N., Darragh, A., Persch, A., (2015, April). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Occupational Therapy Summit of Scholars, Los Angeles, CA.   
  
Lane, A.E., Eldridge, J., Hand, B.N., Harpster, K., & Dennis, S. (2015, May). Auditory event-related potentials as a function of clinical sensory subtype in Autism Spectrum Disorder. Poster presentation at International Meeting for Autism Research (IMFAR), Salt Lake City, UT.   
  
Hand, B.N., Darragh A., Persch, A., (2015, May). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Ohio State University Wexner Medical Center Trainee Research Day, Columbus, OH.   
  
Hand, B.N., Page, S., White, S., (2014, May). Correlation of National Institute of Health Stroke Scale scores and upper extremity outcomes, Poster presented at the Occupational Therapy Summit of Scholars, Philadelphia, PA.   
  
Lane, A.E., Eldridge, J., Hand, B.N., Harpster, K., Dennis, S., (2014, May). Neural correlates of sensory subtypes in Autism Spectrum Disorder, Paper presented at the Occupational Therapy Summit of Scholars, Philadelphia, PA.   
  
Hand, B.N., Lane A.E., Heathcock, J., (2014, April). Sensory features in young infants at high and low risk for autism, Poster presented at the American Occupational Therapy Association Conference, Baltimore, MD.   
  
Hand, B.N., Lane A.E., Heathcock, J., (2013, May). Sensory features in young infants at high and low risk for autism, Poster presented at the International Meeting for Autism Research, San Sebastian, Spain.   
  
Hand, BN.., Page, S., White, S., (2013, April). Correlation of National Institute of Health Stroke Scale Scores and upper extremity outcomes, Poster presented at the Hite Symposium, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2012, November). Early sensory signs of autism: A video analysis of infants aged 2-6 months, Poster presented at the Ohio Center on Autism and Low Incidence Conference, Columbus, OH.   
  
Lane, A.E., Dennis, S., Shahin, T., Whitelaw, G., Witwer, A., Hand, B.N., (2012, May). Clinical and neurophysiologic identification of sensory dysfunction in children with autism, Poster presented at the Center for Clinical and Translational Science Scientific Meeting, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2011, May). Early signs of autism: A retrospective video analysis of mouthing during infancy, Poster presented at the Denman Undergraduate Research Forum at The Ohio State University, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2011, May). Early signs of autism: A retrospective video analysis of mouthing during infancy, Poster presented at the Multiple Perspectives Conference on Disability, Access and Inclusion, Columbus, OH.   
  
Invited Presentations   
Hand, B.N. (2016, May), Featured student speaker, School of Health and Rehabilitation Sciences 50th Anniversary. The Ohio State University. Columbus Ohio.   
  
Hand, B.N. (2016, March), Featured student speaker, Annual Scholarship Reception for the College of Medicine and School of Health and Rehabilitation Sciences. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Weaver, L. (2016, March), Biomechanics and motor learning, Scholarly presentation to the Occupational Therapy with School Age and Adolescents class, School of Health and Rehabilitation Science. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Persch, A. (2016, February), Best practices in pediatric constraint-induced movement therapy, Clinical in-service presented at Madison County Board of Developmental Disabilities. London, OH.   
  
Hand, B.N., Persch, A. (2016, January), Best practices in pediatric constraint-induced movement therapy, Clinical in-service presented at Licking County Board of Developmental Disabilities. Newark, OH.   
  
Hand, B.N., Montgomery, P., Sager, B. (2015, October). Special education services in the school, Clinical in-service presented at Focus Learning Academy of Northern Columbus. Columbus, OH.   
  
Hand, B.N. (2015, January). Pediatric physical disabilities, Scholarly presentation to the Occupational Therapy with School Age and Adolescents class, School of Health and Rehabilitation Science. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Weaver, L. (2014, December). Motor skills: Development, evaluation and treatment, Presented at The Ohio State University. Columbus, OH.   
  
Hand, B, Freyman, J., Turnwald, P., Wayne, S., Lavalley, R., Kurz, B. (2013, November). Fieldwork round table panelist, Ohio Occupational Therapy Association Annual Conference and Expo. Columbus, OH.   
  
Hand, B.N., Clegg, A., Cleary, D. (2012). The role of occupational therapy in the schools, Scholarly presentation. The Ohio State University. Columbus, OH.   
  
UNIVERSITY TEACHING   
2017 Teaching Assistant, Introduction and Application of Rasch Measurement (HRS740), Medical University of   
South Carolina.   
2014 Co-Instructor, Evidence Based Practice II (AM7900), The Ohio State University.   
  
PROFESSIONAL MEMBERSHIP   
2017 – Present Member, American Congress of Rehabilitation Medicine   
2017 – Present Member, American Spinal Cord Injury Association   
2015 – 2016 Member, Ohio Occupational Therapy Association   
2011 – 2016 Member, American Occupational Therapy Association   
  
SERVICE   
2017 Membership Development Chair, Postdoctoral Association, Medical University of South   
Carolina; Charleston, SC   
2016 Judge, Denman Undergraduate Research Forum, The Ohio State University; Columbus, OH   
2015 Judge, Denman Undergraduate Research Forum, The Ohio State University; Columbus, OH   
2013 Co-Chair of Confirmations and Banking, Health and Rehabilitation Science Job Fair, The Ohio   
State University; Columbus, OH   
Editing and Reviewing Service   
2016 Manuscript reviewer for American Journal of Occupational Therapy   
  
CERTIFICATION AND LICENSURE   
2016 – Present South Carolina Board of Occupational Therapy Examiners (License #: 4872)   
2014 – Present National Board for Certification in Occupational Therapy, Inc. (Registration #: 321752)   
2014 – 2017 Ohio Occupational Therapy, Physical Therapy, & Athletic Trainers Board   
(License #: 008539)

***James Krause, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

***Kit Simpson, DrPH***  
Medical University of South Carolina

*(no CV uploaded)*

**87**

**Incidence of adverse drug events with polypharmacy differs between persons with and without spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Brittany Hand, PhD, OTR/L***  
Medical University of South Carolina

**CV:**  
BRITTANY N. HAND, PhD, MOT, OTR/L   
  
EDUCATION   
2016 Doctor of Philosophy in Health and Rehabilitation Sciences, The Ohio State University; Columbus, OH   
2013 Master of Occupational Therapy, The Ohio State University; Columbus, OH   
2011 Bachelor of Science in Biology, The Ohio State University; Columbus, OH   
  
APPOINTMENTS   
Academic Appointments   
2017 – Present Postdoctoral Scholar, Division of Occupational Therapy, Medical University of South Carolina; Charleston, SC   
2011 – 2016 Graduate Research Associate, School of Health and Rehabilitation Science, The Ohio   
State University; Columbus, OH   
2013 – 2014 College Fellow, School of Health and Rehabilitation Science, The Ohio State University;   
Columbus, OH   
  
Clinical Appointments   
6/2017 – PRN Occupational Therapist, Heartland of West Ashley; Charleston, SC   
6/2016 – 12/2017 PRN Occupational Therapist, Nationwide Children’s Hospital; Columbus, OH   
8/2015 – 12/2016 Research Occupational Therapist, Multi-Site RCT of Pediatric Constraint-Induced Movement   
Therapy, The Ohio State University; Columbus, OH   
2/2014 – 12/2016 Pediatric Occupational Therapist, Columbus Therapy Associates; Columbus, OH   
  
HONORS AND AWARDS   
2016 Travel Award, $500, American Occupational Therapy Association.   
2014 First Place, Stroke ISIG Poster Competition, American Congress of Rehabilitation Medicine.   
2011 Suma Cum Laude, College of Arts and Sciences, The Ohio State University.   
2008 Outstanding Freshman in Biological Sciences, College of Arts and Sciences, Capital University.   
  
GRANTS   
Title: Application of state-of-the-art measurement in monitoring long-term outcomes of spinal cord injury in South Carolina   
Agency: South Carolina Spinal Cord Injury Research Fund   
Date: 02/2017-02/2018   
Role: Postdoctoral Scholar (PI: Craig A. Velozo, PhD, OTR/L, FAOTA)   
  
Title: Caregiver burden, child participation, and sensory subtypes in children with autism   
Agency: M. Rosita Schiller Research Award, The Ohio State University   
Date: 1/2016-12/2016   
Role: Principal Investigator   
  
Title: Caregiver burden, child participation, and sensory subtypes in children with autism   
Agency: Alumni Grant for Graduate Research and Scholarship, The Ohio State University   
Date: 1/2015-12/2016   
Role: Principal Investigator   
  
Title: Latent constructs underlying sensory subtypes in children with autism   
Agency: Research Higher Degree Student Exchange, University of Newcastle Australia   
Date: 6/2015-7/2015   
Role: Mentee (PI: Alison E. Lane, PhD, OTR)   
  
PUBLICATIONS   
Peer-reviewed Articles   
Hand, B.N., Velozo, C.A., & Krause, J.S. (in press). Rasch measurement properties of the Pain Medication Questionnaire for persons with spinal cord injury. Spinal Cord.   
  
Hand, B.N., Dennis, S., & Lane, A.E. (in press). Latent constructs underlying sensory subtypes in children with autism: A preliminary study. Autism Research.   
  
Hand, B.N., Darragh, A.R., & Persch, A.C. (in press). A systematic review of the thoroughness and psychometrics of fidelity measures in occupational and physical therapy. American Journal of Occupational Therapy.   
  
Tanner, K., Hand, B.N., O’Toole, G., & Lane, A. E. (2015). Effectiveness of interventions to improve social participation, play, leisure, and restricted and repetitive behaviors in people with autism spectrum disorder: A systematic review. American Journal of Occupational Therapy, 69, 6905180010. http://dx.doi.org/10.5014/ajot.2015.017806.   
  
Hand, B., Page, S. J., & White, S. (2014). Stroke survivors scoring zero on the NIH Stroke Scale still exhibit significant motor Impairment and functional limitation. Stroke Research and Treatment, 2014.   
  
Published Abstracts   
Basobas, B., Hand, B., Peters, H., & Page, S. (2017). NIHSS lacks validity and sensitivity in postacute stroke. Stroke, 48(A 102).   
  
Hand, B.N., & De Boeck, P. (2016). Evaluation of item fit to item response theory models for patient reported outcome measures: A systematic review. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500064p1-7011500064p1.   
  
Hand, B., Darragh, A. R., & Persch, A. C. (2016). Intervention fidelity measures in rehabilitation: A systematic review. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500024p1-7011500024p1.   
  
Hand, B., Lane, A. E., Marco, E., & De Boeck, P. (2016). Discriminating sensory subtypes: A multi-group, multidimensional item response theory analysis. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500019p1-7011500019p1.   
  
Hand, B., Dennis, S., Marco, E., & Lane, A. E. (2016). Latent constructs underlying sensory subtypes in autism: An independent-component analysis. American Journal of Occupational Therapy, 70(4\_Supplement\_1), 7011500035p1-7011500035p1.   
  
Hand, B., Page, S., White, S. (2014). Poster 59. Correlation of National Institute of Health Stroke Scale scores and upper extremity outcomes. Archives of Physical Medicine and Rehabilitation, 95 (10), e27-28.   
  
PRESENTATIONS   
Refereed Presentations   
Hand, B.N., Darragh, A.R., Lane, A.E. (2017, June). Activity participation varies by sensory subtype in children with autism, Paper presented at the Occupational Therapy Summit of Scholars, Boston, MA.   
  
Hand, B.N., Darragh, A.R., De Boeck, P., Lane, A.E. (2017, May). Caregiver strain varies by sensory subtypes of children with autism, Poster presented at the International Meeting for Autism Research, San Francisco, CA.   
  
Velozo, C.A., Krause, J., Presented by: Hand, B.N. (2017, April). Rasch-based activity of daily living measures for SCI longitudinal studies, Paper presented at the American Spinal Injury Association conference, Albuquerque, NM.   
  
Hand, B.N., Dennis, S., Marco, E., Lane, A.E. (2016, May). Latent constructs underlying sensory subtypes in autism: An independent component analysis, Paper presented at the Occupational Therapy Summit of Scholars, Pittsburg, PA.   
  
Hand, B.N., Dennis, S., Marco, E., Lane, A.E. (2016, May). Latent constructs underlying sensory subtypes in autism: An independent component analysis, Poster presented at the International Meeting for Autism Research, Baltimore, MD.   
  
Hand, B.N., De Boeck, P. (2016, April). Evaluation of item fit in Rehabilitation Outcomes Research, Paper presented at the International Objective Measurement Workshop, Washington D.C.   
  
Hand, B.N., Lane, A.E., Marco, E., De Boeck, P. (2016, February). Toward development of a short form for sensory subtyping: An item response theory analysis, Oral presentation, Hayes Graduate Research Forum, Columbus, OH.   
  
Hand, B.N., Darragh, A., Persch, A., (2015, September). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Ohio Occupational Therapy Association annual conference, Columbus, OH.   
  
Hand, B.N., Darragh, A., Persch, A., (2015, April). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Occupational Therapy Summit of Scholars, Los Angeles, CA.   
  
Lane, A.E., Eldridge, J., Hand, B.N., Harpster, K., & Dennis, S. (2015, May). Auditory event-related potentials as a function of clinical sensory subtype in Autism Spectrum Disorder. Poster presentation at International Meeting for Autism Research (IMFAR), Salt Lake City, UT.   
  
Hand, B.N., Darragh A., Persch, A., (2015, May). Intervention fidelity measures in rehabilitation: A systematic review, Poster presented at the Ohio State University Wexner Medical Center Trainee Research Day, Columbus, OH.   
  
Hand, B.N., Page, S., White, S., (2014, May). Correlation of National Institute of Health Stroke Scale scores and upper extremity outcomes, Poster presented at the Occupational Therapy Summit of Scholars, Philadelphia, PA.   
  
Lane, A.E., Eldridge, J., Hand, B.N., Harpster, K., Dennis, S., (2014, May). Neural correlates of sensory subtypes in Autism Spectrum Disorder, Paper presented at the Occupational Therapy Summit of Scholars, Philadelphia, PA.   
  
Hand, B.N., Lane A.E., Heathcock, J., (2014, April). Sensory features in young infants at high and low risk for autism, Poster presented at the American Occupational Therapy Association Conference, Baltimore, MD.   
  
Hand, B.N., Lane A.E., Heathcock, J., (2013, May). Sensory features in young infants at high and low risk for autism, Poster presented at the International Meeting for Autism Research, San Sebastian, Spain.   
  
Hand, BN.., Page, S., White, S., (2013, April). Correlation of National Institute of Health Stroke Scale Scores and upper extremity outcomes, Poster presented at the Hite Symposium, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2012, November). Early sensory signs of autism: A video analysis of infants aged 2-6 months, Poster presented at the Ohio Center on Autism and Low Incidence Conference, Columbus, OH.   
  
Lane, A.E., Dennis, S., Shahin, T., Whitelaw, G., Witwer, A., Hand, B.N., (2012, May). Clinical and neurophysiologic identification of sensory dysfunction in children with autism, Poster presented at the Center for Clinical and Translational Science Scientific Meeting, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2011, May). Early signs of autism: A retrospective video analysis of mouthing during infancy, Poster presented at the Denman Undergraduate Research Forum at The Ohio State University, Columbus, OH.   
  
Hand, B.N., Heathcock, J., Lane, A.E., (2011, May). Early signs of autism: A retrospective video analysis of mouthing during infancy, Poster presented at the Multiple Perspectives Conference on Disability, Access and Inclusion, Columbus, OH.   
  
Invited Presentations   
Hand, B.N. (2016, May), Featured student speaker, School of Health and Rehabilitation Sciences 50th Anniversary. The Ohio State University. Columbus Ohio.   
  
Hand, B.N. (2016, March), Featured student speaker, Annual Scholarship Reception for the College of Medicine and School of Health and Rehabilitation Sciences. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Weaver, L. (2016, March), Biomechanics and motor learning, Scholarly presentation to the Occupational Therapy with School Age and Adolescents class, School of Health and Rehabilitation Science. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Persch, A. (2016, February), Best practices in pediatric constraint-induced movement therapy, Clinical in-service presented at Madison County Board of Developmental Disabilities. London, OH.   
  
Hand, B.N., Persch, A. (2016, January), Best practices in pediatric constraint-induced movement therapy, Clinical in-service presented at Licking County Board of Developmental Disabilities. Newark, OH.   
  
Hand, B.N., Montgomery, P., Sager, B. (2015, October). Special education services in the school, Clinical in-service presented at Focus Learning Academy of Northern Columbus. Columbus, OH.   
  
Hand, B.N. (2015, January). Pediatric physical disabilities, Scholarly presentation to the Occupational Therapy with School Age and Adolescents class, School of Health and Rehabilitation Science. The Ohio State University. Columbus, OH.   
  
Hand, B.N., Weaver, L. (2014, December). Motor skills: Development, evaluation and treatment, Presented at The Ohio State University. Columbus, OH.   
  
Hand, B, Freyman, J., Turnwald, P., Wayne, S., Lavalley, R., Kurz, B. (2013, November). Fieldwork round table panelist, Ohio Occupational Therapy Association Annual Conference and Expo. Columbus, OH.   
  
Hand, B.N., Clegg, A., Cleary, D. (2012). The role of occupational therapy in the schools, Scholarly presentation. The Ohio State University. Columbus, OH.   
  
UNIVERSITY TEACHING   
2017 Teaching Assistant, Introduction and Application of Rasch Measurement (HRS740), Medical University of   
South Carolina.   
2014 Co-Instructor, Evidence Based Practice II (AM7900), The Ohio State University.   
  
PROFESSIONAL MEMBERSHIP   
2017 – Present Member, American Congress of Rehabilitation Medicine   
2017 – Present Member, American Spinal Cord Injury Association   
2015 – 2016 Member, Ohio Occupational Therapy Association   
2011 – 2016 Member, American Occupational Therapy Association   
  
SERVICE   
2017 Membership Development Chair, Postdoctoral Association, Medical University of South   
Carolina; Charleston, SC   
2016 Judge, Denman Undergraduate Research Forum, The Ohio State University; Columbus, OH   
2015 Judge, Denman Undergraduate Research Forum, The Ohio State University; Columbus, OH   
2013 Co-Chair of Confirmations and Banking, Health and Rehabilitation Science Job Fair, The Ohio   
State University; Columbus, OH   
Editing and Reviewing Service   
2016 Manuscript reviewer for American Journal of Occupational Therapy   
  
CERTIFICATION AND LICENSURE   
2016 – Present South Carolina Board of Occupational Therapy Examiners (License #: 4872)   
2014 – Present National Board for Certification in Occupational Therapy, Inc. (Registration #: 321752)   
2014 – 2017 Ohio Occupational Therapy, Physical Therapy, & Athletic Trainers Board   
(License #: 008539)

***James Krause, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

***Kit Simpson, DrPH***  
Medical University of South Carolina

*(no CV uploaded)*

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**Correlating chronic pelvic and hip pressure injuries and bilateral hip destruction due to osteomyelitis: a case series**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Shara Yurkiewicz, MD***  
Stanford University

**CV:**  
Shara Yurkiewicz   
shara.yurkiewicz@gmail.com 201 W California Ave, Apt 1210, Sunnyvale, CA 94086 (516) 724-0086   
  
Education and Training   
Stanford Health Care, Stanford CA July 2016-June 2019 (expected)   
Residency, Physical Medicine and Rehabilitation   
  
Overlook Medical Center, Summit NJ July 2015-June 2016   
Internship, Internal Medicine   
  
Harvard Medical School, Boston, MA May 2014   
MD   
  
Yale University, New Haven, CT   
Intensive Bachelor of Science in Molecular, Cellular and Developmental Biology, Cum laude May 2009   
Distinction in Biology Major   
  
Committees and Memberships   
AAPM&R Resident Physician Council Ambassador Oct 2016-Oct 2017   
  
Work Experience   
MedPage Today Medical Journalism Fellow July 2014-July 2015   
•Wrote 3-4 medical news stories each week   
•Produced video interviews with clinicians   
•Covered specialty society conferences   
•Recruited and edited clinician contributions   
  
Public Library of Science (PLOS), Network Blogger Aug 2011-present   
Scientific American, Network Blogger Jan 2013-Dec 2014   
•Write pieces on the medical training experience   
•Over 200,000 page views   
•13 pieces featured as weekly or monthly picks on Scientific American and Discover blogs   
•15 pieces republished on medical news website KevinMD   
• One piece republished on NPR’s Krulwich Wonders blog   
  
American Medical Association Journal of Ethics (formerly Virtual Mentor), Guest Editor Dec 2011 issue   
• Developed monthly issue on my chosen theme, “The Power of Diagnosis”   
• Worked with editorial staff to develop clinical vignettes, op-ed, journal discussion, and articles on law and policy   
• Solicited and worked with authors, wrote Editor’s Note   
  
Radio and television appearances June 2011-present   
• PBS NewsHour Poetry Series   
• White Coat, Black Art, Canadian Broadcasting Corporation   
• Medical Matters, Public Radio Tulsa (NPR affiliate)   
• BYU Radio, talk radio station broadcast by Sirius XM Radio (Utah, Idaho, Hawaii).   
  
ScienceOnline 2012 Conference, Raleigh, NC,Discussion Section Co-Moderator Jan 2012   
•Annual conference of 450 journalists, scientists, physicians, and science communicators   
•Planned and ran session on self-censorship in medical writing   
  
The Hastings Center, Garrison, NY, Editorial Intern March-Aug 2010   
•Wrote for peer-reviewed journal Hastings Center Report and for online Bioethics Forum   
•Helped develop ideas for and corresponded with contributors for Report   
•Wrote press releases   
  
The National Alliance to Advance Adolescent Health,Washington, DC, Research Associate Sept 2009-Feb 2010   
•Wrote health policy reports based on analyses of qualitative research with adolescent and parent focus groups   
•Developed media contact lists and wrote press releases   
  
Los Angeles Times, Los Angeles, CA, Science and Health Reporter June-Aug 2009   
•Placement through AAAS Mass Media Science and Engineering Fellowship; only undergraduate of 12 recipients   
•Wrote 21 medical and science articles, feature items, and blog posts   
  
Discover Magazine, New York, NY, Editorial Intern May-August 2008   
•Wrote news items, feature stories, and blog posts for magazine and website   
•Researched, proofread, and fact-checked news and feature stories   
  
Yale Scientific Magazine, New Haven, CT,Articles Editor, Features Editor, Staff Writer Mar 2006-Dec 2008   
•Developed and researched story ideas, wrote and edited articles, interviewed, proofread, copyedited   
•Guided new writers, organized and led staff meetings and writing workshops   
  
Nassau Herald, Garden City, NY, Columnist Sept 2004-June 2005   
• Reported school and community events   
  
Research Experience   
Dana-Farber Cancer Institute, Boston MA, Clinical Researcher June-August 2011   
Principal Investigator Tracy Balboni, MD, MPH. Department of Radiation Oncology   
•Effect of practitioner characteristics and beliefs on the provision of spiritual care to terminally ill cancer patients   
  
Beth Israel Deaconess Medical Center,Boston, MA, Clinical Researcher October-Nov 2010   
Resident Ravi Kacker, MD.Department of Surgery   
•Risk of polycythemia in a cohort of patients undergoing testosterone replacement therapy with intramuscular injections or testosterone pellets   
  
Yale School of Public Health, New Haven, CT, Health Policy Researcher Oct 2008-May 2009   
Principal Investigator KavehKhoshnood, PhD, MPH. Department of Global Health   
•Assessment of the preparation of undergraduate students for global health research   
  
Yale University School of Medicine, New Haven, CT, Laboratory Researcher Sept 2008-May 2009, June-August 2007   
Principal Investigator Diane Krause, MD, PhD.Department of Laboratory Medicine   
•Senior thesis: Gene expression studies investigating role of RBM15-MKL1 fusion gene in differentially regulating   
transcription factors relevant to megakaryocytopoiesis   
  
Yale University School of Medicine, New Haven, CT, Laboratory Researcher June-August 2006   
Principal Investigator Stephen Strittmatter, MD, PhD.Department of Neurobiology   
•Genetic association studies of markers within the myelin-associated glycoprotein (MAG) gene in schizophrenia   
  
Columbia University Medical Center, New York, NY, Laboratory Researcher Summers 2003, 2004, 2005   
Principal Investigator Jens Husemann, MD. Department of Physiology and Cellular Biophysics   
•Effect of lovastatin on astrocyte production of MCP-1 and nitric oxide   
  
Other extracurricular activities   
-Harvard Medical School 2014 Class Day Oath Committee May 2014   
-Harvard Co-President, AMA and Massachusetts Medical Society, Medical Student Section Jan-Dec 2011   
-Third Space, Editor, Harvard Medical School’s online literary magazine Aug 2010-Dec 2011   
-Yale Undergraduate Magazine, Co-founder and Editor March 2006-May 2009   
-Yale Record, Staff Writer Sept 2006-Dec 2008   
  
Recognition   
•Featured interview in PBS NewsHour Poetry Series 2013   
•Publication in The Best Science Writing Online 2012 and 2013 2012, 2013   
•Profiled in HMS News and The Scientific American Incubator 2012   
• Harvard Medical School Ghiso Fellowship recipient 2011   
•AAAS Mass Media Science and Engineering Fellowship 2009   
•Yale-HHMI Future Scientist Fellowship 2007   
•Perspectives on Science Program and Stipend 2005-2006   
•Intel Science Talent Search Semifinalist 2005   
•National Merit Finalist 2005   
  
Selected Publications   
Peer-Reviewed Journal Articles∙   
∙ Yurkiewicz S. The prospects for personalized medicine. Hastings Center Report. 2010 Sep-Oct;40(5):14-6.   
  
Other Journal Articles   
- Yurkiewicz S. Decentering the Doctor: The Critical Value of a Patient Care Collective. AMA Journal of Ethics.   
http://journalofethics.ama-assn.org/2016/09/mnar1-1609.html. Sept 2016, Volume 18, Number 9: 960-964.   
∙ Yurkiewicz S. What is it? Virtual Mentor. 2011. The Power of Diagnosis. Dec 1;13(12):849-51. doi: 10.1001/virtualmentor.2011.13.12.fred1-1112.   
  
Book Contributions   
∙ Yurkiewicz S. Plastic Lessons. The Best Science Writing Online 2013. Scott Huler.   
∙ Yurkiewicz S. When patient stories leave the hospital room. Establishing, Managing, and Protecting Your   
Online Reputation: A Social Media Guide for Physicians and Medical Practices. Kevin Pho, Susan Gay   
(Authors). Greenbranch Publishing: Feb 22, 2013.   
∙ Yurkiewicz S. Fragmented Intimacies. The Best Science Writing Online 2012. Jennifer Ouelette, Bora Zivkovic (Eds). Scientific American/Farrar, Straus and Giroux: Sept 18, 2012.   
∙ Yurkiewicz S. Contributing essay. A Dream of Zion: American Jews Reflect on Why Israel Matters to Them.   
Jeffrey K. Salkin (Ed). Jewish Lights Publishing: Dec 30, 2009.   
  
Reports   
∙ Fox HB, McManus MA, Yurkiewicz SM. Parents’ Perspectives on Health Care for Adolescents. National   
Alliance to Advance Adolescent Health, Washington DC. June 2010.   
∙ Fox HB, Philliber SG, McManus MA, Yurkiewicz SM. Adolescents’ Experiences and Views on Health Care.   
National Alliance to Advance Adolescent Health, Washington DC. March 2010.   
  
Presentations   
∙ Yurkiewicz S and Stone J. (Jan 19, 2012.) Self-censorship in medical writing. ScienceOnline 2012,   
Raleigh, NC.   
  
Television Appearances   
∙ “For these medical students, poetry nurtures the soul.” PBS NewsHour Poetry Series. 7 Jan 2014   
  
Radio Appearances   
∙ Yurkiewicz S. Medical Matters. New understandings of the adolescent brain. 27 Feb 2014.   
∙ Yurkiewicz S and Yurkiewicz I. White Coat, Black Art. Family medicine: M.D.s + parody   
winners in the house. 21 Dec 2012.   
∙ Yurkiewicz S. White Coat, Black Art. Respect show. 7 Oct 2011.   
∙ Yurkiewicz S. White Coat, Black Art. Nurse bullying show. 16 Sept 2011.   
∙ Yurkiewicz S. White Coat, Black Art. Unfinished business. 16 June 2011.   
  
Other Articles   
Los Angeles Times   
∙ Yurkiewicz S. Trying to get comfortable with the word ‘cancer.’ Los Angeles Times. 24 Dec 2016. p. B2. Print.   
∙ Yurkiewicz S. A patient’s social history isn’t just checked-off answers. Los Angeles Times. 20 June 2011. p. E1. Print.   
∙ Yurkiewicz S. A cadaver gets under her skin. Los Angeles Times. 23 Apr 2011. pp. E1, E4. Print.   
∙ Yurkiewicz S. Fascinating facts: Inside the human body. Los Angeles Times. 23 Apr 2011. p. E4. Print.   
∙ Yurkiewicz S. In search of a better solar panel. Los Angeles Times. 29 Aug 2009. p. A25. Print.   
∙ Yurkiewicz S. Battling inflammation, disease through food. Los Angeles Times. 17 Aug 2009. pp. E1, E7. Print.   
∙ Yurkiewicz S. Inflammation and how it relates to chronic diseases. Los Angeles Times. 17 Aug 2009.   
Online feature item.   
∙ Yurkiewicz S. Mediterranean-style diet good for health, studies show. Los Angeles Times. 17 Aug 2009.   
Online feature item.   
∙ Yurkiewicz S. The four healthy choices that could change your life. Los Angeles Times. 11 Aug 2009. p. A9. Print.   
∙ Yurkiewicz S. Forehead lift may also ease migraine. Los Angeles Times. 10 Aug 2009. p. E3. Print.   
∙ Yurkiewicz S. Student scientists do fieldwork from high above California. Los Angeles Times. 25 July 2009. p. A20.   
Print.   
∙ Yurkiewicz S. Toucan’s bill keeps it cool, study finds. Los Angeles Times. 25 July 2009. p. A20. Print.   
∙ Yurkiewicz S. Is something growing in your contact lens solution? Los Angeles Times. 22 July 2009.   
Online: Booster Shots.   
∙ Yurkiewicz S. Fetuses learn not to be surprised--and researchers learn from them. Los Angeles Times. 15 July 2009.   
Online: Booster Shots.   
∙ Yurkiewicz S. Skeletal basis of turtle shells unfolds in study. Los Angeles Times. 11 July 2009. p. A20. Print.   
∙ Yurkiewicz S. Xylitol syrup curbs decay of baby teeth in study. Los Angeles Times. 11 July 2009. p. A20.   
∙ Yurkiewicz S. Different cancer survival for blacks and whites: Are genes involved? Los Angeles Times. 10 July 2009.   
Online: Booster Shots.   
∙ Yurkiewicz S. El Niño more like Los Niños, researchers find. Los Angeles Times. 4 July 2009. p. A26. Print.   
∙ Yurkiewicz S. No racial bias? Really? A brain scan may give you away Los Angeles Times. 2 July 2009.   
Online: Booster Shots.   
∙ Roan S and Yurkiewicz S. FDA Unfiltered: Experts weigh in on the ramifications. Los Angeles Times. 29 June 2009.   
p. E3. Print.   
∙ Yurkiewicz S. Tobacco through the centuries. Los Angeles Times. 29 June 2009. Online feature item.   
∙ Yurkiewicz S. No news can be bad news with medical test results. Los Angeles Times. 27 June 2009. p. A26. Print.   
∙ Yurkiewicz S. Friends, Romans, countrymen, lend me your (right) ear. Los Angeles Times. 25 June 2009.   
Online: Booster Shots.   
∙ Yurkiewicz S. Do feathers hold the key to bird sizes? Los Angeles Times. 20 June 2009. p. A20. Print.   
∙ Yurkiewicz S. Heart attack rehab may work via phone or Internet. Los Angeles Times. 17 June 2009.   
Online: Booster Shots.   
  
MedPage Today   
Cardiology   
∙ Yurkiewicz S. Hospitals Fall Short on Cardiac Rehab Rx. MedPage Today. 12 May 2015.   
http://www.medpagetoday.com/Cardiology/PCI/51480   
∙ Yurkiewicz S. Shifting Ground in the Great Salt Debate. MedPage Today. 14 Aug 2014.   
http://www.medpagetoday.com/Cardiology/Hypertension/47212   
∙ Yurkiewicz S. Did Former VP Get VIP Care? MedPage Today. 17 Nov 2014.   
http://www.medpagetoday.com/Cardiology/AcuteCoronarySyndrome/48646   
∙ Yurkiewicz S. FDA Approves Lutonix Drug-Coated Balloon. MedPage Today. 10 Oct 2014.   
http://www.medpagetoday.com/Cardiology/PCI/48037   
∙ Yurkiewicz S. FDA Approves Varicose Vein Adhesive. MedPage Today. 20 Feb 2015.   
http://www.medpagetoday.com/Washington-Watch/FDAGeneral/50125   
∙ Yurkiewicz S. Some HF Patients Fare Worse on Fluid-Diuretic Combo. MedPage Today. 6 Feb 2015.   
http://www.medpagetoday.com/Cardiology/CHF/49906   
∙ Yurkiewicz S. Early Hot Flashes May Predict Heart Disease. MedPage Today. 5 Mar 2015.   
http://www.medpagetoday.com/Cardiology/Atherosclerosis/50336   
  
Gastroenterology   
∙ Yurkiewicz S. GastroBreak: Height and Cancer, Choosing Laxatives. MedPage Today. 24 Sept 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/47805   
∙ Yurkiewicz S. GastroBreak: Pricey Hep C Tx, Gluten-Free Brain. MedPage Today. 15 Oct 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48076   
∙ Yurkiewicz S. GastroBreak: Pancreatic Ca Detection, Artificial Livers. MedPage Today. 1 Oct 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/47894   
∙ Yurkiewicz S. GastroBreak: Gluten in Infants, Ulcerative Colitis Poetry. MedPage Today. 8 Oct 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/47988   
∙ Yurkiewicz S. GastroBreak: Pot for Digestion, Transplant Battles. MedPage Today. 17 Sept 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/47707   
∙ Yurkiewicz S. GastroBreak: Stool Bank, Difficult Diagnoses. MedPage Today. 19 Nov 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48708   
∙ Yurkiewicz S. GastroBreak: Hep C Vaccine, Colon Ca Rising. MedPage Today. 12 Nov 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48545   
∙ Yurkiewicz S. GastroBreak: Gluten Anxiety, Fad Diets. MedPage Today. 5 Nov 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48417   
∙ Yurkiewicz S. GastroBreak: Missing Pancreatic Ca, Colonoscopy Spray. MedPage Today. 22 Oct 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48187   
∙ Yurkiewicz S. GastroBreak: Microbiome Hype, Frozen Feces. MedPage Today. 29 Oct 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48294   
∙ Yurkiewicz S. GastroBreak: Varying IBD Tx, Triclosan and Tumors. MedPage Today. 3 Dec 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48903   
∙ Yurkiewicz S. GastroBreak: Cheaper New Hep C Tx, Fungus in Probiotics. MedPage Today. 26 Dec 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/49291   
∙ Yurkiewicz S. GastroBreak: Pricey Pills, Crowdsourcing Feces. MedPage Today. 17 Dec 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/49169   
∙ Yurkiewicz S. GastroBreak: Hep C Lawsuits, Bacteria and BMI. MedPage Today. 26 Nov 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/48834   
∙ Yurkiewicz S. GastroBreak: The Bile-IBS Link, Presidential Heartburn. MedPage Today. 10 Dec 2014.   
http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/49032   
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http://www.medpagetoday.com/Gastroenterology/GeneralGastroenterology/49413   
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***Kazuko Shem, MD***  
Santa Clara Valley Medical Center

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**Cardiovascular Adaptations to Exercise Intervention in SCI population**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Christopher Shamatutu, BSc.***  
University of British Columbia; International Collaboration on Repair Discoveries

**CV:**  
Name: Christopher N. Shamatutu, BSc.   
  
Position Title: Research Assistant, International Collaboration on Repair Discoveries (ICORD), Faculty of Medicine, University of British Columbia; Medical Student, University of British Columbia Vancouver   
  
A. Personal Statement   
  
My research looks at the effects of exercise in the SCI population. It is focused on the cardiovascular, respiratory and psychological effects exercise has in individuals following spinal cord injury. I am especially interested in understanding how different exercise modalities impact overall cardiovascular health.   
  
Our research examines benefits to cardiovascular health in individuals with chronic SCI through optimized exercise and targeted education. We are trying to determine whether educating health care providers on specific CV problems associated with SCI will help to reduce the financial burden of care, and improve treatment of people with SCI. By providing important information on exercise training and targeted education to clinicians, this project aims to reduce chronic disease and improve cardiovascular health for Canadians living with SCI. We use body weight supported treadmill training and arm-cycle ergometry as exercise intervention modalities. We use electrocardiography, ultrasound, and blood pressure monitoring to asses cardiovascular function. We asses respiratory adaptions via peak oxygen consumptions. We combine our quantitative analysis with qualitative surveys exploring quality of life. Our early work is showing that the incidence of events such as orthostatic hypotension can be decreased with exercise   
  
  
  
B. Awards   
  
2016: Academic Leadership Award, University of Alberta   
2012-2016: Chancellor's Citation Award, University of Alberta   
2012-2016: Faculty of Science, Dean's List Honor Roll   
2012: Faculty of Science, Academic Excellence Scholarship, University of Alberta.   
2012: Academic Excellence Scholarship, University of Alberta.   
  
C. Research Support   
Canadian Institutes of Health Research (CIHR) team grant.   
(AVK principle investigator)   
Faculty of Medicine, UBC (Mach-Gaensslen Foundation, Summer Resrach Program award).   
(CNS)

***Marko Gavric, B.Kin***  
University of British Columbia; International Collaboration on Repair Discoveries

*(no CV uploaded)*

***Katharine Currie, PhD***  
Mcmaster University; Child Health and Exercise Medicine Program

*(no CV uploaded)*

***Michèle Hubli, PhD***  
University of Zurich; Spinal Cord Injury Centre

*(no CV uploaded)*

***Maureen MacDonald, PhD***  
Mcmaster University; Ivor Wynne Centre

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD***  
University of British Columbia; International Collaboration on Repair Discoveries

*(no CV uploaded)*

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**Definitions of traumatic conus medullaris and cauda equina**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Eveline Brouwers, MPA, PhD student***  
Radboud University Medical Center

**CV:**  
Biographical sketch   
Name: Eveline Brouwers, MPA, PhD student   
Position Title: Physician assistant Neurosurgery Radboud University Medical Center.   
A. Personal statement   
My research is about traumatic spinal cord injuries with special attention to the Conus Medullaris and the Cauda Equina. Lot of research was done about the recovery in spinal cord injured patients, however, research about Conus Medullaris Syndrome (CMS) and the Cauda Equina Syndrome (CES) remain long way from other spinal cord injury syndromes. Despite the fact that patients with a lesion in the lowest part of the spinal cord might have a better recovery compared to patients with higher spinal cord lesions, patients with a CMS or CES might discover bowel/bladder and gait problems which leads to serious social problems. Realization in level of lesion, spontaneous recovery and rehabilitation results will help care givers to minimize the impact of trauma to the CM and CE for patients and family. Moreover, in clinical literature, ambiguity about the definition of the CMS and CES exist. Therefore I have chosen to dedicate my PhD project to the CMS and CES. Alongside my training to become PhD, I work as Physician assistant on the neurosurgery ward at the Radboud University Medical Center, with special interest in spinal cord injured patients. Besides, I mentor medical students and doctors in training for neurology and neurosurgery.   
  
B. Positions   
2007 - 2010 Physiotherapist   
2009 - 2010 Chairman cardiovascular rehabilitation program, VieCurie Medical Center, Venlo.   
2013 - present Clinical instructor medical students, Radboud University, Nijmegen.   
2015 - present Clinical instructor at Physician Assistant program, subject neurology. Hogeschool van Arnhem en Nijmegen.   
2015-2016 Board member spine rehabilitation program. Radboud University and St. Maartenskliniek Nijmegen.   
2013 - present Physician assistant neurosurgery, Radboud University Nijmegen.   
2015 - present Chairman association of physician assistants neurosurgery Netherlands   
  
C. Contribution to science   
2013 MPA Thesis ‘the use of external lumbar drainage after cerebrospinal fluid leakage after endoscopic endonasal transsfenoidal adenectomy’.   
2017 ‘Definitions of traumatic conus medullaris and cauda equina’.   
syndrome: a systematic literature review’. E Brouwers, H van de Meent, A Curt, B Starremans, A Hosman and R Bartels. Spinal Cord (2017), 1–5.

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**Better Together! Cross Country Collaborations and Lessons Learned in the Development of a Spinal Cord Injury Program in a New Inpatient Rehabilitation Hospital**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Maneshka Perera, MS, OTR/L***  
California Rehabilitation Institute

**CV:**  
Maneshka Perera, MS, OTR/L   
  
Professional Experience   
  
California Rehabilitation Institute – Los Angeles, CA 01/17 – present   
Therapy Education Coordinator   
♣ Organize, develop, and co-lead new employee orientation for therapy and nursing staff.   
♣ Chair of spinal cord injury taskforce and spinal cord injury program steering committee.   
♣ Administrative lead in the design and development of the spinal cord injury specialty program.   
♣ Assist senior leadership in preparation for CARF, joint commission and state surveys.   
♣ Collaborate closely with director of rehabilitation services, senior and divisional leadership on program development for brain injury, stroke, limb loss, and transplant.   
♣ Educate and mentor physical and occupational therapists on clinical and leadership initiatives.   
♣ Collaborate with PPS to develop QAPI on improving admission and discharge functional independence measures along with increasing safety with functional transfers for therapy and nursing staff.   
♣ Collaborate with human resources and assist with employee engagement and recruiting initiatives along with interviewing future therapy candidates.   
  
California Rehabilitation Institute – Los Angeles, CA 03/16 –01/17   
Occupational Therapist: Inpatient Neurological Rehabilitation   
♣ Collaborated with senior leadership to assist with operations in preparation for hospital opening, inspection, and licensure.   
♣ Collaborated with nursing and divisional leadership to organize educational opportunities for therapists and nurses to address specialty areas of rehabilitation.   
♣ Developed programming and setup of complex rehabilitation technology for the medically complex population.   
♣ Mentored physical and occupational therapists on basic and advanced principles of spinal cord injury rehabilitation.   
♣ Organized, engaged, and participate in community outreach activities to promote brand recognition and increase visibility of Cal Rehab’s services.   
♣ Managed and treated a caseload of 6-8 patients with orthopedic, neurological, and medically complex diagnoses.   
  
Rusk Rehabilitation at NYU Langone Medical Center – New York, NY 05/12- 11/15   
Outpatient Neurological Rehabilitation   
♣ Accomplishments: Developed SCI clinical modules for new hires, assisted with the organization of volunteer program, submitted two grants for funding for prospective research trials, completed a retrospective research study, participated in performance improvement project for Spinal Mobility, sensorimotor technique.   
  
National Spinal Cord Injury Association, Greater New York Chapter 10/09 – 12/15   
Board of Directors 08/12 – 12/15   
♣ Led community outreach projects for individuals with SCI within the tri-state area including assisting with organization of a 5k, Sexuality conference, and SCI Awareness Day.   
♣ Facilitated peer and caregiver mentorships with newly injured SCI individuals through NYU Hospital for Joint Disease, Bellevue Hospital, and Rusk Rehabilitation Outpatient Services.   
♣ Organized fundraising events and adaptive sporting clinics including adaptive kayaking, skiing, hand cycling, horseback riding, and swimming.   
♣ Created and fostered community partnerships with SCI organizations in the tri-state area to improve care coordination and community integration including The Axis Project.   
♣ Presented SCI topics spanning best practice in clinical care, education and training and research in the field of spinal cord injury to therapists and physicians at various hospital and nursing home facilities on sponsored programs including NYU Langone Medical Center, Bellevue Hospital and the James J. Peters VA Medical Center.   
  
The Mount Sinai Medical Center – New York, NY 09/09- 05/12   
Outpatient Rehabilitation – Specialty: Spinal Cord Injury 3/11 - 05/12   
♣ Accomplishments: Developed and implemented relevant programming for SCI population including creation of a hand cycle group and wheelchair cardio class.   
  
Inpatient Rehabilitation: Spinal Cord Injury Unit 09/09- 03/11   
Teaching and Public Speaking Experience   
  
California State University, Northridge 08/16- 12/16   
Adjunct Faculty, Northridge, CA   
♣ Course entitled: Helping Children Cope with Medical Environments: 3.00 Units   
♣ College of Health and Human Development, Fall 2016   
  
Spinal Mobility, Inc. 04/13- present   
Wheeling Forward – New York, NY   
♣ Instruct physical and occupational therapists on the spinal mobility technique during a 6-hour continuing education workshop.   
♣ Have educated over 75 therapists at the following locations: Aspire Wellness Center, Touro College, Gaylord Specialty Healthcare/Hospital, Mount Sinai Medical Center, Bellevue Hospital, and Craig Hospital   
  
Wheeling Forward 05/13 – 12/15   
Spinal Mobility, Inc. Co-leader – New York, NY   
♣ Co-developed and co-led an 8-week community based exercise group with a physical therapist and founder of Spinal Mobility technique to educate individuals and caregivers with SCI to safely and effectively exercise, post outpatient rehabilitation.   
♣ Presented in-services at hospitals including Bellevue Hospital, Mount Sinai Medical Center, Harlem Hospital, St. Luke’s Roosevelt, James J. Peters VA Medical Center regarding the sensorimotor technique.   
  
Professional Publications   
  
Mastering Movement: Combining a multi-system analysis and spinal mobility technique for SCI rehab by Maneshka Perera, MS, OTR/L & Nandita Singh, MPH, OTR/L 07/2014   
  
Presentations   
  
Co-Presenter – American Congress of Rehabilitation Medicine – Chicago, IL 11/01/16   
♣ Podium presentation   
Co-Presenter – Academy of SCI Professional’s Conference – Nashville, TN 09/04/16   
♣ Podium presentation   
Co-Presenter – American Spinal Injury Association Conference – Philadelphia, PA 04/16/16   
♣ Podium presentation   
Co-Presenter – Academy of SCI Professional’s Conference – New Orleans, LA 09/08/15   
♣ Podium presentation   
Presenter – SCI Awareness Day – New York, NY 10/10/15   
Reaching to Restore Function: An Outpatient Model of Care for Clients with SCI 04/26/14   
Poster Presentation   
Education   
  
Columbia University – New York, NY   
Master of Science in Occupational Therapy, May 2009   
Co-President – Class of 2009   
♣ Represented the graduate student cohort of Occupational Therapy students and helped to improve the student experience and resolve issues within the student body.   
  
California State University, Northridge – Northridge, CA   
Bachelor of Arts in Child & Adolescent Development, Minor in Gerontology, May 2007   
  
Research   
  
Co- Investigator – Rusk Rehabilitation January 2015   
Spinal Mobility Manual Technique: A Retrospective Study   
Served as co-investigator on one IRB-approved protocol on human subjects and recently completed a retrospective research study examining 15 chronic SCI patients using the spinal mobility technique. Results demonstrated significant improvements in SCI patient's self-care skills, upper extremity strength, trunk stability, and respiratory function.   
  
  
  
Professional Memberships   
  
American Spinal Injury Association, Member 12/15 - present   
♣ Membership Committee 04/16 - present   
  
Academy of Spinal Cord Injury Professionals, Member 09/09 - present   
♣ Therapy Leadership Council 09/16 - present   
♣ Finance committee 09/16 - present   
  
Volunteer Experience   
  
Triumph Foundation – Los Angeles, CA 02/16 – present   
Wheeling Forward – New York NY 05/13 – present   
NYC Spinal Cord Injury Association 09/09 - present   
  
Certifications   
LSVT-BIG 03/15 - present

***Isa McClure, PT, MAPT***  
Kessler Institute for Rehabilitation

**CV:**  
Biographical Sketch   
Name: Isa A. McClure, PT, MAPT   
Position Title: Advance Clinical Specialist, Physical Therapy, Kessler Institute for Rehabilitation   
A. Personal Statement   
I have been a physical therapist for more than 20 years with a focus and dedication to improving the lives of individuals with spinal cord injury and dysfunction. I have a special interest in the treatment and prevention of pressure injuries, as well as mentoring new therapists in these treatments and preventative techniques. For the past 2 years, I have become more involved in Exoskeleton Assisted Walking and working in our Human Performance and Engineering lab with Dr. Gail Forrest.   
I also contribute to the field of spinal cord injury rehabilitation through service with the American Spinal Injury Association where I was Chair for Rehab Standards Committee and am currently a Vice Chair for the Education Committee.   
  
B. Positions   
Kessler Institute for Rehabilitation/Select Medical Corporation   
1199 Pleasant Valley Way   
West Orange, NJ, 07052   
1996-present   
Title: Advanced Clinical Specialist, Spinal Cord Injuries and Ventilator Dependent Spinal Cord Injuries   
  
C. Contribution to Science -   
“The Cost of a Recommended Protocol for Heterotopic Ossification in SCI Rehabilitation.” American Spinal Injury Association, New Mexico, 2017   
  
“A Case Report: Utilizing Mobile Phone Technology for Long Distance Home Modification Recommendations.” Academy of Spinal Cord Injury Professional, 2016 Nashville TN   
  
“A Survey of Protective Cushion USAge in Individuals with SCI while Traveling in a Motor Vehicle and on a Commercial Airliner,” The Journal of Spinal Cord Injury Medicine   
  
Spinal Cord Medicine   
Denise I. Campagnolo MD, Steven Kirshblum MD, Mark S. Nash PhD FACSM, Robert F. Heary MD Peter H. Gorman MD   
Physical Therapy chapter contributor   
  
Development of Web Based Durable Medical Equipment Guide, American Spinal Cord Injury Association, 2012   
  
Development of Consumer Guidelines for Choosing a Rehabilitation Facility after Spinal Cord Injury, May, 2013   
  
ASIA Executive Summary and Guidelines for Spinal Cord Injury Rehabilitation, Topics in Spinal Cord Injury, April 2012   
  
“The Extracellular Amino-Terminal Region of the   
Parathyroid Hormone (PTH)/PTH-Related Peptide Receptor Determines the Binding Affinity for Carboxyl-Terminal Fragments of PTH-(1-34). ASBMR, 1993   
  
“Body Weight Supported Treadmill Training in the Acute Rehab Setting.” NJPTA, 2004   
  
“Heterotopic Ossification in Persons with Spinal Cord Injuries from Violence related Causes.” ASIA, 2005   
  
  
SELECTED   
PRESENTATIONS:   
  
SkinStep: The development of a new E-learning Module, Academy of Spinal Cord Injury Professionals, September, 2017   
  
Update on Pressure Injuries and their Staging, Kessler Institute, April 2017   
  
Health and Wellness in Spinal Cord Injury, American Spinal Injury Association, New Mexico, 2017   
  
“Skin and Trauma” Kessler Institute Neuro-trauma Conference, December 2016   
  
Comprehensive, Interdisciplinary Upper Extremity Evaluation and Treatment for in Tetraplegia   
Instructional Course/Symposium, Inter-active (hands on),   
American Spinal Injury Association, 2016 Philadelphia, PA   
  
“Name that Wound!” An Interactive Discussion on the Staging/Prevention and Treatment and Pressure Ulcer in Spinal Cord Injury.   
Academy of Spinal Cord Injury Professional, September, 2015, New Orleans, Louisiana   
  
Stem Cells and Medical Tourism   
SCI Model Centers Leadership Forum, October, 2014   
Atlanta, Georgia   
  
“The Stem Cell Question and the Patient Family Education Series; an Update.”   
Academy of Spinal Cord Injury Professional, September, 2014 St. Louis, Missouri   
  
Prevention and Treatment of Pressure Ulcers in Patients with Spinal Cord Injury: A Transdisciplinary Approach   
American Spinal Injury Meeting, San Antonio Texas 2014   
  
“Splinting the Upper Limb in Tetraplegia,” Instructional Course to be presented at the May, 2013 American Spinal Injury Association Meeting   
  
“Spinal Cord Injury and E-Learning” Presented at the 2012 SCI Model Centers Leadership Forum, October, 2012   
  
“Use of Commercially Available Cushions for Traveling Motor Vehicles after Spinal Cord Injury,”   
American Spinal Cord Injury Association, May 2011   
Academy of Spinal Cord Injury Professional, September, 2011   
  
“Mentoring the New Physical Therapist in Wound Care,” Academy of Spinal Cord Injury Professional, September, 2011   
  
Moderator, Awards Posters, American Spinal Cord Injury Association, May 2011   
  
Moderator, Therapy Interventions, American Spinal Cord Injury Association, April 2012   
  
“Durable Medical Equipment: What Medically Necessary Versus What’s Medically Beneficial,” American Spinal Cord Injury Association, May 2010   
Academy of Spinal Cord Injury Professional, September, 2010   
  
"Novel Wound Care Treatments for Persons with SCI.” Contemporary Forums SCI Conference, March 2009   
  
“High Volt Pulsed Current and Wound Care; A Case Study”   
Wound, Ostomy, Continence Nursing Conference, 2010   
  
“Family Training for the Complex SCI Patient: A Multidisciplinary Approach to managing the Dual Diagnosis Patient,” Contemporary Forums SCI Conference, March 2009   
  
"Aging and the Acute Spinal Cord Injury: The Long Road Home." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
"The Use of High Volt Pulsed Current on a Stage IV Sacral Wound in a Medically Complex Spinal Cord Injury Patient: A Case Study." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
“Use of Specialty Cushions in Full Time Wheelchair Users with Spinal Cord Injury.” ASIA conference, June 2008   
  
"Pressure Mapping of Seating in Motor Vehicles in Full Time Wheelchair Users with Spinal Cord Injury." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
Development of Spasticity Clinic for Brain Injury and Severe Disorders of Consciousness. 2009-present   
  
Lab Assistant for SCI Evaluation and Treatment   
Techniques, UMDNJ Physical Therapy Students, Kessler Institute for Rehabilitation, 1999-present   
  
Beyond Rehabilitation, Patient and Family Lecture Series, Kessler Institute for Rehabilitation, 1999-present   
  
ALS Support Group, 1999-2001   
  
  
SELECTED RESEARCH: Safety and Efficacy of the Indego Exoskeleton, FDA study, September 2014-present   
  
The Efficacy of Denosumab to Reduce Osteoporosis after Acute Spinal Cord Injury   
US Department of Veteran Affairs   
Rehabilitation and Research Development Service   
Center for Excellence of the Medical Consequences of Spinal Cord Injury   
Current and Ongoing   
  
“Responsiveness of a Neuromuscular Recovery Scale for Spinal Cord Injury: Inpatient and Outpatient Rehabilitation,” 2012-present   
  
Pending IRB Approval: Comparison of Pressure in Airline Seating in Economy and First Class Seating in Fulltime Wheelchair Users with Spinal Cord Injury   
  
Use of Specialty Cushions in Full Time Wheelchair Users with Spinal Cord Injury.   
Platform Presentation, ASIA conference, 2008, 2009, 2010, 2011   
  
"Pressure Mapping of Seating in Motor Vehicles in Full Time Wheelchair Users with Spinal Cord Injury."   
Platform Presentation, ASIA, Congress on Spinal Cord Medicine and Rehabilitation, September, 2009   
  
  
BOOK CHAPTERS/REVIEWS:   
Expert Reviewer   
Pressure Ulcer Prevention and Treatment Following Spinal Cord Injury   
Clinical Practice Guides, Consortium for Spinal Cord Medicine   
Clinical Practice Guidelines, 2014   
  
Peer Review of Wounds/Wound Care, Spinal Cord Injury, Martha Somers.   
Gait, Caregiver Education, Therapeutic Exercise Chapters, Spinal Cord Injury, Steven Kirshblum

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**Effect of Interface Peak Pressures following the Fifth Spine Board Modification**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***James Wilson, DO***  
Metrohealth

**CV:**  
• Wilson, J., Altschuler, E. “Experience of Remotely Receiving and Delivering Resident Didactic Lectures.” Am J Phys Med Rehabil. 2016 Mar; 95(3): e40-1. PMID 26418491. 03/2016   
• Calvert, T., Isleib, A., Wilson, J., Feathers, T., "Brown-Séquard Syndrome as a consequence of cervical spinal cord infarction following cervical rhizotomy: a case report." Poster Presentation. AAP Annual Meeting. 02/2017   
• Wilson, J., Miriam, S., Riedel, P., Acevedo, P., “Trazodone associated Clitoral Priapism in a Transgender Man following Traumatic Brain Injury: A Case Report.” Poster Presentation.   
AAPM&R annual assembly. 10/2016   
• Kim, C., Wilson, J., Mowery, D., “Delayed diagnosis of Cervical Anterior Cord Syndrome in a Child with Combined Traumatic Brain and Spinal Cord Injury: A Case Report.” Poster   
Presentation. AAPM&R annual assembly. 10/2016   
• Wilson, J., Saulino, M., “Prolongation of Botulinum Toxin Effect with Zinc Supplementation.” Poster Presentation. AAPM&R annual assembly. 10/2016   
• Altschuler, E., Wilson, J. “Solutions to Vexing Issues in PM&R Residency and Fellowship Training.” Educational Presentation. Association of Academic Physiatrists Annual Meeting. 02/2016   
• Wilson, J., Feng, A., Chay, W. “Delayed Diagnosis of Idiopathic Spinal Cord Herniation: A Case Report.” Poster Presentation. AAP Annual Meeting. PMID 26863162. 02/2016   
• Feng, A., Wilson, J., Chay, W. “Functional Recovery of Tetanus Vaccine Associated Transverse Myelitis: A Case Report.” Poster Presentation. AAP Annual Meeting. 02/2016

***Helen Sun, MD***  
Case Western Reserve University

*(no CV uploaded)*

***Mary Jo Roach, PhD***  
Metrohealth

*(no CV uploaded)*

***Greg Nemunaitis, MD***  
Metrohealth

*(no CV uploaded)*

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**Time-course of Cardiac Changes following Acute Spinal Cord Injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Shane Balthazaar, BScKin, RDCS***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Name: Shane Balthazaar, BScKin, RDCS   
  
Position Title: Graduate Student, International Collaboration On Repair Discoveries (ICORD), Faculty of Medicine, University of British Columbia, Vancouver, BC   
  
A. Personal Statement   
My research could be characterized as "cardiac changes following acute spinal cord injury (SCI)" and is   
focused on the time-course of cardiac changes and different exercises to delay or prevent the effects of cardiac dysfunction following SCI. I am especially interested in understanding when these changes occur and where clinical intervention will be the most efficient.   
  
In our human research, we are studying the time-course of cardiac function in the spinal cord injury population up to a year post-injury. For this work we are using echocardiography to demonstrate various cardiac parameters such as systolic function, diastolic function, and myocardial strain. We have learned that over time, people with chronic spinal cord injuries demonstrate different cardiac indices compared to able-bodied individuals, as well as between lesion levels. We are now studying when these changes occur. We have begun to compare the cardiac indices at various time points. Early work is showing that the systolic function changes in the cervical lesion of injury as early as 6 months post-injury.   
  
I also contribute to the field of echocardiography through clinical work and teaching. In addition to performing clinical echocardiography exams on various patients that include the spinal cord injury population, I assist with various projects at the International Collaboration On Repair Discoveries (ICORD) in Vancouver, Canada.   
  
B. Positions and Honors   
Positions   
  
2014 -   
Diagnostic Cardiac Sonographer, Vancouver General & UBC Hospitals   
2014 -   
Research Sonographer, University of British Columbia   
2015 -   
Diagnostic Cardiac Sonographer, St. Paul’s Hospital   
2016 -   
Instructor, British Columbia Institute of Technology   
  
Certifications   
2011 -   
Member, Ontario Kinesiology Association (OKA)   
2014 -   
Member, American Society of Echocardiography (ASE)   
2014 -   
Member, American Registry for Diagnostic Medical Sonography (ARDMS)   
  
C. Contribution to Science   
  
1. Cardiac changes in the acute spinal cord injury population - For this work we are using echocardiography to assess cardiac function in the spinal cord injury population over time. We are also comparing the differences in cardiac indices between people with a cervical lesion injury versus a thoracic lesion injury. We have also begun to study how people with a T1-T6 lesion injury compares to a lower thoracic lesion injury.   
  
2. Assessing cardiac function after exercise intervention - Currently, preventative measures for cardiovascular disease focus around increasing physical activity- especially through the use of arm-cycle ergometry training. However, we are currently investigating if body weight-supported treadmill training, an alternative form of exercise, may be more capable of improving cardiovascular health in individuals with apinal cord injury.   
  
D. Research Support   
  
Craig H. Neilsen Foundation. Title: Cardiac function after spinal cord injury: from bench to bedside. Period: July 2013-June 2017.   
ROLE: Graduate Student/Research Assistant   
PI: Andrei V. Krassioukov   
  
Canadian Institutes of Health Research (CIHR) / Chronic disease risk and intervention strategies team grant. Title: Improving cardiovascular health for Canadians living with spinal cord injury: effects of exercise and targeted education. Period: Dec. 2011-Nov. 2016.   
ROLE: Graduate Student/Research Assistant   
PI: Andrei V. Krassioukov

***Katharine Currie, PhD, CEP, RKin***  
Child Health & Exercise Medicine Program, Department of Pediatrics, Mcmaster University

*(no CV uploaded)*

***Marko Gavric,***   
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

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**Targeting the thrombin receptor to improve recovery of function after spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Hyesook Yoon, PhD***  
Department of Physical Medicine and Rehabilitation, Mayo Clinic

**CV:**  
Biographical Sketch   
  
Name: Hyesook Yoon, PhD   
  
Position Title: Research Scientist, Physical Medicine and Rehabilitation; Assistant Professor, Department of Physiology College of Medicine, Mayo Clinic, Rochester MN.   
  
A. Personal Statement   
  
My long-term research goals revolve around understanding the pathophysiology of CNS demyelinating disorders and spinal cord injury (SCI). I was awarded a graduate fellowship from Department of Chemistry and Biochemistry at Florida State University. During my graduate student years, I conducted research in biochemistry of a novel family of serine proteases referred to as Kallikreins. This project mainly focused on the protein chemistry and enzymology using human kallikrein-related peptidases. I went on to expend this study and show how proteases of the thrombostasis axis can intersect with the kallikrein family of proteases. This was another significant advance to the field, as it showed how initial CNS/spinal cord injury or inflammatory stimuli (resulting in activation of the thrombostasis proteases) can subsequently activate a broader cascade of the Kallikrein proteases. I have gone on to make seminal studies regarding the nature of proteolytic cascades, which mediate the pathophysiology of CNS demyelinating disorders such as spinal cord injury in the Laboratory of Dr. Isobel Scarisbrick. My extensive background in Biochemistry and Cell Biology and my more recent training in neurophysiology leave me well qualified to play a leading role in the proposed studies.   
  
B. Positions and Honors   
  
Professional Positions:   
2003 - 2004 Teaching Assistant, Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL   
2005 - 2008 Research Assistant, Department of Chemistry and Biochemistry, Florida State University, Tallahassee, FL   
2008 - 2009 Postdoctoral Fellow, Department of Pathology and Laboratory Medicine, Mount Sinai Hospital, Toronto, ON, Canada   
2009 - 2010 Postdoctoral Fellow, Department of Biomedical Sciences, Florida State University, Tallahassee, FL   
2010 - 2013 Research Fellow, Physical Medicine and Rehabilitation, Mayo Clinic, Rochester, MN   
2013 - 2014 Research Associate, Physical Medicine and Rehabilitation, Mayo Clinic, Rochester, MN   
2014 - present Assistant Professor, Department of Physiology, Mayo Clinic, Rochester, MN   
2015 - present Research Scientist, Department of Physical Medicine and Rehabilitation, Mayo Clinic, Rochester, MN   
  
Honors and Awards:   
1999 – 2001 Hanyang Scholarship, Hanyang University, Seoul, South Korea   
2010 Research fellowship from Center for Multiple Sclerosis and Demyelinating Diseases (CMSDD) at Mayo Clinic   
2013 Best Poster Presentation Award at Mayo Fellow Research Day, 2013   
2013 Young Scientist Travel Award at the ASPET (Experimental Biology 2013)   
2013 Young Investigator Award at the ISABS (International society of applied biological sciences) 2013   
2013 Award for the most outstanding platform presentation at ISK 2013 (5th International Symposium on Kallikrein and Kallikrein Related Peptidases)   
2014 - 2015 Career Development Award in Center for Multiple Sclerosis and Demyelinating Diseases (CMSDD), June 2014 – May 2015   
  
Professional Memberships and Other Professional Experience   
2013 - 2014 American Society for Pharmacology and Experimental Therapeutics, Member   
2014 - present Society for Neuroscience, Member   
2015 - 2016 American Society for Neurochemistry, Member   
  
C. Contribution to Science   
  
1. My early publication demonstrated for the first time the potential enzymatic activation cascades between members of kallikrein gene family. This work showed how the kallikreins proteases could activate the pro-forms of the kallikreins, thereby forming extensity activation cascades. Importantly, I discovered that the kallikreins are likely to also operate in activation with the classic thrombolytic and fibrinolytic coagulation enzymes, including thrombin and plasmin, thereby uncovering important links between these enzymatic families and novel mechanisms of physiological action.   
  
a. Yoon, H., Lasmikanthan, G., Lee, J., Blaber, S.I., Rodriguez, A., Kogot, J.M., Scarisbrick, I.A. and Blaber, M. (2007). Activation profiles and Regulatory cascades of the human kallikrein-related peptidase, Journal of Biological Chemistry, 282(44): 31852-31864.   
b. Yoon, H., Blaber, S.I., Evans, D.M., Trim, J., Juliano, M.A., Scarisbrick, I.A. and Blaber, M. (2008). Activation Profiles of Human Kallikrein-related Peptidases by Proteases of the   
Thrombostasis Axis, Protein Science, 17: 1998-2007.   
c. Yoon, H., Blaber, S.I., Debela, M., Goettig, P., Scarisbrick, I.A. and Blaber, M. (2009). A Completed KLK Activome Profile: Investigation of Activation Profiles of KLK9, 10 and 15, Biological Chemistry, 390(4): 373-377.   
d. Blaber, M., Yoon, H., Maria A. Juliano M. A., Scarisbrick, I.A. and Blaber, S.I. (2010). Functional intersection of the Kallikrein-related peptidases (KLKs) and thrombostasis axis, Biological Chemistry, 391(4): 311-320.   
e. Yoon, H and Scarisbrick, I.A. (2016) Kallikrein-related peptidase 6 exacerbates disease in an autoimmune model of multiple sclerosis. Biological Chemistry 397:1277-1286.   
  
2. Expanding prior study, I showed how protease of the thrombostasis axis could interact with the kallikreins family of proteases. This was another significant advance to the field, as it showed how initial CNS/spinal cord injury of inflammatory stimuli can subsequently activated a broader cascade of the kallikrein protease. Particularly, I demonstrated for the first time that elevations in kallikrein 6 in the injured CNS promote injury to neurons by activation of the thrombin receptor, protease activated receptor 1 (PAR1). Thus both kallikrein 6 and PAR1 become new therapeutic targets to limit CNS pathogenesis. This finding have the high potential to provide new pre-clinical data necessary to move PAR1 and the proteases that activate it closer to clinical application for neuroprotection and myelin repair in the context of CNS demyelinating disorders.   
  
a. Scarisbrick, I.A., Yoon, H., Panos, M., Blaber, S.I., Blaber, M. and Rodriguez, M. (2012). Kallikrein 6 regulates early CNS demyelination in a viral model of Multiple Sclerosis, Brain Pathology, Feb 15, 1-14.   
b. Burda, J.E., Radulovic, M., Yoon, H. and Scarisbrick, I.A. (2013). Critical Role for PAR1 in Kallikrein 6-Mediated Oligodendrogliopathy, Glia, 61(9): 1456-70.   
c. Yoon, H., Radulovic, M., Wu, J., Blaber, S.I., Blaber, M., Fehlings, M.G. and Scarisbrick, I.A. (2013). Kallikrein 6 Signals through PAR1 and PAR2 to Promote Neuron Injury and Exacerbate Glutamate Neurotoxicity, J. Neurochemistry, 127(2): 283-98.   
d. Yoon, H., Radulovic, M., Drucker, KL., Wu, J., and Scarisbrick, I.A. (2015). The Thrombin Receptor is a Critical Extracellular Switch Controlling Myelination, Glia, 63: 846-859.   
  
3. Additional study critically evaluated the role of protease activated receptors 1 and 2 (PAR1 and PAR2) as a regulator of the spinal cord injury microenvironment by examining cellular, molecular and neurobehavioral outcomes after experimental contusion-compression spinal cord injury (SCI). Both PAR1 and PAR2 loss-of-function displayed improved locomotor recovery after SCI and reduced signatures of inflammation and astrogliosis. These findings suggest that PAR1 and PAR2 sites at the interface of the proteolytic microenvironment and cellular response that contribute to astrogliosis, pro-inflammatory event and neurodegeneration accompanying traumatic SCI. Therefore PAR1 or PAR2 may serve as a useful target to modulated astrogliosis, reduce neural injury and promote an environment favorable to repair and recovery of function after spinal cord trauma.   
  
a. Radulovic, M., Yoon, H., Wu, J., Mustafa K., Fehlings MG., and Scarisbrick, I.A. (2015). Genetic targeting of protease-activated receptor 2 reduces inflammatory astrogliosis and improves recovery of function after spinal cord injury. Neurobiology of Disease, 83: 75-89 (Co-first author)   
b. Radulovic M, Yoon H, J. W, Mustafa K, Scarisbrick IA (2016) Targeting the Thrombin Receptor Modulates Inflammation and Astrogliosis to Improve Recovery after Spinal Cord Injury. Neurobiology of Disease 93: 226-242 (Co-first author)

***Maja Radulovic, PhD***  
Mayo Clinic Graduate School of Biomedical Sciences, Mayo Clinic

*(no CV uploaded)*

***Isobel Scarisbrick, PhD***  
Rehabilitation Medicine Research Center, Department of Physiology and Biomedical Engineering, Neurobiology of Disease Program, Mayo Clinic

*(no CV uploaded)*

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**Modulation of Trunk Stimulation to Improve Efficiency of Manual Wheelchair Propulsion**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Stephanie Bailey, BS***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Kevin Foglyano, BS***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Lisa Lombardo, MSPT***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Ronald Triolo, Ph.D.***  
Case Western Reserve University/Cleveland Va Medical Center

**CV:**  
A. Personal Statement   
I am a Tenured Full Professor in the Department of Biomedical Engineering at Case Western Reserve University and serve as the Director of the Motion Study Laboratory (MSL) at the Louis Stokes Cleveland Veterans Affairs Medical Center, which is a state-of-the-art facility for the biomechanical and physiological analysis of human motion and rehabilitation outcomes for gait, posture, balance and activities of daily living after neuromuscular dysfunction. I am also a Senior Career Research Scientist and the Executive Director of the Advanced Platform Technology (APT) Center of Excellence in the VA Rehabilitation R&D Service, which is dedicated to creating new enabling medical technologies for individuals with spinal cord injury, hemiplegia, MS and lower limb amputation. Since joining the Case faculty, I have been the primary mentor to 26 pre-doctoral students and 8 post-doctoral fellows, and a member of the mentoring committees of 20 other trainees.   
I have been a researcher in the field of assistive, restorative and rehabilitative technologies for over 25 years. During this time I have conducted Phase II multicenter clinical feasibility trials of implanted neuroprostheses to provide people with paraplegia with options for exercise, standing and transfers, developed new selective peripheral neural interfaces (i.e., high density nerve cuff electrodes), pursued original research on systems to automatically regulating standing and seated balance, and designed powered exoskeletons for walking and stair climbing after paralysis, and explored new peripheral nerve approaches to restoring natural sensation to lower limb amputees. My research program has been sustained by continuous funding from the VA, NIH, DoD, DARPA, Craig H.Neilsen Foundation and USFDA.   
My trainees have gone on to earn tenure-track and research faculty positions at respected institutions such as The University of Pittsburgh, Stephens Institute of Technology, Catholic University of America, The State University of New York. Other trainees have become staff scientists in the intramural program of the NIH or the Shirley Ryan Abilities Laboratory (formerly the Rehabilitation Institute of Chicago). I serve as an active member of the Executive Committees for three NIH-funded training grants. Former mentees include the recipient of a NIH Post-Doctoral Fellowship (F32) for one MD/PhD and two SCI physician-researchers. My trainees are indicated below in boldface with post-doctoral trainees underlined.   
  
B. Positions and Honors   
Positions and Employment   
1986-1994 Director of Research, Philadelphia Unit of Shriners Hospitals & Clinical Assistant Professor, Department of Orthopaedic Surgery, Temple University, Philadelphia PA   
1994-2002 Assistant Professor, Departments of Orthopaedics and Biomedical Engineering, Case Western Reserve University, Cleveland OH   
2002-2009 Tenured Associate Professor, Departments of Orthopaedics and Biomedical Engineering, CWRU & Research Career Scientist, US Department of Veterans Affairs   
2000-Present Director, Motion Study Laboratory, Louis Stokes Cleveland Veteran’s Affairs Medical Center   
2005-Present Director, Advanced Platform Technology Center of Excellence, Rehabilitation R&D Service - US Department of Veterans Affairs   
2007-Present Senior Career Research Scientist, US Department of Veterans Affairs   
2009-Present Tenured Full Professor, Departments of Orthopaedics and Biomedical Engineering, CWRU   
  
Other Experience and Professional Memberships   
1980 – present IEEE Engineering in Medicine & Biology Society (EMBS)   
1984 Selected to Sigma Xi, Scientific Research Society   
1992 Professional Achievement Award, Villanova University,   
1999-2009 Associate Editor, IEEE Transactions on Neural Systems & Rehabilitation Engineering   
2002-2005 International Functional Electrical Stimulation Society (IFESS) – Board of Directors   
2004 Maurice Saltzman Award for Clinical/Academic Excellence, Mount Sinai Foundation   
2004 White House Committee on Emerging Technologies: The New Frontiers Initiative   
2006 – present Associate Editor, Journal of Rehabilitation of Rehabilitation Research & Development   
2014 Elected Fellow, American Institute of Medical and Biological Engineers   
  
C. Contribution to Science   
Design and Evaluation of Motor System Neuroprostheses for Standing and Walking: My interdisciplinary team of clinicians and engineers dedicated to developing, installing and evaluating the clinical outcomes of surgically implanted motor system neuroprostheses for lower extremity function after paralysis or limb loss. Contributions include developing the operative, rehabilitation and assessment techniques for efficiently deploying systems for exercise, standing, transfers and stepping, disseminating them to collaborating sites in multicenter trials, and assessing their impact on independent mobility and overall health. I have quantified the acute and chronic biomechanical and functional implications of implanted lower extremity neuroprostheses. I have established the safety of these systems and explored novel methods of integrating stimulated and volitional muscle activity through physical sensors and biological signals. My team is successfully extending our results in spinal cord injury to the stroke and MS populations, and is currently investigating the feasibility of restoring natural sensation to lower limb amputees by activating the sensory nerves in the residual limb.   
• Selkirk S, et al., Feasibility of restoring walking in multiple sclerosis with multichannel implanted electrical stimulation”, Am Jou Phys Med & Rehab, 2017 Feb 1. PMID: 28151761 (senior author)   
• Makowski NS, Kobetic ., Lombardo L, Foglyano , Pinault G, Selkirk S, Triolo R, Improving walking with an implanted neuroprosthesis for hip, knee oand ankle control after stroke, Am Jou Phys Med & Rehab 95(12): 880-888, 2016. PMC5115927   
• Chang S, et al. Improving stand-to-sit maneuver for individuals with SCI by controlling the knee with a hybrid neuroprosthesis, Jou NeuroEngr and Rehab, 13(21), 2016. PMC26979386   
• Lombardo L, et al. A preliminary comparison of myoelectric and cyclic control of an implanted neuroprosthehsis to modulate gait speed in incomplete SCI, Jou of Spinal Cord Med 38(1): 115-122, 2015. PMC4293526 (senior author)   
• Chang S, Kobetic R, Triolo R. Understanding stand-to-sit maneuver: implications for motor neuroprostheses after paralysis. Jou Rehab R & D. 51(9): 1339-1352, 2014. PMC2578673   
• Triolo RJ, et al. Longitudinal performance of a surgically implanted neuroprosthesis for lower extremity exercise, standing, and transfers after SCI. Arch Phys Med & Rehab. 93(5):896-904, 2012. PMC4111081   
• Rohde L, Bonder B, Triolo R, An exploratory study of perceived quality of life with implanted standing neuroprostheses. Jou Rehab R & D. 49(2):265-278, 2012. PMC4465790   
• Dutta A, Kobetic R, Triolo R. An objective method for selecting command sources for myoelectrically controlled lower extremity neuroprostheses. Jou Rehab R & D, 48(8): 935-948, 2011. PMID22068372   
• Bailey SN, et al. Neuroprosthetic and neurotherapeutic effects of implanted electrical stimulation for ambulation after incomplete spinal cord injury. Jou Rehab R & D 47(1): 7-16, 2010. DOI 10.1682/JRRD.2009.03.0034 (senior author)   
  
Neuroprostheses for Seated Posture, Balance and Wheelchair Propulsion: I lead an active research program dedicated to understanding and controlling the paralyzed pelvis and spine to restore vertebral alignment, improve respiration, extend bimanual reach, stabilize sitting posture, provide active sitting balance and enhance mechanical efficiency of manual wheelchair propulsion. My contributions include developing anatomically inspired musculoskeletal models of the thighs, pelvis and trunk for predictive simulations of seated activities, demonstrating clinical benefits of stiffening the trunk and pelvis with implanted neuroprostheses on active sitting function, automating regulation of upright posture in the presence of disturbances to prevent falls from the wheelchair, and expanding seated reach and manual control over objects in the environment.   
• Audu M, Triolo R. Intrinsic and extrinsic contributions to seated balance in sagittal and coronal planes: implications for trunk control after SCI, Jou Applied Biomech 31(4):221-228, August 2015.   
• Audu M et al. A neuroprosthesis for control of seated balance after spinal cord injury, Jou NeuroEngr & Rehab 15, 12-8, 2015. PMC4939827 (senior author)   
• Murphy J, et al. Feasibility of a closed-loop controller for righting seated posture after spinal cord injury, Jou Rehab R & D, 51(5): 747-760, 2014. PMID25333890 (senior author)   
• Triolo RJ, et al. Effects of trunk stimulation on manual wheelchair propulsion mechanics after spinal cord injury, Arch Phys Med & Rehab 94(10):1997-2005, 2013. PMC4103696   
• Triolo R, et al. Effects of stimulating hip and trunk muscles on seated stability, posture and reach after spinal cord injury, Arch Phys Med & Rehab 94(9):1766-75, 2013. PMC4103650   
• Wu G, et al. The effects of combined trunk and gluteal neuromuscular electrical stimulation on posture and tissue health in spinal cord injury. Phys Med & Rehab Jou 5(8): 688-696, 2013. PMC4103650 (third author)   
  
Advanced Exoskeletal and Neuromechanical Gait Assist Systems: I have designed, built and evaluated novel dynamic lower extremity exoskeletal systems that automatically lock, unlock or damp individual hip, knee and ankle joints, or kinematically couple multiple joints based on sensor feedback to facilitate standing, walking or stair climbing for individuals with neuromuscular disorders. Contributions include patented designs for thoraco-lumbo-sacral orthoses with context-dependent stiffness, ankle-foot orthoses with variable plantar/dorsiflexion power assist, and a smart-phone based hydraulic exoskeleton with variable joint constraints. Our novel “muscle first” approach integrates mechanical components with volitional or electrically activated muscle contractions to eliminate the need for motors at each joint like conventional powered exoskeletons. Muscle contractions drive limb motion in the hybrid neuromechanical system, while the exoskeleton shapes limb trajectories, facilitating or constraining movement appropriately during a functional activity. I have also devised, patented and evaluated assistive devices to facilitate the sit-to-stand transition, as well as adapt to uneven terrain to enable negotiation of stairs, ramps or other architectural barriers.   
• Foglyano K, Kobetic R, To C, Bulea T, et al. Feasibility of a hydraulic power assist system for use in a hybrid neuroprosthesis. Applied Bionics & Biomech 2015:1-8. PMC4745429 (senior author)   
• Bulea T, et al. Forward stair descent with hybrid neuroprosthesis after paralysis: single case study demonstrating feasibility, Jou Rehab R & D, 51(7):1077-1094, 2014. PMC4667789 (senior author)   
• Bulea TC, et al. Stance controlled knee flexion improves stimulation driven walking after spinal cord injury, Jou NeuroEngr & Rehab 2013, 10:68. PMC3708761 (senior author)   
• To C, Kobetic R, Bulea T, et al. Sensor-based hip control with a hybrid neuroprosthesis for walking in paraplegia. Jou Rehab R & D, 51(2):229-244, 2014 PMID24933721 (senior author)   
• Bulea TC, et al. Finite state control of a variable impedance hybrid neuroprosthesis for locomotion after paralysis. IEEE Trans Neural Sys & Rehab Engr 21(1):141-151, 2013. PMC3830532 (senior author)   
• Bulea TC, Triolo R. Design and experimental evaluation of a vertical lift walker for sit-to-stand transition assistance, ASME Jou Med Dev 6(0145041):1-5, 2012. PMC3707190   
• To C, Kobetic R, Bulea T, et al. Sensor-based stance control with orthosis and functional neuromuscular stimulation for walking after spinal cord injury. Jou Prosthetics & Orthotics, 24(3):124-132, 2012. PMID24933721(senior author)   
  
Development and Verification of Selective Peripheral Nerve Interfaces: My research team and I have applied fundamental engineering principles design, prototype and complete the in vitro and in vivo qualification new, highly selective multi-contact peripheral nerve electrodes. The devices are capable of isolating functionally distinct fascicular groups within a common nerve trunk, and activating independent non-overlapping motor unit pools in their target muscles. The interfaces cause no discernable alteration of axon diameter or myelin thickness, or change in conduction velocity while allowing access to discrete populations of axons without penetrating the epineurium. Methods to optimize the selective activation of individual motor unit pools have been developed to elicit multiple joint motions caused by isolated contractions of individual muscles from a common surgical installation site on the proximal nerve, obviating the need for multiple incisions and distal electrodes. We have completed intraoperative testing and received FDA approval to deploy the interfaces in chronic human feasibility studies.   
• Freeberg M, Stone M, Tyler M., Triolo R. The chronic tissue and neural responses to the composite flat interface nerve electrode (C-FINE) Jou Neural Engr – IN PRESS   
• Schiefer M, Freeberg M, Pinault G, Anderson J, Hoyen H, Tyler D, Triolo R. Selective activation of the human tibial and common peroneal nerves with a flat interface nerve electrode, Jou Neural Engr 10(5): 056006, 1-13, 2013. PMC3809099   
• Fisher L, Tyler D, Triolo R, Optimization of selective stimulation parameters for multi-contact electrodes, Jou of NeuroEngr & Rehab 10:25, 2013. PMC3599334   
• Joseph S, Gustafson K, Grinberg Y, Triolo R. Human distal sciatic nerve fascicular anatomy: implications for ankle control utilizing nerve cuff electrodes. Jou Rehab R & D. 49(2):309-322, 2012. PMID 22773531   
• Schiefer M, Triolo R, Tyler D. Probabilistic modeling of selective stimulation of the human sciatic nerve with a flat interface nerve electrode. Jou Comp Neurosci 33(1): 179-190, 2012. PMC3357453   
• Schiefer M, Polasek K, Triolo R, Tyler D. Selective stimulation of the common human femoral nerve with a flat interface nerve electrode. Jou Neural Engr, 7(2010): 1-9; 026006, 2010. PMC2915830   
  
Biomechanical Modeling and Control of Human Posture, Balance and Locomotion: My research team has created new computational tools to analyze the biomechanics of bipedal stance, and has applied them to study human motor control and optimize the performance of various assistive technologies that mimic the intact preparatory, reactive and predictive elements of the intact vestibular and proprioceptive systems for maintaining erect balance. Our model-based approach to control system design relies on dynamic simulations utilizing an anatomically inspired representation of the human musculoskeletal system including a fully articulated torso, pelvis and extremities with over 50 musculotendon actuators that can be individualized for each subject. Balance control systems developed in silico have been successfully implemented in the laboratory with human volunteers, and have demonstrated the feasibility of significantly reducing the upper extremity effort exerted on a walker or other support device, as well as the potential to assume and maintain user-selected task-dependent postures.   
• Nataraj R, Audu M, Triolo, R. Simulating restoration of standing balance at leaning postures with functional neuromuscular stimulation following SCI, Med & Biolog Engr & Computing 2016 Jan;54(1):163-76. PMC4775462   
• Audu M, Gartman S, Nataraj R, Triolo R. Posture dependent control of stimulation in a standing neuroprosthesis: a simulation feasibility study, Jou Rehab R & D 51(3):481-496, 2014. PMID25019699   
• Nataraj R, Audu M, Triolo R, Center of mass acceleration feedback control of standing balance by functional neuromuscular stimulation against external perturbations. IEEE Trans Biomed Engr 16(1):10-19, 2013. PMC3578290   
• Nataraj R, Audu M, Triolo R, Center of mass acceleration feedback control of standing balance by functional neuromuscular stimulation against internal postural perturbations. Jou Rehab R & D, 49(6): 889-912, 2012. PMC3573353   
• Nataraj R, Audu M, Triolo R, Comparing joint kinematics and center of mass acceleration for feedback control of standing by functional neuromuscular stimulation. Jou Neuro Engr & Rehab, 9:25, 2012. PMC3484032   
• Nataraj R, et al. Center of mass acceleration feedback control for standing by functional neuromuscular stimulation – a simulation study. Jou Rehab R & D, 49(2): 279-296, 2012. PMC3586940 (senior author)   
• Nataraj R, et al. Trunk acceleration for neuroprosthetic control of standing – a pilot study. Jou Applied Biomech 28(1): 85-92, 2012 PMC3577928 (senior author)   
• Audu M, Nataraj R, Gartman S, Triolo R. Posture shifting after spinal cord injury using functional neuromuscular stimulation – a computer simulation study, Jou Biomech. 44: 1639-1645, 2011. PMC3617559   
• Nataraj R, et al. Comprehensive joint feedback control for standing by functional neuromuscular stimulation – a simulation study. IEEE Trans Neural Sys & Rehab Engr, 18(6):46-657, 2010. PMC3570823 (senior author)   
  
D. Research Support   
Ongoing Research Support   
NIH NIBIB EB001889 (Co-PI with D. Tyler) 04/2014 – 03/2018   
“Enhancing Neuroprosthesis Performance with Nerve Cuff Electrodes”   
Goals: To address the limitations of currently available first generation neuroporstheses for standing and walking after spinal cord injury by utilizing nerve cuff electrodes to a) increase available knee extension moment and b) refine the design of high density peripheral nerve cuff electrodes for the human sciatic nerve. The project includes neuroanatomical studies, computer modeling and simulation for optimal cuff design, and both acute intraoperative and chronic clinical testing.   
  
NIH NINDS NS04547 (Co-PI with M. Audu) 07/2011 – 06/2018 (No Cost Extension)   
“Automatic Control of Standing Balance with FNS”   
Goals: To develop novel control systems to regulate posture & restore balance to users of neuroprostheses for standing after spinal cord injury; to innovative feed-forward, feedback & adaptive control techniques will monitor posture, anticipate perturbations & modulate stimulation to keep the user upright. A novel command/control system allows the user to set task-specific postures and produce a reactive step in response to large, unanticipated and destabilizing disturbances.   
  
DARPA Grant (Triolo, PI) 07/2015 – 6/2019   
“Natural Sensation for Lower Limb Amputees”   
Goals: To establish the feasibility of eliciting perceptions of foot-floor contact and ankle status by activating the intact sensory nerves of trans-tibial amputees via selective multicontact nerve cuff electrodes. Psychometric characteristics and robustness of stimulated responses and their initial implications to balance and ambulation when evoked from a sensorized lower limb prosthesis are to be determined.   
  
VA/RRD Grant (Triolo, PI) 10/2014 – 09/2021   
“Senior Career Research Scientist Award”   
This is a career development award supporting the VA portion of Dr. Triolo’s dual appointment with the Case Western Reserve University.   
  
Advanced Platform Technology Center of Excellence (Triolo, PI) 01/2015 – 12/2019   
Department of Veterans Affairs   
This VA RR&D Center provides administrative, regulatory, quality and engineering infrastructure for investigators pursuing new restorative and rehabilitative technologies. Programmatic thrusts include advanced prosthetics/orthotics, neural interfacing, health monitoring and maintenance, and enabling technologies including macromolecular or bioactive materials, microfabrication, additive manufacturing, and wireless communication.Role: Executive Director   
  
VA/RRD Grant (Triolo, PI) 08/2013 – 07/2018 (No Cost Extension)   
“Exploiting Selective Recruitment to Prolong Standing after SCI”   
Goals: To optimize and automate advanced stimulation paradigms that take advantage of the selectivity of multicontact stimulating nerve cuff electrodes to alternate between synergistic motor unit pools to delay fatigue and extend standing times with implanted neuroprostheses.   
  
  
Pending Support   
DoD SCIRP SC160104 (Co-PI with M. Audu) 10/2017 - 09/2020   
“Enhancing Seated Stability and Reaching after Spinal Cord Injury”   
Goals: To determine the feasibility of a new comprehensive control system to set task-dependent sitting postures and maintain balance at forward or side leaning positions in the presence of internally generated or externally applied perturbations to recipients of implanted neuroprostheses with SCI.   
  
DoD CDMRP DM170381 GRANT12289947 (Triolo, PI) 10/2017 - 09/2021   
“Natural Sensation of Foot-Floor Interactions for Transfemoral Amputees via Neural Stimulation”   
Goals: To establish the feasibility of eliciting perceptions of foot-floor contact and ankle status by activating the intact sensory nerves of trans-femoral amputees via selective multicontact nerve cuff electrodes. Interface with the sensor suite of a commercially available instrumented microprocessor knee to acquire feedback signals to control stimulation for home use.

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**Leveraging information from many to better serve the individual: A healthcare tool for personalized prioritization of Clinical Practice Guidelines in pressure injury management.**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Kath Bogie, D.Phil***  
Case Western Reserve University/Louis Stokes Cleveland Va Medical Center

**CV:**  
Kath Bogie, D.Phil Associate Professor, Dept of Orthopaedics, Case Western Reserve University   
Senior Research Scientist, Advanced Platform Technology Center, Louis Stokes Cleveland VA Medical Center   
  
Personal Statement:   
My translational research focuses on the treatment and prevention of chronic wounds – with a particular focus on pressure injures in individuals with spinal cord injury. My current research includes studies to determine why some people experience a continuous cycle of pressure injuries while others remain pressure injury free. I also lead the development of technology and interventions for effective wound therapy and prevention. I have over 17 years’ experience leading multidisciplinary teams including biomedical engineers, electrical engineers, clinicians, biologists and statisticians to develop and evaluate novel clinically –focused approaches from biomarkers to device development and population risk factors. I have experience in all aspects of study oversight, including monitoring budgets, complying with regulatory requirements for both human and animal studies and adhering to stated goals and timelines. I mentor students with a variety of backgrounds including biomedical engineers and clinician researchers. In my capacity as Director of the Additive Manufacturing for Biotechnology Core I provide support for the development and testing of novel biomedical approaches incorporating additive manufacturing to improve the quality of life and health for all.   
  
B. Positions and Honors   
Professional Experience   
1984-1985 Research Assistant, North Staffordshire Bio-Medical Engineering Unit, Stoke-on-Trent, UK   
1989-1994 Associate Clinical Scientist, Queen Mary and Westfield College, University of London, London, UK.   
1989-1992 Research Bioengineer, National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, UK   
1992-1994 Consultant Bioengineer, Tissue Viability Clinic, National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, UK   
1997-2001 Research Associate, Case Western Reserve University, Cleveland, Ohio   
2001-2009 Senior Research Associate, Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2004-present Senior Research Scientist, Cleveland Dept of Veterans Affairs Medical Center   
2009-2017 Adjunct Assistant Professor (Primary), Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2009-2017 Adjunct Assistant Professor (Secondary), Dept of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
2010- 2013 Research co-Director, Advanced SCIM Fellowship Program, Cleveland Dept of Veterans Affairs Medical Center   
2010 - 2014 Site Director, DETECT (Diagnostic Engineering Technologies for Evaluating Connective Tissues), Wright Center for Sensor Systems Engineering, Ohio Third Frontier Wright Projects Program   
2013 Director, Health Monitoring and Maintenance Research, Advanced Platform Technology Center, Cleveland Veterans Affairs Medical Center, Cleveland, Ohio   
2013 Director, Biocompatibility Testing Lab, Cleveland Dept. of Veterans Affairs Medical Center, Cleveland, Ohio   
2013 Director, Additive Manufacturing for Biotechnology Core, Case Western Reserve University   
2017 Associate Professor (Primary), Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2017 Associate Professor (Secondary), Dept of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
  
C. Contributions to Science   
1) Pressure injury prevention I have developed tools for multivariate tissue health assessment and to obtain more useful information from interface pressure mapping .I lead studies to determine personalized pressure injury risk based on multiple relevant intrinsic and extrinsic factors.   
a. Bogie K, Wang X, Fei B, Sun J. New technique for real-time interface pressure analysis: Getting more out of large image data sets. J Rehabil Res Dev. 2008, 45(4)   
b. Kim JH, Wang X, Ho CH, Bogie KM. Physiological measurements of tissue health; implications for clinical practice. Int Wound J. 2012 Jan 30. doi: 10.1111/j.1742-481X.2011.00935.x.   
c. Wu GA, Bogie KM. Not just quantity: gluteus maximus muscle characteristics in able-bodied and SCI individuals - implications for tissue viability. J Tissue Viability. 2013 Apr 21. PMID: 23615320   
d. Goodman BL, Schindler A, Washington M, Bogie KM, Ho CH. Factors in rehospitalisation for severe pressure ulcer care in spinal cord injury/disorders. J Wound Care. 2014 PMID: 24762380   
  
2) Chronic wound therapeutic interventions: Translational research in the area of wound therapy has included studies of the physiological effects of electrical stimulation on chronic wounds.   
a. Bogie KM, Garverick SL, Zorman CA, Howe DS, Integrated surface stimulation device for pain management and wound therapy. Patent #: 9320907 awarded April 26, 2016   
b. Graebert J, Henzel MK; Honda KS, Bogie KM. Systemic evaluation of electrical stimulation for ischemic wound therapy in a pre-clinical in-vivo model Advances in Wound Care – Discovery Express 2014, 3(6): 428-437   
c. Howe DS, Dunning J, Zorman C, Garverick SL, Bogie KM. Development of an integrated surface stimulation device for systematic evaluation of wound electrotherapy. Ann Biomed Eng. 2015 Feb;43(2):306-13. Epub 2014 Oct 2. PMID: 25274162.   
  
3) Pressure injury prevention- dynamic intermittent gluteal stimulation (iGSTIM): Innovative clinical feasibility studies using a percutaneous iGSTIM system. showed that regular daily use of dynamic iGSTIM has a positive impact on multiple indirect indicators of tissue health,   
a. Bogie KM, Wang X, Triolo RJ. Long term prevention of pressure ulcers in high risk individuals: a single case study of the use of gluteal NMES. Arch Phys Med Rehabil, 87(4):585-91, 2006   
b. Kim J, Ho CH, Wang X, Bogie K. The use of sensory electrical stimulation for pressure ulcer prevention. Physiother Theory Pract. 2010 Nov;26(8):528-36. Epub 2010 Jul 22   
c. Wu GA, Lombardo L, Triolo RJ, Bogie KM. The effects of combined trunk and gluteal neuromuscular electrical stimulation on posture and tissue health in SCI. PM&R. 2013 Mar 28. PMID: 23542776   
  
4) Multidisciplinary research in chronic wound management: I have written 8 chapters and 12 invited papers on this area, including both teaching and novel approaches, and developed a consensus paper that set priorities on four categories: risk factors, clinical management, education and environment of care.   
a. Bogie K, Ho CH. Multidisciplinary approaches to the pressure ulcer problem. OWM. 53(10): 26-32, 2007   
b. Ho CH, Bogie K., Integrating Wound Care Research into Clinical Practice OWM 53(10): 18-25, 2007   
c. Henzel MK, Bogie KM, Guihan M, Ho CH. Pressure ulcer management and research priorities for patients with spinal cord injury: Consensus opinion from SCI QUERI Expert Panel on Pressure Ulcer Research Implementation. J Rehabil Res Dev. 2011; 48(3):xi–xxxii.   
  
5) Wound measurement: We found that electronic devices are superior to manual techniques in achieving valid measurements of wound area. and that a reliable 3D wound measurement can be obtained without having to depend on the limited resources of the specialist wound care nurse. Accurate monitoring of wound geometry can adaptively predict healing progression.   
a. Haghpanah S, Bogie KM, Banks PG, Wang X, Ho CH. Reliability of electronic vs. manual wound measurement methods. Arch Phys Med Rehabil. 87(10):1396-402, 2006.   
b. Davis AJ, Nishimura J, Seton J, Goodman BL, Ho CH, Bogie KM. Repeatability and clinical utility in stereophotogrammetric measurements of chronic wounds. J Wound Care. 2013 PMID: 23665664   
c. Xu Y, Sun J, Carter RR, Bogie KM. Personalized prediction of chronic wound healing: An exponential mixed effects model using stereophotogrammetric measurement. JTV. 2014 PMID: 24810677   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/collections/public/1Rok1sZA\_i4t782Z5SHM4VF5d/?sort=date&direction=ascending   
  
Recent Presentations (prior 5 years)   
1. October 2014: Shear and Tissue Integrity - the state of the science. ISO Standards group, London, UK.   
Practical challenges in clinical assessment of soft tissue shear: where we are now and future potentials.   
2. February 2016: Association of Academic Physiatrists Annual Meeting, Sacramento, CA   
Personalized pressure ulcer prevention in spinal cord injury: developing a multivariate biomarker approach   
  
3. April 2016: Research showCASE 2016, Case Western Reserve University, Cleveland, OH   
A R package for Personalized Wound Healing Prediction/Monitoring with Shiny App   
  
4. September 2016: World Union of Wound Healing Societies, International Congress, Florence, Italy   
Harnessing bioinformatics to provide individualized pressure ulcer prevention planning based on clinical practice guideline prioritization   
  
5. September 2016: World Union of Wound Healing Societies, International Congress, Florence, Italy   
Multivariate biomarkers for personalized pressure ulcer prevention in spinal cord injury.   
  
6. October 2016: Heal Ohio- Akron, Ohio.   
From the 18th Century to today: Electrotherapy for ischemic wounds.   
  
7. August 2017: Military Health System Research Symposium, Orlando FL   
MAEDS: modular adaptive electrotherapy delivery system. An electroceutical approach for effective treatment of wound infection and promotion of healing   
  
8. August 2017: Paralyzed Veterans of America (PVA) 7th Annual Summit + Expo: National Harbor, MD   
Why some pressure injuries may be unpreventable: Biomarkers for identification of personalized pressure injury risk   
  
9. August 2017: Paralyzed Veterans of America (PVA) 7th Annual Summit + Expo: National Harbor, MD   
A Personalized Healthcare tool for Pressure Injury Prevention.

***Kristi Henzel, MD, PhD***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***GQ Zhang, PhD***  
University of Kentucky

*(no CV uploaded)*

***Steve Roggenkamp,***   
University of Kentucky

*(no CV uploaded)*

***Jiayang Sun, PhD***  
Case Western Reserve University

*(no CV uploaded)*

***Arielle Bloostein,***   
Case Western Reserve University

*(no CV uploaded)*

***Jacinta Seton,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***MaryAnn Richmond, MD, DVM***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Monique Washington,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***John McDaniel, PhD***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Jennifer Graebert,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***David Lemmer,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Katie Schwartz,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

**97**

**Effect of Interface Peak Pressures following the 4th Spine Board Modification**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***George Robles, MD***  
Metrohealth Rehabilitation Institute of Ohio/Case Western Reserve University

**CV:**  
A: Personal Statement   
I have a broad background that encompasses Environmental Science, Molecular Biology, General Internal Medicine, Palliative Care, and Medicine for the Elderly. I am currently pursuing my interest in Rehabilitation Medicine and in the final year of a PM&R residency at MetroHealth/Case Western Reserve University. It was during this training that I became interested in the special needs of spinal cord injury patients and in particular the skin complications they are at risk for. This is my fist project of this kind using pressure mapping to study pressure ulcer reduction. My research preceptor, Dr Nemunaitis, is well renowned in the spinal cord community and has written several papers describing pressure mapping on modified spine boards along with the protocol used to complete this research. This study describes the fourth prototype spine board constructed on the information learned from three prior iterations with the aim of reducing interface pressures.   
  
B. Experience and Honors   
Positions:   
1993 - 1996, s97 Staff Research Associate, Department of Laboratory Medicine, University of California – San Francisco   
  
2001- 2002 Intern, James Connolly Memorial Hospital, Dublin, Ireland   
  
2002 - 2004 Medical Senior House Officer (Internal Medicine), James Connolly Memorial Hospital, Dublin, Ireland   
  
2004 Senior House Officer (Psychiatry), St Vincent’s Hospital Fairview, Dublin, Ireland   
  
2005 Medical Registrar (PM&R), National Rehabilitation Hospital, Dublin, Ireland   
  
2006 - 2014 Medical Officer, Department of Geriatric Medicine, Our Lady’s Hospice Harold’s Cross, Dublin, Ireland   
  
2014-present Resident in Physical Medicine and RehabilitationMetroHealth/Case Western Reserve University, Cleveland Ohio, USA   
  
Honors   
1998 Second Class Honours Gr II, Biochemistry   
1998 Second Class Honours Gr II, Behavioral Science   
1999 Second Class Honour, Ophthalmology   
2000 First Class Honour, General Pracice   
2000 Second Class Honour, Oto-Rhino-Laryngology   
2017 Chair Award for Resident Professionalism, PM&R   
  
C. Contribution to Science   
a) I was part of laboratory working on basic research on the human immunodeficiency virus working towards gaining a betting understanding of the virus at a time when its structure and infection mechanisms were still in the process of being fully understood. My work there involved creating an HIV DNA clone library with mutations at various sites within the Intergrase enzyme coding region. The work involved becoming proficient with DNA manipulation and study techniques.   
1. Leavitt AD, Robles G, Alesandro N, Varmus HE. Human Immunodeficiency Virus Type I Integrase Mutants Retain In Vitro Integrase Activity Yet Fail to Integrate Viral DNA Efficiently During Infection. J Virol. 1996 Feb;70(2):721   
  
b) While working at our lady’s hospice and care services in Dublin, Ireland I was interested in the various complications affecting the over 65 elderly patient population. At the time I had access to a cohort of patients admitted for short stay comprehensive physical rehabilitation to a 24 bed short stay unit. With the collaboration from the department of Radiology at St Jame’s Hospital in Dublin, we were able to study the prevalence on constipation in this cohort of patients.   
1. Donohoe D, Robles G, Dowling S, McNally S. Prevalence of Constipation in the Elderly. Journal of the Irish Nurses Organization. 2008 Jan; 16(1): 29-30   
  
D. Scholastic Performance   
Passed all exams for licensure in the United States sponsored by Federation of State Medical Boards (FSMB) and the National Board of Medical Examiners (NBME) with the following scores:   
USMLE Step 1 - 230   
USMLE Step 2 CK - 242   
CS- Pass   
USMLE Step 3 - 213

***Mary Joan Roach, PhD***  
Metrohealth System/Case Western Reserve University

**CV:**  
N/A

***Gregory Nemunaitis, MD***  
Metrohealth Rehabilitation Institute of Ohio/Case Western Reserve University

**CV:**  
N/A

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**Racial/Ethnic Differences in Obesity in Individuals with Spinal Cord Injury: The Impact of Disadvantaged Neighborhood**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***HUACONG Wen, MS***  
University of Alabama at Birmingham

**CV:**  
Name: Huacong Wen   
Education:   
Aug.2015-present, PhD Program, Rehabilitation Science, Department of Physical Therapy, University of Alabama at Birmingham;   
Jun. 2011 – Jul.2014, Master of Medicine, Rehabilitation Medicine & Physical Therapy, Nanjing Medical University;   
Sep.2006 –Jun.2011, Bachelor of Medicine, Rehabilitation Medicine, Chengdu University of Traditional Chinese Medicine   
  
Research Experience:   
Jan.2017-Jul.2017, Co-Principal investigator , Project: Race, Neighborhood, and Obesity after Spinal Cord Injury, Mid South Trandisciplinary Collaborative Center for Health, Disparities Research, University of Alabama at Birmingham;   
  
Sep.2016-present, Graduate Research Assistant, National Database of Spinal Cord Injury, University of Alabama at Birmingham;   
  
Jun.2012–Jul.2012, Research Assistant, 4th Follow-up Assessment of Victims from 2008 Sichuan Earthquake, Chinese Association of Rehabilitation Medicine;   
  
Jul.2012–Aug.2012, Team Member & Interpreter, Disaster Acute Rehabilitation Team Program, University of Michigan   
  
Publication:   
• Huacong Wen, JD Reinhardt, JE Gosney, M Baumberger, Xia Zhang, Jianan Li. Spinal cord injury-related chronic pain in victims of the 2008 Sichuan earthquake: a prospective cohort study. Spinal Cord 2013; 51: 857–862.   
• Huacong Wen, Yin He, Scott C. Bickel, Yuying Chen. Analysis of racial differences in weight change of individuals with spinal cord injury over 5 years. [abstract]. Archives Physical Medicine and Rehabilitation, 2016;97(10): e46.   
  
Article Under Review:   
• Huacong Wen, Yuying Chen, Yin He, C. Scott Bickel, Susan Robinson-Whelen, Allen W. Heinemann. Racial differences in weight Gain: a 5-year longitudinal study of persons with spinal cord injury. (Revise and Resumbit: Archives of Physical Medicine and Rehabilitation)   
  
Presentations:   
• Huacong Wen, Andrew J. Haig, Josh Verson, Lars Johnson, Yih-Chieh Chen. A Comparison of Rehabilitation Management after Natural Disasters in Different Countries. 7th International Society of Physical and Rehabilitation Medicine World Congress, Beijing, June 2013. Poster   
  
• Huacong Wen, Yin He, Scott C. Bickel, Yuying Chen. Analysis of racial differences in weight change of individuals with spinal cord injury over 5 years. Poster presented at the 93rd annual meeting of American Congress of Rehabilitation Medicine, Chicago, IL.   
  
• Huacong Wen, Yuying Chen. Racial/ethnic differences in prevalence of obesity after spinal cord injury. Poster presented at the UAB Health Disparities Research Symposium 2017.   
  
Clinical Experience:   
Jun.2010– Jun.2011, Medical Intern, 1st Affiliated Hospital of Chengdu Medical College;   
Sep.2012–Jul. 2014 , Physical Rehabilitation Medicine Intern, 1st Affiliated Hospital of, Nanjing Medical University;   
  
Teaching Experience:   
2017, Teaching Assistant, Department of Physical Therapy, University of Alabama at Birmingham, Course: RHB 400 Introduction to Rehabilitation Science, Session: Obesity after Spinal Cord Injury.   
  
Awards:   
• Winner of the Spinal Cord Injury-ISIG Early Career Poster Award, 93rd annual meeting of American Congress of Rehabilitation Medicine.   
  
• 2013, National Graduate Scholarship, Ministry of Education of the People's Republic of China, Certificate No. 33365   
  
Foreign Languages:   
Chinese, English

***Yuying Chen, MD, PhD***  
University of Alabama at Birmingham

*(no CV uploaded)*

***Amanda Botticello, PhD, MPH***  
Kessler Foundation

*(no CV uploaded)*

***Sejong Bae, PhD***  
University of Alabama at Birmingham

*(no CV uploaded)*

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**Vasomotor and Sudomotor Activity during Heat Stress in Persons with Spinal Cord Injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Michelle Trbovich, MD***  
Ut Health Science Center at San Antonio

**CV:**  
  
NAME: Trbovich, Michelle Brand   
  
A. Personal Statement   
My main research interest is thermoregulation in SCI as it relates to athletes and athletic performance. More specifically my goals are to gain a better understanding of the pathophysiology of autonomic dysfunction as it relates to thermoregulation post-SCI and to determine optimal cooling interventions during heat stress. I began studying thermoregulation in persons with SCI as a resident in 2007, specifically looking at the efficacy of cooling vests in regulating core body temperature in SCI athletes. I later completed a study comparing the efficacy of artificial sweat, ice slush and cooling vest in reducing core temperature of SCI wheelchair athletes under heat stress, the results of which are in preparation for submission. During my SCI clinical fellowship, I studied heat acclimation in persons with SCI alongside Dr. Mike Price, PhD who is well published in thermoregulation in SCI and has recently invited me to co-author a chapter entitled “Thermoregulation after Spinal Trauma” in a Thermoregulation textbook. This study was continued during my SCI Advanced Research fellowship. As a staff physician since 2011, I mentored resident physicians in a project to determine the accuracy of the Center for Disease Control (CDC) definition of fever to define infection in persons with SCI; the results were presented at Academy of Spinal Cord Injury Professionals in 2013. Since 2013, I have served as an expert consultant on Dr. Kellogg’s RO3 study, which aims to investigate vasomotor and blood pressure responses to heating in persons with SCI. I remain an active member of national SCI organizations, serve as a peer reviewer and a mentor to PM&R residents in SCI clinical care and research.   
B. Positions and Honors   
Positions/Employment   
2011 Staff Physician, Veterans Affairs Palo Alto, CA   
2011 Clinical Instructor in Department of Orthopedics, Stanford University, Stanford, CA   
2011-present Staff Physician, South Texas Veterans Health Care system, San Antonio, TX.   
2011-present Assistant Professor, Faculty, UT Health Science Center at San Antonio, Department of Rehabilitation Medicine   
  
Other Experience and Professional Memberships   
2004 Elected medical student representative. Medical School Admissions Committee. UTHSCSA   
2005-2010 Member: American Academy of PM&R   
2005-2010 Member: Association of Academic Physiatrists   
2008 Resident Liason to the Program Committee, Association of Academic Physiatrists (AAP)   
2010 Board Certification in Spinal Cord Injury. Certificate number 564   
2010 Board Certified in Physical Medicine and Rehabilitation. Certificate number 9615   
2010-present Member: American Spinal Injury Association (ASIA)   
2011 Expert consultant: Jazz Pharmaceuticals, Palo Alto, CA   
2012-present Member: Academy of Spinal Cord Injury Professionals (ASCIPRO)   
2013-present Director: SCI Home Care Program, STVHCS   
2014-present Chairman: Clinical Competency Committee, UTHSCSA PM&R program   
2015 Peer Reviewer: American Journal of Physical Medicine and Rehabilitation   
  
Honors   
2005 Humanism in Medicine Award, Gold Humanism Honor Society, UTHSCSA, 2004-2005   
2007 ERF New Investigator Research Award, Foundation of PM&R   
2007 Invited Faculty for poster presentation. Congress on Spinal Cord Medicine and Rehabilitation. Orlando, FL   
2008 Invited Lecturer. International Convention on Science, Education and Medicine in Sport (ICSEMIS). Guangzhou, China   
2008 Invited Faculty for poster presentation. Congress on Spinal Cord Medicine and Rehabilitation.   
Orlando, FL   
2009 Invited Lecturer. American Academy of Physical Medicine and Rehabilitation (APM&R)   
Austin, TX   
2012 Invited Lecturer. International Convention on Science, Education and Medicine in Sport (ICSEMIS). Glasgow, Scotland   
2013 Invited Faculty for poster presentation. Academy of Spinal Cord Injury Professionals. Las Vegas, NV   
2014 Invited Lecturer. American Spinal Injury Association annual meeting. San Antonio, TX.   
2014 Invited Faculty for poster presentation. American Spinal Injury Association annual meeting. San Antonio, TX.   
2014 Invited Faculty for poster presentation Academy of Academic Physiatrist national meeting. Nashville, TN.   
2016 Invited Faculty for poster presentation. Academy of Academic Physiatrists, Sacramento, CA   
  
  
C. Contributions to Science   
1. Given the reported ability of a cooling vest to maintain core temperature in the non-SCI and multiple sclerosis populations, we sought to test its efficacy in SCI athletes in a “field based” setting. As the PI, I obtained an “ERF New Investigator Award” from the Foundation of PM&R in the amount of $10,000 as a PGY2 to support the research. We recruited the largest number of participants of any cooling intervention study in SCI to date from local wheelchair basketball and rugby teams and examined core temperature during exercise with and without a cooling vest. The vest was not effective at maintaining core temperature in persons with SCI during exercise. This work led me to hypothesize that the lack efficacy of cooling vest in the SCI population is either due to the vest precluding evaporative cooling and/or triggering a local cutaneous vasoconstriction that reduces heat conduction due from the cold vest in the skin. My goal is to evaluate this hypothesis with mechanistic and physiologic studies in the future. The proposed study for this CDA award will provide me with the experience I need in physiologic research techniques to examine local thermoregulatory reflexes (i.e.,sweating and vasodilation) so I will be equipped to apply these state of the art techniques for future studies.   
Trbovich M; Ortega C; Schroeder J; Fredrickson M. The Effect of a Cooling Vest on Core Temperature in Athletes with and without Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. January 2014: 70-80.   
  
2. Per the National SCI Database, the causes of death that appear to have the greatest impact on reduced life expectancy in SCI are pneumonia and septicemia. One of the most common presenting symptoms of infection is fever, defined as 100.4°F by the Center for Disease Control (CDC). We hypothesized that thermoregulatory dysfunction in SCI may preclude temperature elevation amidst infection. Utilizing the VISN 17 database of all SCI person diagnosed with an infection from 2008-2013 (about 1000 in number), we examined the frequency at which aural temperature exceeded the CDC definition of 100.4°F at the time an infection was diagnosed. We concluded that veterans with SCI do not frequently mount temperatures consistent with the CDC definition of fever (100.4°F). Ninety percent of persons with SCI identify family physicians as their primary providers who may not have an appreciation for such thermoregulatory dysfunction. Therefore in absence of a fever, diagnosis and workup for infection might be delayed. Our results challenge the accuracy and sensitivity of the CDC fever definition to diagnose infection in SCI. We aim to conduct a prospective study to further validate these findings. I served as a mentor to a PMR resident on this project.   
Trbovich M, Li C, Lee S. Does the CDC Definition of Fever (100.4 deg F) Accurately Define Infection in Persons with Spinal Cord Injury? Topics in Spinal Cord Injury Rehabilitation. Vol. 22, No. 4, Fall 2016: 260-268.   
Li C, Yang S, Trbovich M. Abstract: Does the CDC Definition of Fever (100.4 deg F) Accurately Define Infection in Persons with Spinal Cord Injury? Journal of Spinal Cord Medicine. September 2013:528-529.   
3. Persons without SCI are able to acclimate to heat over 1-2 weeks, however given the thermoregulatory dysfunction in persons with SCI, we sought to determine the length of time required for heat acclimatization in the SCI population. Dr. Mike Price, a well-published exercise physiologist in the area of thermoregulation in SCI obtained a grant to travel from his Coventry University, Coventry, UK to Stanford, CA to collaborate with me on this study during my Advanced SCI Research Fellowship in 2010. I obtained funding, recruited all subjects and was present to oversee all data collection. This study concluded that the 7 day heat acclimation protocol did not elicit traditional heat acclimation changes in non-athletic persons with SCI. Dr. Mike Price presented these findings in Greece in 2011 and we were subsequently invited to give an oral presentation of these findings at the International Convention of Exercise and Medicine in Sport in Glasgow Scotland in 2012. I was later invited to present these findings at the American Spinal Injury Association annual scientific meeting in 2014.   
Trbovich M, Price MJ, Kiratli J. The Effects of 7-day Heat acclimation Protocol in Persons with Spinal Cord Injury. Journal of Thermal Biology. 2016 Dec;62(Pt A):56-62.   
Price, M. J., Kiratli, J., and Brand, M. (2011). “The effects of a 7-day heat acclimation protocol in persons with paraplegia and tetraplegia,” Proceedings of the 14th International Conference on Environmental Ergonomics, Nafplio, Greece, July 2011 (Nafplio).   
4. Pain in persons with SCI is often refractory to traditional pharmacologic agents and may have a negative impact on quality of life. Capsaicin 8% patch is a recently approved FDA medication for neuropathic pain however the efficacy to reduce pain in the SCI population has not been tested. Encouraging retrospective data on 2 patients suggests significant improvement in pain scores for prolonged periods of time after one application of the patch. The Texas chapter of the Paralyzed Veterans of America has recently funded a pilot/feasibility study for a prospective randomized crossover trial of the Capsaicin 8% patch in persons with SCI and we are currently enrolling patients for this study of which I am the PI.   
  
Trbovich M, Yang H. Capsaicin 8% Patch for Central and Peripheral Neuropathic Pain of Persons with Incomplete Spinal Cord Injury: Two Case Reports. Am J Phys Med Rehabil. 2015 Aug;94(8):e66-72   
  
5. Shoulder dysfunction is common in persons with SCI due to muscle imbalance created by neurological injury to the cord and nerve roots supplying rotator cuff muscles utilized during wheelchair propulsion. Muscle fatigue over prolonged propulsion can contribute to shoulder injury. As the PI, I collaborated with Dr. Sakiko Oyama, PhD from University of Texas at San Antonio (UTSA) and Dr. Cathy Ortega, EdD, PT from the UTHSCSA physical therapy department as Co-PIs for this project. This study aimed to determine which arm stroke technique, pump (P) or semicircular (SC), is most energy efficient for long periods of propulsion. Motion-capture software (VICON), EMG, BORG scores and dynamometer testing were main outcome measures. For feasibility we tested the model in 18 able-bodied males, measuring BORG scores and dynamometer strength testing after P vs. SC propulsion. While the sample size was too small for statistical significance, the SC trended towards resulting in greater fatigue in both dynamometer readings and Borg RPE scores. These trends could become significant should the sample size be larger. During long distance propulsion, the Pump technique may help conserve energy and thus prevent fatigue and overuse injuries. Two posters have been presented on this project at various phases in our study. Manuscript for this pilot study is in preparation. To validate these findings in the SCI population, a follow up study is planned in persons with SCI via continued collaboration with Dr. Oyama at UTSA and her doctoral and post doc students.   
  
Trbovich M, Bickelhaupt B, Benfield J, Burau K, and Oyama S. Effect of Wheelchair Stroke Pattern on Arm Muscle Fatigue. Academy of Academic Physiatrist’s national meeting. Sacramento, CA. Feb 16-20, 2016.   
  
Trbovich M, Bickelhaupt B, Benfield J, Burau K, and Oyama S. Stroke Pattern Efficiency and Muscle Fatigue during Wheelchair Propulsion using Electromyography, VICON Nexus, and SmartWheel Technology. Academy of Spinal Cord Injury Professionals national meeting, Minneapolis, MN. August 31-Sep 3, 2014.   
  
Complete list of Published Work in My Bibliography: http://www.ncbi.nlm.nih.gov/sites/myncbi/1pIx3\_MKz55QW/bibliograpahy/48903152/public/?sort=date&direction=ascending   
D. Research Support   
Ongoing:   
  
Vasomotor and Sudomotor Activity During Heat Stress in Persons with Spinal Cord Injury   
Agency: Career Development Award-2, Rehabilitation and Research Development 1/2017- 12/2022   
The goal of this project is to examine the vasomotor and sudomotor responses during heat stress and then utilize topical agents to manipulate areas of intact skin blood flow and sweating responses to elucidate the underlying neurological controls of each.   
  
Capsaicin 8% patch in persons with spinal cord injury, a randomized controlled trial   
Agency: Texas Paralyzed Veteran’s of America Trbovich (PI) 8/1/2015-8/1/2017   
The goal of this project is to collect pilot data on the efficacy of the capsaicin 8% patch for neuropathic pain in persons with spinal cord injury.   
Role: PI   
  
Completed Research Support:   
Thermoregulation in Spinal Cord Injured Athletes and the Efficacy of a Cooling Vest   
Foundation of PM&R Trbovich (PI) 9/1/2007-7/1/2009   
ERF New Investigator Research Grant   
This project tested the extent of exercise-induced hyperthermia in SCI and able bodied athletes during wheelchair basketball and rugby. Subsequently, we tested the ability of the cooling vest to attenuate exercise-induced hyperthermia.   
Role: PI   
  
Heat Acclimation in Spinal Cord Injury   
Paralyzed Veterans of America Trbovich (PI) 9/01/10 – 3/01/2011   
This project tested the ability of persons with SCI to acclimate to heat over 7 consecutive days of exercising in a heat chamber.   
Role: PI   
  
  
TRPV1 mediation of local vasoconstrictor reflexes in spinal cord injured humans   
R03NS083961 Kellogg (PI) 7/01/13 – 6/30/17   
Agency: NIH-National Institute of Neurological Disorders and Stroke   
This project tests the hypothesis that TRPV1 receptors mediate enhanced local vasoconstrictor responses found caudal to the level of injury in spinal cord injured humans is due to augmented TRPV1-mediated local neurovascular reflexes.   
Role: SCI expert consultant

***Dean Kellogg, MD, PhD***  
Ut Health Science Center at San Antonio

*(no CV uploaded)*

**100**

**The use of machine learning algorithms for predicting the functional recovery following traumatic spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Yann Facchinello, PhD***  
Research Center, Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Marie Beauséjour, PhD***  
Department of Surgery, Faculty of Medicine, University of Montreal

*(no CV uploaded)*

***Andréane Richard-Denis, MD***  
Research Center, Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Cynthia Thompson, PhD***  
Research Center, Hôpital Du Sacré-Coeur De Montréal

*(no CV uploaded)*

***Jean-Marc Mac-Thiong,***   
Research Center, Hôpital Du Sacré-Coeur De Montréal

**CV:**  
RESEARCH AND PROFESSIONAL EXPERIENCE:   
  
Positions and Employment   
  
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada   
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada   
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada   
2010-… Chief Medical Officer, Spinologics Inc., Canada   
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada   
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada   
Other Experience and Professional Memberships   
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association   
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society   
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society   
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation   
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal   
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group   
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)   
2014-… Associate Member, Harms Study Group   
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé   
2012-13 Associate Member, North American Spine Society   
2012-… Member, American Spinal Injury Association   
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis   
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research   
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities   
2008-… Member, Scoliosis Research Society   
  
Honors   
  
2015 Ansys Hall of Fame 2015 Best in Show: Corporate   
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)   
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)   
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research   
2011 Scoliosis Research Society Traveling Fellowship   
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting   
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting   
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society   
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé   
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal   
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal   
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal   
  
Publications   
H-index: 27 i10-Index: 56   
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong   
  
Peer-reviewed publications on spinal cord injury   
  
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J   
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology   
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]   
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)   
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]   
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]   
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]   
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]   
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68   
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33   
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6   
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8   
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23   
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68   
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4   
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47   
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6   
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54   
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22   
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24   
  
Peer-reviewed publications on other spine-related projects (2015-2017)   
  
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]   
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]   
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]   
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94   
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32   
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62   
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796   
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4   
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2   
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8   
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7   
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65   
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11   
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31   
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30   
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35   
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20   
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6   
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7   
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003   
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51   
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43   
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8   
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21   
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1   
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20   
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34   
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64   
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)   
  
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017   
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017   
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.   
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014   
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014   
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014   
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014   
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014   
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

**101**

**Barriers to employment among those with spinal cord dysfunction: A comparison of participants with SCI and MS**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***James Krause, PhD***  
Medical University of South Carolina

**CV:**  
Personal Statement   
Motivated by my own spinal cord injury (SCI) over 45 years ago at age 16 (C4), I committed my adult life to understanding the long-term consequences of neurologic injury on health, quality-of-life (QOL), employment, and longevity. Our research team has received several research grants for which I am Principal Investigator (PI), including multiple longitudinal studies focused on aging, health, long-term employment, and QOL outcomes. I have served as PI on a 6-year study of changes in health and QOL among underserved populations, a 10-year study of transition from injury onset to community, a 15-year study of secondary health conditions, and a 45-year study of the natural course of SCI. I was honored to receive the 2011 National Medtronic Courage Award for outstanding contributions to the health, welfare, and rehabilitation of people with disabilities, which previously was awarded to several highly recognizable individuals including Sen. Bob Dole, Sen. Max Cleland, former Attorney General Janet Reno, actor/activist Christopher Reeve, and physicist Stephen Hawking. Awards such as this reflect the collective efforts of a great research team, key collaborating institutions, and contributions of over 6000 research participants.   
  
B. Positions and Honors   
Positions and Employment   
1989-1993 Staff Psychologist, Shepherd Spinal Center, Atlanta, GA   
1990-2002 Behavioral Scientist, Shepherd Center, Atlanta, GA   
2004-present Director, Center for Rehabilitation Research in Neurological Conditions, Medical University of South Carolina, Charleston, SC   
2003-present Associate Dean for Research, Medical University of South Carolina, Charleston, SC   
2002-present Scientific Director, South Carolina SCI Research Fund, Charleston, SC   
2002-present Faculty, Medical University of South Carolina, Charleston, SC, Rank: Professor (2005-present), Associate Dean for Research (2003-present)   
  
Recent Honors   
2011 NARRTC Research Award, outstanding published paper by a NIDRR grantee in 2010, second time receiving award   
2011 Medtronic National Courage Award (previous awardees include Sen. Robert Dole, Sen. Max Cleland, Secretary of State Janet Reno, physicist Stephen Hawking, activist Christopher Reeve), Courage Center   
2012 NARRTC Distinguished Service Award, National Association of Rehabilitation Research and Training Centers, (previous awardees: Sen. Thomas Harkin, Sen. Robert Dole)   
2013 American Spinal Injury Association (ASIA) Anniversary Award, May 6, 2013. Awarded in recognition of Dr. Krause’s work as Editor-in-Chief of Topics in Spinal Cord Injury Rehabilitation, the official journal of ASIA.   
2015 Academy of Spinal Cord Injury Professionals, Essie Morgan Lectureship, September 7, 2015. The Essie Morgan Lecture is an invited lectureship awarded to persons who have made significant contributions to the advancement of social services for persons with SCI.   
2016 Scholar of the Year, College of Health Professions, Medical University of South Carolina, Charleston, SC, December 12, 2016   
  
C. Contribution to Science   
My most significant contributions are in the following areas related to SCI: (1) risk and protective factors for mortality, (2) the natural course and effects of aging, (3) prevalence and risk of secondary health conditions, and (4) racial ethnic disparities in outcomes.   
(1) When I first began my work as a graduate student in the late 80s, life expectancy for people with SCI was believed to be very low with high rates of mortality inevitably related to the severity of the SCI. In my first publication, I used data collected 11 years earlier in relation to current mortality status, identifying several significant relationships between psychosocial and vocational adaptation and future mortality status.1 Although general in nature, these findings challenged the existing beliefs that life expectancy after SCI was almost completely explained by the severity of the injury and demographic factors, with little hope for change outside of medical interventions to improve function. In 1996, I developed a conceptual model that differentiated four levels of predictors of mortality and a series of mediational relationships that could successively be used to predict and prevent excess mortality after SCI.2 In subsequent years, I was lead investigator on multiple initiatives to better delineate the relationship of behavioral and socioenvironmental variables (particularly socioeconomic status) and all-cause mortality and differential life expectancy. These efforts led to multiple refinements in the conceptual model, with particularly important findings related to the relationships between education, employment, and income (all of which are the focus of disability policy) and substantial variations in life expectancy. This line of research has led to several individual awards for scholarship, and I currently serve as principal investigator on the most recent extension of this research, investigating differential risk of cause-specific mortality after SCI.   
(2) I have been privileged to serve as principal investigator of the most long-standing longitudinal study of SCI, the 45-year SCI Longitudinal Aging Study, for the past 25 years. When the study was initiated in 1973 by my mentor Dr. Nancy Crewe, we knew very little about the lives of people with SCI after they left the rehabilitation hospital. As a graduate student, I encouraged Nancy to do a follow-up to this study in 1984 and took over leadership in 1989, conducting follow-ups as PI every 4-5 years since that time. This study has been instrumental in our understanding of the fundamental natural course of participation, health, employment, and quality-of-life after SCI. Of particular importance, we have identified how longitudinal changes in outcomes over time parallel global environmental changes using sequential designs.3,4 Building upon earlier work, we have identified changing trajectories of hospitalizations and utilization of services.4 Most importantly, our most recent analyses among those with extraordinary survival, having been in the study for the full 40 years, indicated a dramatic increase in the number of non-routine treatments and hospitalizations (this work was recently published and was the focus of an invited awards presentation at the Academy of Spinal Cord Injury Professionals 2015 annual conference).5,6   
(3) Secondary health conditions gained attention in the early 1990s as research expanded from a near exclusive focus on short-term outcomes within the first year after SCI onset to a more inclusive consideration of the years and decades thereafter. My contributions have reflected both conceptual and empirical work, including, but not limited to, the aforementioned development of the conceptual model and other work with a wider array of collaborators.7 The work of our research team, under my leadership, has been essential in identifying the prevalence of high-risk behaviors including an elevated rate of cigarette smoking among those with SCI, overuse of psychotropic prescription medications, and high prevalence of pain medication misuse.8,9 We broke new ground in identifying a continuing pattern of high risk for unintentional injuries,10 which has led to a greater emphasis on prevention of falls and the relationship of personality factors with ongoing risk of secondary health conditions. I serve as PI and project director of a Rehabilitation Research and Training Center on Secondary Conditions in Individuals with SCI, which includes multiple independent studies and a core set of epidemiologic variables assessed with over 4000 participants with SCI over the past five years.   
(4) Racial ethnic disparities in access to care and health outcomes among those with severe physical disability represent an important area of concern where the risk of adverse outcomes among underserved populations is elevated beyond that observed in the general population. We have made consistent contributions to our understanding of racial ethnic disparities in outcomes after SCI and TBI. I served as first author on three publications focused only on Native Americans with SCI,11-13 the only such studies to appear in the literature with SCI. I led a Disability and Rehabilitation Research Project (DRRP), entitled the Center for Health Outcomes Research on Underserved Populations with Neurologic Conditions. This center included studies of both TBI and SCI. In terms of specific findings, we identified differential patterns of use of the emergency department (ED), with substantially greater use of the ED among nonwhite participants, yet a significantly lower risk of hospitalization after an ED visit.   
  
Citations (full list of published work located at: http://www.ncbi.nlm.nih.gov/sites/myncbi/1FgBcisj9S1QG/bibliography/49767571/public/?sort=date&direction=ascending.)   
  
1. Krause JS, Crewe NM. Prediction of long-term survival of persons with spinal cord injury: An 11 year prospective study. Rehabilitation Psychology. 1987;32:205-213.   
2. Krause JS. Secondary conditions and spinal cord injury: A model for prediction and prevention. Top Spinal Cord Inj Rehabil. 1996;2(2):217-227.   
3. Krause JS, Sternberg M. Aging and adjustment after spinal cord injury: The roles of chronologic age, time since injury, and environmental change. Rehabilitation Psychology. Win 1997;42(4):287-302.   
4. Krause JS, Cao Y, Bozard JL. Changes in hospitalization, physician visits, and self-reported fitness after spinal cord injury: a cross-sequential analysis of age, years since injury, and age at injury onset. Arch Phys Med Rehabil. Jan 2013;94(1):32-37.   
5. Krause JS. 40 years of SCI research: Essie Morgan Lectureship. Journal of Spinal Cord Medicine. 2015;38(5):645.   
6. Krause JS, Newman JC, Clark JMR, Dunn M. The natural course of spinal cord injury: changes over 40 years among those with exceptional survival. Spinal Cord. May 2017;55(5):502-508.   
7. Jensen MP, Molton IR, Groah SL, et al. Secondary health conditions in individuals aging with SCI: Terminology, concepts and analytic approaches. Spinal Cord. May 2012;50(5):373-378.   
8. Saunders LL, Krause JS, Saladin M, Carpenter MJ. Prevalence of cigarette smoking and attempts to quit in a population-based cohort with spinal cord injury. Spinal Cord. Apr 28 2015;53(8):641-655.   
9. Krause JS, Clark JM, Saunders LL. Pain medication misuse among participants with spinal cord injury. Spinal Cord. Aug 2015;53(8):630-635.   
10. Krause JS. Risk for subsequent injuries after spinal cord injury: a 10-year longitudinal analysis. Archives of Physical Medicine and Rehabilitation. Nov 2010;91(11):1741-1746.   
11. Krause JS, Coker J, Charlifue S, Whiteneck G. Depression and subjective well-being among 97 American Indians with spinal cord injury: A descriptive study. Rehabilitation Psychology. 1999;44:354-372.   
12. Krause JS, Coker J, Charlifue S, Whiteneck GG. Health behaviors among American Indians with spinal cord injury: Comparison with data from the 1996 Behavioral Risk Factor Surveillance System. Arch Phys Med Rehabil. Nov 1999;80(11):1435-1440.   
13. Krause JS, Coker JL, Charlifue S, Whiteneck GG. Health outcomes among Americans Indians with spinal cord injury. Archives of Physical Medicine and Rehabilitation. July 2000;81(7):924-931.   
  
D. Research Support   
  
Current Research Support   
90DP0098 Krause (PI) 9/30/2016 – 9/29/19   
Administration for Community Living/NIDILRR   
A Multidisciplinary Approach to Translating New Knowledge into Practice to Promote Health and Well-being after Spinal Cord Injury   
The purpose is to translate new scientific knowledge relating to health and function to reduce risk of secondary health conditions and other health complications after SCI by developing automated individualized risk profiles for use by consumers with SCI and interdisciplinary healthcare providers.   
Role: Principal Investigator   
  
90IF0112 Krause (PI) 9/30/2016 – 9/29/19   
Administration for Community Living/NIDILRR   
Aging and Spinal Cord Injury: A 45-year Longitudinal Study   
The purpose is to identify the natural course of health, participation, need for medical services, life satisfaction, and self-reported problems after SCI using an expanded version of the Life Situation Questionnaire.   
Role: Principal Investigator   
  
  
90IF0119 Krause (PI) 9/30/2016 – 9/29/19   
Administration for Community Living/NIDILRR   
Number, Primary and Secondary Diagnoses, and Costs of Inpatient Hospitalizations in a Population-based Cohort of People with Spinal Cord Injury   
The purpose is to identify (1) the number of hospitalizations, primary and secondary diagnoses, and costs among a population-based cohort with SCI, (2) psychological, socio-environmental, and behavioral factors associated with each hospitalization parameter, and (3) the relationship of hospitalization to participation and quality of life.   
Role: Principal Investigator   
  
90SI5016 Krause (Investigator - subcontract) 9/30/2016 – 9/29/21   
Administration for Community Living/NIDILRR   
Collaborative Research Project with the Southeastern Regional SCI Model System at Shepherd Center   
Emergency Department Visits, Related Hospitalizations, and Reasons for Utilization of the Emergency Department after SCI   
The purpose is to identify the prevalence and predictors of emergency department visits, emergency related hospitalizations, and the reasons for emergency department visits after SCI.   
Role: Principal Investigator   
  
Krause (PI) 9/30/2016 – 9/29/219   
Dept of Defense   
Understanding, Predicting, and Preventing Life-changing and Life-threatening Health Changes among Veterans and Civilians with Spinal Cord Injury   
The purpose is to use a qualitative methodology, combining individual interviews and focus groups with SCI participants and family members to identify the themes and patterns underlying the development of negative health spirals and their associated predictive factors.   
Role: Principal Investigator   
  
90RT5035 Krause (Investigator - subcontract) 10/1/13 – 9/30/18   
Administration for Community Living/NIDILRR   
Rehabilitation Research and Training Center on Employment of Individuals with Physical Disabilities   
Collaborative Research Project with Virginia Commonwealth University Study 2: Successful employment and quality work life after severe disability: Comparison of predictive models with multiple sclerosis and SCI   
Role: Principal Investigator for Study 2   
  
90IF0070 Krause (Co-investigator) 10/1/14 – 9/30/17   
Administration for Community Living/NIDILRR   
Prevalence of Chronic Disease after Spinal Cord Injury: A Longitudinal Study   
The purpose of this study is to study the longitudinal prevalence of chronic disease in an aging SCI population.   
Role: Co-investigator   
  
90IF0066 Krause (PI) 10/1/14 – 9/30/17   
Administration for Community Living/NIDILRR   
Risk of Early Mortality after Spinal Cord Injury   
The purpose of the study is to identify risk and protective factors for all-cause mortality and specific causes of mortality after SCI.   
Role: Principal Investigator   
  
90DP0050 Krause (PI) 10/1/12 – 9/30/17   
Administration for Community Living/NIDILRR   
Successful Employment and Quality of Work Life after Severe Disability due to SCI   
The purpose of this study is to assess employment outcomes across the work life cycle among persons with SCI and investigate factors related to successful employment.   
Role: Principal Investigator   
  
Completed Research Support   
90IF0015 Krause (PI) 10/1/11 – 9/29/16   
Administration for Community Living/NIDILRR   
Participation, Subjective Well-being, Health, and Spinal Cord Injury: A 40-Year Longitudinal Study   
The purpose of this study is to use 40-year longitudinal data to identify the natural course of changes in employment, participation, health, life satisfaction and self-reported problems using an expanded version of the Life Situation Questionnaire.   
Role: Principal Investigator   
  
90SI5002 Krause (Investigator-subcontract) 10/1/11 - 9/30/16   
Administration for Community Living/NIDILRR   
Collaborative Research Project with the Southeastern Regional SCI Model System at Shepherd Center   
A Longitudinal Study of Gainful Employment 10 years after SCI Onset: Comparisons of Those Who Do and Do Not Return to the Pre-injury Employer   
The purpose of this study is to conduct a 10-year longitudinal follow-up to identify predictors of post-injury employment, while developing distinct models for return to the pre-injury employer and obtaining new employment after SCI onset.   
Role: Principal Investigator   
  
90RT5003 Krause (PI) 10/1/09 – 5/31/17   
Administration for Community Living/NIDILRR   
Rehabilitation Research and Training Center on Secondary Conditions in Individuals with Spinal Cord Injury   
The purpose of this study is to increase our knowledge and ability to predict and prevent secondary health conditions, identifying the role of access to healthcare and using laboratory assessments of cardiovascular disease risk factors. This, coupled with education and training, dissemination, and technical assistance will directly result in a network of well-informed professionals to apply their skills to diminish the likelihood of secondary conditions and increase longevity after SCI.   
Role: Principal Investigator

***Yue Cao, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

***Melinda Jarnecke,***   
Medical University of South Carolina

*(no CV uploaded)*

**102**

**Comparison of abdominal compression devices in persons with abdominal paralysis due to spinal cord injury.**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Jennifer Hastings, PT, PhD, NCS***  
University of Puget Sound

**CV:**  
CURRICULUM VITAE   
  
  
Jennifer Dee Hastings   
(Former professional name: Jennifer Hunsaker Young)   
University of Puget Sound, School of Physical Therapy   
  
Licensure Information:   
  
1986-present State of Washington: PT000034438   
  
1985-1988 State of Massachusetts: 5661   
  
Certifications:   
  
2000 Clinical Specialist in Neurologic Physical Therapy   
American Board of Physical Therapy Specialties (re-certified 2009)   
  
  
Employment and Positions Held:   
  
Professor   
Tenured   
University of Puget Sound   
Tacoma, WA   
July 2016-present   
  
Director of Physical Therapy and Professor   
University of Puget Sound   
Tacoma, WA   
2013-July 2016 (tenured 2016)   
  
Director of Physical Therapy and Associate Professor   
Tenure line   
University of Puget Sound   
Tacoma, WA   
2010-2013   
  
Director of Clinical Education and Clinical Associate Professor   
Non-tenure   
University of Puget Sound   
Tacoma, WA   
2007-2010   
  
Private Practice Clinician   
Maximum Mobility Physical Therapy   
Kent, WA   
2003-present   
  
Research Health Science Specialist   
Intermittent Consultant   
GS-12   
Department of Research and Development   
DVA Puget Sound Health Care System   
Seattle, WA   
July 07-Sept 07   
  
Research Health Science Specialist   
Research Coordinator   
Body Composition in Veterans with SCI & D   
GS-12   
Department of Research and Development   
DVA Puget Sound Health Care System   
Seattle, WA   
Jan 07-June 07   
  
Adjunct Faculty   
University of Indianapolis   
Krannert School of Physical Therapy   
Indianapolis, IN   
2001-2007   
  
SCI Clinical Specialist   
Spinal Cord Injury Service   
GS-11   
DVA Puget Sound Health Care System   
Seattle, WA   
2003-2006   
  
Adjunct Faculty   
University of Puget Sound   
Tacoma, WA   
2003-2004   
  
Clinical Associate Professor   
Non Tenure   
University of Puget Sound   
Tacoma, WA   
2002- 2003   
  
Clinical Assistant Professor   
Non Tenure   
University of Puget Sound   
Tacoma, WA   
1998-2002   
  
SCI Clinical Specialist Consultant   
Spinal Cord Injury Service   
GS-11   
DVA Puget Sound Health Care System   
Seattle, WA   
1998-2003   
  
Clinical Specialist   
Physical Therapist III   
Comprehensive Outpatient Rehabilitation Program   
Harborview Medical Center   
Seattle, WA   
1999-2002   
  
Peer Reviewed Publications:   
  
Chung-Ying Tsai, Ph.D; Michael Boninger, MD; Jennifer Hastings, PhD; Rory Cooper, PhD; Laura Rice, PhD; Alicia Koontz   
The Immediate Biomechanical Implications of Transfer Component Skills Training on Independent Wheelchair Transfers. Archives of Physical Medicine and Rehabilitation Vol. 97, Issue 10, p1785–1792   
Published online ahead of print April 12,2016   
  
George D. Fulk, PT, PhD and Jennifer Hastings, PT, PhD, NCS   
“Manual Wheelchair Mobility Skills”; CH 8 (2016) in O’Sullivan and Schmitz   
Improving Functional Outcomes in Physical Rehabilitation, second edition   
Philadelphia, PA: F.A. Davis Co.   
  
Hastings J, Shapiro S. Healing Wounds under Mechanical Stress: A Case Example.   
International Journal of Clinical Medicine (IJCM) Vol. 7 No. 2 2016. http:www.scirp.org/journal/IJCM February 22, 2016.   
  
Hastings J, Dickson J, Tracy L, Baniewich C, Levine C. Conservative treatment of neuromuscular scoliosis in adult tetraplegia: a case report. Archives of Physical Medicine and Rehabilitation, Vol. 95, Issue 12, p2491–2495   
published online ahead of print May 7, 2014   
  
Hastings J, Harvey L, Bruce J, Somers M   
Compensation allows recovery of functional independence in people with serious motor impairments following spinal cord injury: a short communication. (2012)   
Letter to Editor- Journal of Rehabilitation Medicine 44:277-278.   
Published on line 3-8-2012   
  
Peer reviewed scientific/professional Presentations:   
  
Brun-Cottan N, McMillian D, Hastings J   
“Defending the Art of Physical Therapy: Expanding Inquiry and Crafting Culture in Support of Therapeutic Alliance”   
Poster Presentation   
Combined Section Meeting of the APTA   
New Orleans, LA Feb 2017   
  
Hastings J, Brown C, McNabb M, Repasky C   
“The use of Heel Lifts for Individuals with Parkinson’s Disease to Improve Postural Stability”   
Poster Presentation   
Combined Section Meeting of the APTA   
New Orleans, LA Feb 2017   
  
Hastings J, Brown C, McNabb M, Repasky C   
“The use of Heel Lifts for Individuals with Parkinson’s Disease to Improve Postural Stability”   
Poster Presentation   
American Congress of Rehabilitation Medicine Annual Meeting   
Atlanta, GA Oct 2017   
  
Wilson A, Hastings J   
Reading Comprehension as an Admission Criteria in an Entry-Level Physical Therapist Program: Correlation between the Nelson Denny Reading Test and the GRE   
Poster Presentation   
Education Leadership Conference of the APTA   
Columbus, OH Oct 2017   
  
Hastings J, Anderson T, McKirgan K.   
“Comparing seated pressures in daily wheelchair and sports equipment and investigating the skin protective effects of padded shorts”   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
Albuquerque, NM, April 2017   
Abstract Published: Topics in Spinal Cord Injury Rehabilitation, 2017 Vol23 Supplement 1 p46   
  
Brun-Cottan N, McMillian D, Hastings J   
“Defending the Art of Physical Therapy: Expanding Inquiry and Crafting Culture in Support of Therapeutic Alliance”   
Flash Paper Presentation   
Health Humanities Consortium   
Houston, TX, March 2017   
  
Hastings J, Muller A.   
“Novel Sensory Intervention to Promote Late Motor Recovery in an Individual with Incomplete Spinal Cord Injury: A Case Report”.   
Poster Presentation   
9th World Congress for Neurorehabilitation (WCNR)   
Philadelphia PA, May 2016   
  
Muller A, Hastings J.   
“Novel Sensory Intervention to Promote Late Motor Recovery in an Individual with Incomplete Spinal Cord Injury: A Case Report”.   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
Philadelphia PA, April 2016   
  
Hastings J   
“What Are The Barriers To Use Of Abdominal Binders In Persons With Abdominal Paralysis Due To Spinal Cord Injury?”   
Poster Presentation   
Combined Meeting International Spinal Cord Society and American Spinal Injury Association   
Montreal Canada, May 2015   
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“A non-surgical option to correct neuromuscular scoliosis in adult tetraplegia: a case review”   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
San Antonio, TX May 2014   
Topics in Spinal Cord Injury Rehabilitation, 2014:20 Supplement 1: 72-73   
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“Investigation of a non-surgical option to correct neuromuscular scoliosis in adult quadriplegic: a case review”   
Platform Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Prusynski R, Collins E, Stabler A, Bartel H, Hastings J   
“Posture and Upper Quarter Pain: Individualized Wheelchair Seating Intervention For Subjects With Thoracic SCI: A Case Series”   
Platform Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Hastings J.   
Successful Healing Of Grade IV Ischial Pressure Ulcer With Home Electrical Stimulation And Progressive Reseating (5 year follow up)   
Poster Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“Investigation of a non-surgical option to correct neuromuscular scoliosis in adult quadriplegic: a case review”   
Poster Presentation   
Combined Section Meeting of the APTA   
San Diego CA Jan 2013   
  
Prusynski R, Collins E, Stabler A, Bartel H, Hastings J   
“Posture and Upper Quarter Pain: Individualized Wheelchair Seating Intervention for Subjects with Thoracic SCI: A Case Series”   
Platform Presentation   
7th World Congress for NeuroRehabilitation   
Melbourne Australia May 2012   
  
Funded/In Review Grant Activity:   
none   
  
Current/ Active Research Activity:   
  
Current Comparison of Abdominal Compression Devices in Persons with Abdominal paralysis Due to Spinal Cord Injury   
Collaboration with students –internal funding   
  
Current Heel lift intervention effects on stability for individuals with Parkinson’s disease and plantar flexion contractures.   
Collaboration with students – internal funding   
  
Current Investigating seated pressure of individuals with SCI in personal adaptive sport equipment and daily wheelchair   
Collaboration with students- internal funding   
  
Membership in Scientific/Professional Organizations:   
  
American Physical Therapy Association   
  
Chair, Consortium for Humanities, Ethics and Professionalism   
Academic Council (2016-present)   
  
Clinical Education Terminology Task Group   
Academic Council (2012-2013)   
  
Nominating Committee, Academic Council   
Education Section (2010-2012)   
  
Chair, Spinal Cord Injury Special Interest Group   
Neurology Section (2008-2011)   
  
Vice chair, Spinal Cord Injury Special Interest Group   
Neurology Section (2000-2004)   
  
American Society of Neurorehabilitation   
  
American Spinal Injury Association   
  
Advocacy Committee (2016- current)   
Chair subcommittee on Length of Stay   
Programming Committee (2010-2014)   
  
Academy of Spinal Cord Injury Professionals   
  
International Spinal Cord Society   
  
  
Consultative and Advisory Positions Held:   
  
2013-2016 Clinical Advisory Council   
Tilite   
  
2007-2010 SCI Expert Panelist (representing) American Physical Therapy Association   
SCI and Sexuality and Reproductive Health Clinical Practice Guideline   
Consortium for Spinal Cord Medicine Clinical Practice Guidelines   
Paralyzed Veterans of America   
  
2002-2007 Executive Committee-Spinal Cord Injury QUERI   
Quality Enhancement Research Initiative   
Department of Veterans Affairs   
  
2006-2007 SCI Expert Consultant   
Hooked on Evidence   
American Physical Therapy Association   
  
  
2004 Expert Reviewer (representing) American Spinal Injury Association   
Preservation of Upper Limb Function Following Spinal Cord Injury: Clinical Practice Guidelines for Health Care Professionals.   
Consortium for Spinal Cord Medicine Clinical Practice Guidelines   
Paralyzed Veterans of America   
  
1998 Editor   
“Caring for People with SCI/D: A Guide for Personal Care Assistants”   
Department of Veterans Affairs Education Project, Renee Christensen project manager   
  
1996-1998 Mono and Bi Ski Training Specialist   
SKIFORALL, Seattle, WA   
  
1993 Research and Development Advisor   
MCI Technologies (wheelchairs)   
Santa Clara, CA

***Michaela De Groot, SPT***  
University of Puget Sound

**CV:**  
not required this is not a course

***Jennifer Swartz, SPT***  
University of Puget Sound

**CV:**  
not required this is not a course

**103**

**Changes in spinal cord mitochondria with high fat diet consumption: Implications for the trajectory of recovery after spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Monica Langley, PhD***  
Mayo Clinic

**CV:**  
BIOGRAPHICAL SKETCH   
  
NAME: Langley, Monica R.   
POSITION TITLE: Research Fellow   
  
A. Personal Statement   
My long term research interests involve developing novel therapeutic strategies for the attenuation of neuroinflammatory and neurodegenerative processes underlying neurological disorders. During my undergraduate career at the University of Wisconsin- Parkside, I was fortunate to complete an independent research project on the effects of pharmaceutical drugs on sleep and circadian rhythms under the supervision of Dr. Ed Wallen and in collaboration with Northwestern Univeristy. Following my bachelor’s degree, I worked for Covance in Madison, WI as a Study Technician in the pathology department and as a Histotechnologist at Iowa Pathology Associates in Des Moines, IA. I began exploring neurodegenerative disorders as a Research Associate for PK Biosciences in Ames, IA, where I led a drug discovery research project related to kinases and autophagy. As a Graduate Research Assistant at Iowa State University (ISU) in Dr. Anumantha Kanthasamy’s lab, I designed, conducted, and analyzed complex studies in translational models of Parkinson’s Disease (PD) using state-of-the-art molecular biological, neurochemical, and behavioral techniques. Specifically, I researched mitochondrial dysfunction, the efficacy of anti-neuroinflammatory and antioxidant interventions in PD models, non-motor behavioral symptoms, and the interactions between genetic and environmental factors. During my graduate career, I was highly motivated and recognized for my work by receiving several awards through regional and national conference presentations. Additionally, I was presented with the Department of Biomedical Sciences Research Excellence award from the Graduate College at graduation. Furthermore, I have actively engaged in interdisciplinary, collaborative research with other scientists within my home department and other departments or institutions, both domestic and international. I have also held numerous leadership roles in student organizations at ISU and through the Society of Toxicology (SOT), where I chaired scientific symposia and organized workshops, seminars, webinars, and research conferences. Recently, I began my postdoctoral research fellowship in Dr. Isobel Scarisbrick’s neural repair laboratory at the Mayo Clinic in Rochester Minnesota, where my initial project focuses on the effects of high fat diet on mitochondria function in the brain and spinal cord in models of Multiple Sclerosis and spinal cord injury.   
  
B. Positions and Honors   
Positions and Employment   
05/2009 – 08/2009   
Laboratory Technician, Northwestern University   
08/2009 – 01/2011   
Study Technician III, Covance   
01/2011 – 05/2011   
Histotechnologist, Iowa Pathology Associates   
05/2011 – 08/2011   
Research Associate, PK Biosciences Corp.   
08/2011 – 05/2017   
Graduate Student Research Assistant, Iowa State University   
05/2017 –   
Research Fellow, Mayo Clinic   
Other Experience and Professional Memberships   
11/2010 – 11/2012   
Bronze Member, American Association of Laboratory Animal Sciences   
10/2012 – 05/2017   
Student Member, SOT   
05/2013 – 05/2014   
Student Representative, Drug Discovery Specialty Section, SOT   
08/2013 – 05/2014   
Member, Programming Subcommittee, Graduate Student Leadership Committee (GSLC), SOT   
08/2013 – 08/2014   
Secretary, Toxicology Graduate Student Organization (TGSO), ISU   
05/2014 – 03/2015   
Co-Chair, “Alternative Methods to Study Classical Toxicants: A Mechanistic View” Symposium, SOT Annual Meeting, San Diego, CA   
08/2014 – 08/2015   
Senator, Biomedical Sciences, Graduate and Professional Student Senate (GPSS), ISU   
05/2014 – 05/2015   
Chair, Professional Development Committee, GSLC, SOT   
01/2015 – 04/2015   
Moderator and Organizer, “Securing a Job in Industry” Panel, GPSS Research Conference, Iowa State University, Ames, IA   
06/2014 – 04/2015   
Committee Member, GPSS Research Conference   
09/2015 – 05/2017   
Member, Biomedical Sciences Graduate Organization, ISU   
08/2015 – 08/2016   
President, TGSO, ISU   
10/2015 – 10/2016   
Student Member, Society of Toxicologic Pathology   
04/2016 – 04/2016   
Moderator, “Drafting a Research Statement” Workshop, GPSS Research Conference, Iowa State University, Ames, IA   
03/2017 – 03/2017   
Volunteer, Continuing Education Course, SOT   
  
Honors   
05/2009   
Certificate of Achievement for poster presentation, Posters in the Rotunda, Madison, WI   
05/2009   
Certificate of Achievement for oral presentation, Student Showcase, University of Wisconsin- Parkside, Kenosha, WI   
10/2012   
Outstanding Poster Presentation Award, Central States SOT, Kansas State University, Manhattan, KS   
03/2013   
Drug Discovery Specialty Section (SS) Emil A. Pfitzer Endowment Award, Second place graduate student poster award, SOT meeting, Phoenix, AZ   
08/2013   
Graduate student poster award, third place, Center for Veterinary Medicine Research Day, Iowa State University, Ames, IA   
10/2014   
Outstanding Poster Presentation Travel Award, Central States SOT, Kansas City, MO   
03/2015   
Drug Discovery Toxicology SS Emil A. Pfitzer Endowment Award, Second place   
graduate student poster award, SOT Annual Meeting, San Diego, CA   
03/2015   
Toxicologic and Exploratory Pathology (TEPSS) Society of Toxicologic Pathology (STP) Student Award, SOT Annual Meeting, San Diego, CA   
10/2015   
Outstanding Poster Presentation Travel Award, Central States Society of Toxicology (CSSOT), University of Kansas Medical Center, Kansas City, KS   
10/2015   
Young Investigator Award, second place poster in the STP, ACVP/ASVCP/STP Combined Annual Meeting, Minneapolis, MN   
03/2016   
Drug Discovery Toxicology SS Emil A. Pfitzer Endowment Award, Third place graduate student poster award, SOT Annual Meeting, San Diego, CA   
03/2016   
TEPSS Charles River Travel Award, SOT Annual Meeting, New Orleans, LA   
03/2016   
Stem Cells SS Excellence in Research Award, First place graduate student award, SOT Annual Meeting, New Orleans, LA   
03/2017   
Neurotoxicology Specialty Section (SS) Toshio Narahashi Graduate Student Poster Endowment Award, First place, SOT Annual Meeting, Baltimore, MD   
05/2017   
Research Excellence Award, Graduate College, Iowa State University   
C. Contribution to Science   
1. Since current therapies for neurodegenerative disease only target symptoms, we recently developed a new class of mitochondria-targeted antioxidants and screened natural compounds to effectively dampen the major pathophysiological processes associated with Parkinson’s disease (PD), mitochondrial dysfunction and oxidative stress. Our research studying the efficacy and mode of action of mito-apocynin in toxin-based and transgenic models of neurodegeneration resulted in a first-author publication, a co-authored publication, and three awards from conference presentations (Toxicologic and Exploratory Pathology (TEP)-Society of Toxicologic Pathology (STP) & Drug Discovery Toxicology (DDT)- Specialty Section (SS) Awards at SOT as well as a Second Place Young Investigator Award at STP. The properties of mito-apocynin identified in these models strongly support potential clinical applications for mito-apocynin as a viable neuroprotective and anti-neuroinflammatory drug for treating PD when compared to conventional therapeutic approaches. We also found that quercetin, a flavonoid, was protective in our transgenic model of dopaminergic mitochondrial dysfunction through activation of pro-survival kinases PKD1 and Akt, leading to a co-authored publication. Recently, we also published that EGCG, a major polyphenol in green tea, can protect against MPTP-induced functional and neurochemical deficits in mice by regulating iron-export protein ferroportin.   
a. Langley MR, Ghosh A, Charli A, Sarkar S, Ay M, Luo J, Zielonka J, Brenza T, Bennett B, Jin H, Ghaisas S, Schlichtmann B, Kim D, Anantharam V, Kanthasamy A, Narasimhan B, Kalyanaraman B, Kanthasamy AG. Mito-apocynin prevents mitochondrial dysfunction, microglial activation, oxidative damage and progressive neurodegeneration in MitoPark Transgenic mice. Antioxidants and Redox Signaling. 2017 Apr 4. doi: 10.1089/ars.2016.6905.   
b. Ghosh A, Langley MR, Harischandra D, Neal ML, Jin H, Anantharam V, Joseph J, Brenza T, Narasimhan B, Kanthasamy A, Kalyanaraman, and Kanthasamy AG(2016). Mitoapocynin Treatment Protects Against Neuroinflammation and Dopaminergic Neurodegeneration in a Preclinical Model of Parkinson’s Disease. Journal of Neuroimmune Pharmacology. 11(2):259-78.   
c. Ay M, Luo J, Langley M, Jin H, Anantharam V, Kanthasamy A, Kanthasamy AG. Molecular mechanisms underlying protective effects of quercetin against mitochondrial dysfunction and progressive dopaminergic neurodegeneration in cell culture and MitoPark transgenic mouse models of Parkinson's Disease. J Neurochem. 2017 Jun; 141(5):766-782.   
d. Xu Q, Langley M, Kanthasamy AG, and Reddy MB. Epigallocatechin Gallate Has a Neurorescue Effect in a Mouse Model of Parkinson Disease. Journal of Nutrition. Aug 23. doi: 10.3945/jn.117.255034.   
2. Our group has identified that a protein involved in olfactory bulb neurogenesis and circadian rhythms, Prokineticin 2 (PK2), plays a novel compensatory protective role in nigral dopaminergic neurodegeneration in PD, yet the exact mechanism of the neuroprotective response remains elusive. This collaborative project characterizing the neuroprotective role of a novel secreted protein, PK2, in dopaminergic neurons, resulted in a co-authored paper. We then hypothesized that PK2 rescues impaired neurogenesis in PD models by promoting differentiation, proliferation, or migration of neural stem cells in neurogenic brain regions. By extending this work to explore the role of PK2 in neural stem cells, I received three awards from the SOT (Stem Cells SS Excellence in Research, DDT-SS, and TEP-SS Charles River Travel Awards).   
a. Gordon R#, Neal ML #, Luo J, Langley MR, Jin H, Anantharam V, Zhou QY, Kanthasamy AG, and Kanthasamy A (2016). Prokineticin-2 upregulation during neuronal injury mediates a compensatory protective response against dopaminergic neuronal degeneration. Nature Communications.2016 Oct 5; 7: 12932.   
3. PD is now recognized as a neurodegenerative condition caused by a complex interplay of genetic and environmental influences. Chronic manganese (Mn) exposure has been implicated in the development of PD. Since mitochondrial dysfunction is associated with PD pathology as well as Mn neurotoxicity, we investigated whether Mn exposure augments mitochondrial dysfunction and neurodegeneration in the nigrostriatal dopaminergic system using a newly available mitochondrially defective transgenic mouse model of PD, the MitoPark mouse. I received the DDT-SS Endowment Award (2013) and the Central States SOT Outstanding Poster Award (2012) for demonstrating that chronic exposure to Mn accelerates the behavioral deficits and neurodegeneration present in the MitoPark mouse model.   
a. Langley MR, Ghosh A, Ghaisas S, Ay M, Luo J, Palanisamy BN, Kim D, Jin H, Anantharam V, Kanthasamy A, Kanthasamy AG. Manganese exposure exacerbates progressive motor deficits and neurodegeneration in the MitoPark mouse model of Parkinson’s disease: Relevance to gene and environment interactions in metal neurotoxicity. NeuroToxicology. 2017 Jun 19. pii: S0161-813X(17)30098-0.   
D. Additional Information: Research Support   
Travel support   
2017 Professional Advancement Grant from GPSS-ISU, for attending SOT Annual meeting   
2017 Toxicology interdepartmental funding, for attending SOT Annual meeting   
2017 Graduate Student Travel Award from SOT, for attending SOT Annual meeting   
2015 TEPSS STP Student Award, for attending STP Annual meeting   
2013 Professional Advancement Grant from GPSS-ISU, for attending SOT Annual meeting   
Research support   
03/2017   
Fellowship, Mayo Clinic Center for MS and Autoimmune Neurology

***Hyesook Yoon, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Haneui Kim, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Ian Lanza, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Aleksey Matveyenko, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Nathan LeBrasseur, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Isobel Scarisbrick, PhD***  
Mayo Clinic

*(no CV uploaded)*

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**Managing and experiencing severe neuropathic pain after SCI: a qualitative study**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Eva Widerstrom-Noga, DDS, PhD***  
The Miami Project to Cure Paralysis, University of Miami, Miller School of Medicine

**CV:**  
A. Personal Statement   
I am a Professor of Neurological Surgery, Rehabilitation Medicine, Health Scientist at the Veterans Affairs Medical Center, and the principal investigator of the Clinical Pain Research Laboratory of The Miami Project to Cure Paralysis. My background is in cross-disciplinary pain research (pain physiology and pain psychology) and in the clinical management of chronic pain. I have performed human pain research for more than 24 years and in the field of spinal cord injury (SCI) for over 20 years. I have adapted outcome measures used to classify and assess pain in other chronic pain populations to people with SCI. I have published 60 peer reviewed journal articles and written eight book chapters on pain and pain assessment. My present research involves both qualitative and quantitative pain methodologies including quantitative sensory testing and MR spectroscopic brain imaging. I have been instrumental in developing, presenting, and promoting the International SCI Pain Data Sets and the NINDS CDEs for SCI and Pain. I serve as the Chair or as a member in both National and International efforts to standardize pain outcome measures and pain classification, and clinical guidelines related to pain. I have extensive interdisciplinary clinical pain research experience in persons with neurotrauma, including the use of a wide spectrum of pain outcome measurements and pain phenotyping   
  
Positions and Employment   
1986-1990 Dentist (general dentistry). Kungälv, Sweden   
1987-1993 PhD-training, Department of Physiology, Faculty of Medicine, University of Gothenburg. Gothenburg, Sweden   
1990-1991 Dentist (Orofacial Pain, Department of Stomatognathic Physiology), Faculty of Dentistry, University of Gothenburg. Gothenburg, Sweden   
1993-1995 Chronic Pain Management, Biodex Therapy Center. Winnipeg, Canada   
1996-1999 Senior Research Associate, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
1999-2002 Instructor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
2002-2005 Research Assistant Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami School of Medicine. Miami, Florida   
2004- pres. Research Health Scientist, Research Service, Bruce W. Carter VA Medical Center. Miami, FL   
2005-2014 Research Associate Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami Miller School of Medicine. Miami, Florida   
2007-2014 Research Associate Professor in Rehabilitation Medicine, University of Miami Miller School of Medicine. Miami, Florida   
2007- pres. Graduate Faculty, Neuroscience Program, University of Miami Miller School of Medicine. Miami, Florida   
2007- pres. Scientific Awards Committee, University of Miami Miller School of Medicine. Miami, Florida   
10/08-09/09 Vice-Chair: Research & Development Committee, Bruce W. Carter VA Medical Center. Miami, Florida   
10/09-10/10 Chair: Research & Development Committee, Bruce W. Carter VA Medical Center, Miami, Florida   
07/10-06/13 Member: Medical School Faculty Council, University of Miami Miller School of Medicine. Miami, Florida   
10/10-09/12 Member: Research & Development Committee, Bruce W. Carter VA Medical Center. Miami, Florida   
2014- pres. Research Professor in Neurological Surgery, The Miami Project to Cure Paralysis, University of Miami Miller School of Medicine. Miami, Florida   
2014- pres. Research Professor in Rehabilitation Medicine, University of Miami Miller School of Medicine. Miami, Florida   
Other Experience and Professional Memberships   
1983-pres. Member International Association for the Study of Pain (IASP)   
1996-pres. Member American Pain Society (APS)   
1997-pres. Member American Paraplegia Society   
2001-pres. Member American Spinal Injury Association (ASIA)   
2003-pres. Member International Spinal Cord Injury Association   
2004-2008 Member American Pain Society Ethics committee   
2004-pres. Member American Spinal Injury Association Research Committee   
2005-pres. Chair International Pain Data Set subcommittee ISCoS/ASIA   
2007-pres. Member of Scientific Awards Committee, University of Miami, Miller School of Medicine   
2009-2012 Member International Taskforce on pain classification after SCI   
2013-pres. ACTTION-APS Pain Taxonomy (AAPT): Member research committee.   
2013-pres. ACTTION-APS Pain Taxonomy (AAPT): Co-chair subcommittee on central neuropathic pain   
2015-pres. NINDS SCI Data Sets Oversight Committee   
  
C. Contributions to Science   
My work primarily concerns the extremely complex problem of persistent neuropathic pain after neurotrauma. My primary interests are influenced by my clinical background and interest in elucidating the underlying mechanisms of human pain and the cognitions and behaviors that determine the impact of pain.   
1. Defining persistent pain after SCI: Much of this work was initiated to determine, in more detail than previous research, the characteristics, psychosocial impact and interference, and chronicity of pain after SCI. This work was the foundation for the development of national and international recommendations for pain evaluations after SCI (see Evaluating pain below)   
a. Widerström-Noga EG, Felipe-Cuervo E, Broton JG, Duncan RC, Yezierski RP. Perceived difficulty in dealing with consequences of spinal cord injury. Arch Phys Med Rehabil 80:580-6. 1999.   
b. Widerström-Noga EG, Felipe-Cuervo E, Yezierski RP. Chronic pain following spinal cord injury: Interference with sleep and activities. Arch Phys Med Rehabil 82:1571-7. 2001.   
c. Widerström-Noga EG, Turk DC. Types and effectiveness of treatments used by people with chronic pain associated with spinal cord injuries: Influence of pain and psychosocial characteristics. Spinal Cord 41 (11):600-609. 2003.   
d. Cruz-Almeida Y, Martinez-Arizala A, Widerström-Noga EG. Chronicity of pain associated with spinal cord injury: A longitudinal analysis. JRRD 42 (5): 585-94. 2005.   
2. Pain evaluation: I am the Chair of the International Spinal Cord Injury Pain Data Set committee, which is an international collaborative effort between the major pain and spinal cord injury (SCI) organizations. The goal of this committee is to facilitate collaborations and multicenter trials by developing standardized SCI pain evaluation algorithms that can be used worldwide. The first instrument “the Basic Pain Data Set” has been endorsed, translated into several languages, and incorporated into the NINDS Common Data Elements. Consistent evaluation of pain after SCI is critical to progress in this field by facilitating collaboration and comparable outcomes in across clinical centers and countries.   
a. Widerström-Noga EG, Cruz-Almeida Y, Martinez-Arizala A, Turk DC. Internal consistency, stability, and validity of the spinal cord injury version of the Multidimensional Pain Inventory. Arch Phys Med Rehabil 87:516-23. 2006.   
b. Widerström-Noga EG, Biering-Sørensen F, Bryce T, Cardenas DD, Finnerup NB, Jensen MP, Richards JS, Siddall P. The International Spinal Cord Injury Pain Basic Data Set. Spinal Cord 46 (12):818-23. 2008.   
c. Widerström-Noga EG, Biering-Sørensen F, Bryce T, Cardenas DD, Finnerup NB, Jensen MP, Richards JS, Siddall PJ. The International Spinal Cord Injury Pain Basic Data Set (version 2.0). Spinal Cord 52 (4):282-6. 2014.   
d. Biering-Sørensen F, Alai S, Anderson K, Charlifue S, Chen Y, DeVivo M, Flanders AE, Jones L, Kleitman N, Lans A, Noonan VK, Odenkirchen J, Steeves J, Tansey K, Widerström-Noga E, Jakeman LB. Common data elements for spinal cord injury clinical research: a National Institute for Neurological Disorders and Stroke project. Spinal Cord 53 (4):265-77. 2015.   
3. Pain Classification: I have been an integral part of the development of a valid and reliable spinal cord injury pain classification system. I am also a member of a major new initiative, initiated by Drs. Robert Dworkin, Dennis Turk, and Roger Fillingim, and co-sponsored by Analgesic, Anesthetic, and Addiction Clinical Trial Translations, Innovations, Opportunities, and Networks, and the American Pain Society. The intent is to develop a comprehensive taxonomy encompassing all acute and chronic pain conditions. At present, there is no consensus on pain classification, a major limitation that has impeded the development of improved pain treatments.   
a. Bryce TN, Biering-Sørensen F, Finnerup NB, Cardenas DD, Defrin R, Lundeberg T, Norrbrink C, Richards JS, Siddall P, Stripling T, Treede RD, Waxman SG, Widerström-Noga E, Yezierski RP, Dijkers M. International Spinal Cord Injury Pain Classification: part I. Background and description. Spinal Cord 50 (6):413-7. 2012.   
b. Bryce TN, Biering-Sørensen F, Finnerup NB, Cardenas DD, Defrin R, Ivan E, Lundeberg T, Norrbrink C, Richards JS, Siddall P, Stripling T, Treede RD, Waxman SG, Widerström-Noga E, Yezierski RP, Dijkers M. International Spinal Cord Injury Pain (ISCIP) Classification: Part 2. Initial validation using vignettes. Spinal Cord 50 (6):404-12. 2012   
c. Bruehl S, Ohrbach R, Sharma S, Widerstrom-Noga E, Dworkin RH, Fillingim RB, Turk DC. The ACTTION-American Pain Society Pain Taxonomy (AAPT): Approaches to Demonstrating the Reliability and Validity of Core Diagnostic Criteria. J of Pain 2016 Sep;17(9 Suppl):T118-31).   
d. Fillingim RB, Brueh Sl, Dworkin RH, Dworkin SF, Loeser JD, Turk DC, Widerström-Noga E, et al. The ACTTION-American Pain Society Pain Taxonomy (AAPT): An Evidence-Based and Multi-Dimensional Approach to Classifying Chronic Pain Conditions. J Pain 15 (3):241-9. 2014   
4. Sensory pain phenotypes: Quantitative Sensory Testing (QST) is a very important method used to investigate underlying mechanisms of pain in neuropathic pain research. My colleagues and I have demonstrated that QST is both valid and reliable after spinal cord injury (SCI). Furthermore, we have shown that injury to both the spinothalamic tract and the dorsal column is predictive of the development of neuropathic pain after SCI. We have just completed another study, the largest of its kind, testing the utility of QST to define clinical neuropathic pain phenotypes or subgroups after SCI. The results suggest at least two clinical pain phenotypes with varying degrees of gain and loss of sensory function. Since such clinical pain phenotypes may reflect underlying mechanisms of pain, identification of specific phenotypes based on QST can serve to differentiate subgroups in responder analyses in clinical trials.   
a. Felix ER, Widerström-Noga EG. Reliability and validity of quantitative sensory testing in persons with spinal cord injury and chronic neuropathic pain. JRRD 46 (1):69-84. 2009.   
b. Cruz-Almeida Y, Felix ER, Martinez-Arizala A, Widerström-Noga EG. Decreased spinothalamic and dorsal column medial lemniscus-mediated function is associated with neuropathic pain after spinal cord injury. J Neurotrauma 29 (17):2706-15. 2012   
c. Widerström-Noga EG, Felix ER, Adcock JP, Escalona M, Tibbett J. Multidimensional neuropathic pain phenotypes after spinal cord injury. J of Neurotrauma. 2016;33(5):482-92.   
5. Brain biomarkers of Pain: My colleagues and I have recently published research involving magnetic resonance spectroscopy of the brain in persons with central neuropathic pain and SCI or traumatic brain injuries. Our data suggest that biomarkers related to glutamatergic metabolism and glial activation are associated with severe neuropathic pain as well as a specific sensory phenotype with residual spinothalamic function. These findings are consistent with our previous data from the thalamus showing that pain and severity of pain after SCI are associated both with glial activation and neuronal dysfunction.   
a. Widerström-Noga EG, Pattany P, Cruz-Almeida Y, Felix ER, Perez S, Cardenas DD, Martinez-Arizala A. Association between metabolite concentrations in the anterior cingulate cortex and high neuropathic pain impact after spinal cord injury. Pain 54 (2):204-212. 2013.   
b. Widerström-Noga EG, Cruz-Almeida Y, Felix ER, Pattany PM. Somatosensory phenotype is associated with thalamic metabolites and pain intensity after spinal cord injury. Pain 156:166-174. 2015.   
c. Widerström-Noga E, Govind V, Adcock J, Levine B, Maudsley AA. Subacute pain after TBI is associated with lower insular N-acetylaspartate concentrations. J of Neurotrauma 2016:15;33(14):1380-9.   
d. Pattany PM, Yezierski RP, Widerström-Noga EG, Bowen BC, Martinez-Arizala A, Garcia BR, Quencer RM. Proton magnetic resonance spectroscopy of the thalamus in patients with chronic neuropathic pain after spinal cord injury. Am J Neuroradiol 23;901-5. 2002.   
List of Published Work (peer reviewed articles 53 out of 60)   
https://www.ncbi.nlm.nih.gov/pubmed/?term=widerstrom-noga   
Research Support (past 3 years)   
Ongoing Research Support   
MR141214 (DoD) Widerström-Noga (PI) 4/15/2016—3/31/2019   
Utility of MRS Brain Biomarkers of Pain Phenotypes after TBI   
The aims of this project will determine the ability of whole brain Magnetic Resonance Spectroscopy (MRS) and Diffusion Kurtosis Imaging (DKI) measures in brain areas involved in the processing and modulation of pain (thalamus, insula, cingulate, prefrontal cortex, and hippocampus) to predict: (1) Chronic pain after TBI; and (2) Pain symptom, somatosensory and psychological pain phenotypes. The specific measures include: 1) For MRS: N-acetylaspartate (NAA; an indicator of neuronal dysfunction or loss), myo-inositol (Ins; an indicator of glial activation or proliferation), and a composite of glutamate and glutamine (Glx; an indicator of glutamatergic function; and 2) For DKI: mean diffusivity (MD), fractional anisotropy (FA), mean kurtosis (MK), radial kurtosis (RK), and axial kurtosis (AK).   
Role: PI   
90DP0074 (NIDILRR) Nash (PI) 09/30/2015—08/31/2019   
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment.   
This project will study lifestyle interventions (LI) in persons with spinal cord injuries and diseases. Project goals include: (1) testing the impact of a model LI program on attributes of health and function that are recognized to compromise healthy aging in persons with SCI living in caregiver/care-receiver relationships, (2) examining the impact of the LI on the relationship of the caregiver/care-receiver dyad, and (3) determining whether co-intervention with the caregiver improves health/function for their partner.   
Role: Co-Investigator   
90IF0099 (NIDILRR) Taylor (PI) 09/30/2015—09/29/2018   
The Relations among Pain, Depression, and Resilience and their Prediction of Life Satisfaction in Men and Women with Spinal Cord Injury   
This project identifies and evaluates relations among pain, depression, and resilience and the extent to which they predict life satisfaction in men and women with chronic pain secondary to spinal cord Injury (SCI).   
Role: Co-Investigator   
  
  
  
SC140052 (DoD) Widerström-Noga (PI) 09/15/2015—09/14/2018   
Perspectives on Management of Severe Neuropathic Pain after Spinal Cord Injury   
The long-term goal of this study is to overcome barriers to the management of severe SCI-related chronic pain. The primary purpose being to identify barriers to optimal pain management based on the perspectives and beliefs of individuals with SCI, their significant others, and healthcare providers, and to identify the primary ways to overcome these barriers and develop an educational tool to disseminate this information to the SCI community.   
Role: PI   
R01 HD079009-01 (NICHD) Field-Fote (PI) 08/01/2014—07/31/2019   
Dose-Response Effects of Whole Body Vibration on Spasticity and Walking in SCI   
The goal of this project is to assess the effects various doses of whole body vibration on spasticity, walking function, pain, and strength in persons with SCI.   
Role: Co-Investigator   
NIDILRR South Florida SCI Model System Felix (PI) 09/01/2016-08/31/21   
Randomized, double-blinded, controlled trial of early-intervention TENS for the reduction of the prevalence and severity of chronic neuropathic pain during the first year after spinal cord injury.   
Role: Co-Investigator

***Kimberly Anderson, PhD***  
The Miami Project to Cure Paralysis, University of Miami, Miller School of Medicine

*(no CV uploaded)*

***Jessica Cambridge, MPH***  
The Miami Project to Cure Paralysis, University of Miami, Miller School of Medicine

*(no CV uploaded)*

***Salome Perez, PhD***  
Miami Veterans Administration Health Care System

*(no CV uploaded)*

***Alberto Martinez-Arizala, MD***  
Miami Veterans Administration Health Care System

*(no CV uploaded)*

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**Six Months of Intensive Lifestyle Intervention Lessens Cardiometabolic Component Risks in Persons with SCI and their Caregivers: A Two Dyad Case Study**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Mark Nash, PhD***  
University of Miami Miller School of Medicine

**CV:**  
A. Personal Statement   
My 33 years in academic medicine have focused on evidence-based approaches to identify and then intervene on all-cause vascular disorders and cardiometabolic hazards for persons with spinal cord injury and disease (SCI/D). Findings from my federal and foundation grants have yielded more than 110 peer-review publications in both human and pre-clinical animal research that are widely cited, and whose evidence-based recommendations have been translated into health-centered lifestyle intervention programs for persons with disabilities. I have served as PI for most of these studies - including multi-center randomized controlled trials (RCT) - and am thus familiar with all aspects of their operation spanning conception, planning, teambuilding and execution, data analysis, dissemination of trial findings via oral and peer-review written communications, and then translation for stakeholder benefit.   
  
The lineage of my work emphasizes a systematic lifestyle approach for cardiometabolic disease abatement in persons with SCI. My past work has focused on first defining these risks, and then testing key interventions for risk reduction through exercise, nutrition, behavior, and pharmacotherapy. The U.S. Department of Defense has funded my laboratory to harmonize exercise, nutrition, and behavioral interventions from the NIH-sponsored Diabetes Prevention Program for persons living with chronic SCI, and a recent award from NIDILRR will expand our multi-center trial work to focus on lifestyle interventions for dyadic partners as caregivers of persons with SCI/D with their care-receivers. As I currently serve as Chair of the Paralyzed Veterans Association Consortium for Spinal Cord Medicine Guideline Panel on Cardioendocrine Disease I am charged with leading a panel of expert clinicians and scientists to develop evidence-based clinical practice guidelines for cardiometabolic diseases in persons with SCI/D. I am thus uniquely positioned to pursue incorporation of these trial findings into practice patterns that rely on ‘best medicine’.   
  
Nash, M.S., R.E. Tractenberg, A.J. Mendez, M. David, I.H. Ljungberg, E.A. Tinsley, P.A. Burns-Drecq, L.F. Betancourt, S.L. Groah, MD. Conceptualizing Cardiometabolic Syndrome after Spinal Cord Injury/Disease: Archetypical and Alternative Risk Components in a Pooled Sample. Arch Phys Med Rehabil July 2016 dx.doi.org/10.1016/j.apmr.2016.07.002 . PMID: 27465752   
  
Nash, M.S., J.E. Lewis, T.A. Dyson-Hudson, Y. Szlachcic, F. Yee, A.J. Mendez, A.M. Spungen, and W.A. Bauman. Safety, Tolerance, and Effectiveness of Extended-Release Niacin Monotherapy for Treating Dyslipidemia Risks in Persons with Chronic Tetraplegia: A Randomized Multi-Center Controlled Trial. Arch Phys Med Rehabil 92(3):399-410, 2011. PMID: 21276961   
  
Nash, M.S., P.L. Jacobs, A.J. Mendez, and R.M. Goldberg. Circuit Resistance Training Improves the Atherogenic Blood Lipid Profiles of Persons with Chronic Paraplegia. J Spinal Cord Med 24(1):2-9, 2001. PMID:11587430   
  
B. Positions and Honors   
1984-present Instructor (Faculty) (September 1984-April 1989)   
+ PHS 398/2590 (Rev. 05/01) Biographical Sketch Format Page +   
Adjunct Assistant Professor (May 1989-February 1996) Assistant Professor [Tenure Track] (February 1996-June 2002) Associate Professor [With Award of Tenure] (June 2002-May 2009) Professor (June 2009)   
Graduate Faculty (1984-present)   
University of Miami Miller School of Medicine, Miami, Florida   
Faculty Appointments Neurological Surgery (1984-present)   
Physical Medicine & Rehabilitation (1996-present)   
Physical Therapy (1989-2010, 2014-present)   
Kinesiology & Sports Sciences (1984-present)   
1986-present Principal Investigator and Director   
Applied Physiology Research Laboratory, the Miami Project to Cure   
Paralysis University of Miami Miller School of Medicine, Miami, Florida   
2007-present Director of Research, Department of Rehabilitation Medicine University of Miami Miller School of Medicine, Miami, Florida   
1996-present Co-Director and Co-PI, South Florida Regional Spinal Cord Injury System\*, (Re-awarded by NIDILRR Department of Physical Medicine & Rehabilitation   
For 2016-2021\*) University of Miami Miller School of Medicine, Miami, Florida   
〈 Fellow, American College of Sports Medicine (FACSM), 1995   
〈 Co-Recipient (with R.S. Gailey, Ph.D.): International Forscheimer Prize in Prosthetics Research, 1995.   
〈 David F. Apple M.D. Award, American Spinal Injury Association, 2012.   
〈 Outstanding Conference Oral Paper Awards:   
〈 Annual Scientific Meeting of the American Spinal Injury Association (ASIA)   
〈 Award Nominations: 2005, 2008, 2010, 2013; 1st, 2005 and 2010, 2nd, 2013   
〈 Annual Scientific Meeting of the International Spinal Cord Society (ISCoS), 2nd (2014)   
〈 Veterans Administration Rehabilitation Research and Development (RR&D) Merit Grant Review:   
〈 Neurological Dysfunction and Spinal Cord Injuries: Restoration Rehabilitation, 1994-2005   
〈 Geriatric Rehabilitation/Rehabilitation Health Services and Outcomes, 1999-2002   
〈 Neurology, 2002-2003   
〈 Scientific Program (SPIRE) Grants, 2013   
〈 Department of Veterans Affairs, Office of Academic Affiliations: Pre-Doctoral Associated Health Rehabilitation Research Fellowship Program, 2001   
〈 National Institute for Disability and Rehabilitation Research, Department of Education: Field-initiated Standing Panel (Health and Function), Term Appointments; 2005-2008, 2009-2012, 2013-2016   
〈 National Institutes of Health, Center for Scientific Review: Special Emphasis Panel on Disabilities, 2006   
〈 Centers for Disease Control and Prevention: Special Emphasis Panel on the Health and Wellness of People with Disabilities, 2006   
〈 National Institute for Disability and Rehabilitation Research, Department of Education: Panel on Evaluation of Rehabilitation Engineering Research Centers, 2007, 2012   
〈 Rehabilitation Subcommittee, Research Advisory Board (RAB), Shriners Children's Hospitals International, 2005-present   
〈 National Institute for Disability and Rehabilitation Research, Department of Education: Fellowship Awards Panel, 2010   
〈 Chair, Carbohydrate and Lipid Clinical Guideline Development Panel, Consortium for Spinal Cord Medicine, Paralyzed Veterans Association of America; 2011-present   
〈 Research and Awards Committee, American Spinal Injury Association   
〈 Member, May 2011-April 2014; Vice-Chair May 2014-April 2015; Chair, April 2015-present   
〈 Member: Stoke Mandeville-Masson Research Advisory Panel, 2014-present   
〈 Chair, SCI Extended Data Set Panel on Voluntary Exercise, NINDS/ISCoS 2015-present   
+ PHS 398/2590 (Rev. 05/01) Biographical Sketch Format Page +   
  
C. Contributions to Science   
I describe three representative areas of contributions to science that are derived from my 110 peer-reviewed manuscripts, 22 peer-review research monographs and book chapters, and one edited textbook. These contributions emphasize my work in: 1. Defining health hazards associated with cardiometabolic disease, 2. testing of interventions that lessen these risks, and 3. creating evidence-based expert opinions that guide practice patterns for health care professionals.   
1. My colleagues and I have extensively examined the hazards of cardioendocrine disease and its component risk in persons with SCI. These studies have defined both the prevalence of the problem as well as the specific nature of the cardioendocrine risk. Two of these studies were the first to identify postprandial lipemia as a silent cardioendocrine risks after SCI, and to focus on excessive proatherogenic cytokine activity as possible progenitors of early vascular damage. Results from these studies lead to a grant award to pursue animal research in my lab that is examining an overweight body habitus in mice with a double mutation at the ApoE gene, and how an overweight body habitus in mice with experimental SCI accelerates dysglycemia and atherogenic lesions.   
  
Nash, M.S., R.E. Tractenberg, A.J. Mendez, M. David, I.H. Ljungberg, E.A. Tinsley, P.A. Burns-Drecq, L.F. Betancourt, S.L. Groah, MD. Conceptualizing Cardiometabolic Syndrome after Spinal Cord Injury/Disease: Archetypical and Alternative Risk Components in a Pooled Sample. Arch Phys Med Rehabil 97(10):1696-1705, 2016. PMID:27465752   
  
Ellenbroek, D., J. Kressler, R.E. Cowan, P.A. Burns, A.J. Mendez, A.E. Palermo, and M.S. Nash. Effects of   
Prandial Challenge on Triglyceridemia, Glycemia, and Pro-inflammatory Activity in Persons with Chronic Paraplegia. J Spinal Cord Med 38(4):468-75, 2015. PMID: 24617559   
  
Gilbert, O., J.R. Croffoot, A.J. Taylor, M.S. Nash, S.L. Groah, and K. Schomer, M.A. Serum Lipid Concentrations Among Persons with Spinal Cord Injury: A Systematic Review and Meta-Analysis of the Literature. Atherosclerosis 232:305-12, 2014. PMID: 24468143   
  
Groah, S.L., M.S. Nash, E.A. Ward, A. Libin, A.J. Mendez, P.A. Burns, M. Elrod, and L.F. Hamm. Cardiometabolic Risk Clustering in Spinal Cord Injury: Results of Exploratory Factor Analysis. J Cardiopulm Rehabil Prev 31(2):73–80, 2012. PMID: 23960702   
  
Nash, M.S. and A.J. Mendez. A Guideline-Driven Assessment of Need for Cardiovascular Disease Risk Intervention in Persons with Chronic Paraplegia. Arch Phys Med Rehabil 88:751-7, 2007. PMID: 17532897   
  
2. We have extensively studied the effects of exercise on fitness, and provide the first evidence for the superiority of circuit resistance training as an intervention mode for cardioendocrine risk lessening. The American Physical Therapy Association has recommended this approach as the model for exercise conditioning after SCI, which is based on our grant and published works. We have extended this work to successful testing of older individuals with SCI, to individuals with chronic tetraplegia, and the first study to test post-exercise nutritional supplementation as a tool for enhancing exercise performance.   
  
Kressler, J., Jacobs, K., Burns, P., Betancourt, L., and Nash, M.S. Effects of Circuit Resistance Training and   
Timely Protein Supplementation on Exercise-Induced Fat Oxidation in Tetraplegic Adults. Top Spinal Cord Inj Rehabil 20(2):113-22, 2014. PMID: 25477733   
  
Kressler, J., Burns, P.A., Betancourt, L., and Nash, M.S. Circuit Training and Protein Supplementation in Persons with Chronic Tetraplegia. Med Sci Sports Exerc 46(7):1277-84, 2014. PMID: 24389521   
  
Nash, M.S., I.van de Yen, N. van Elk, M.S. and B.M. Johnson. Effects of Circuit Resistance Training on Fitness Attributes and Upper Extremity Pain in Middle-Aged Men with Paraplegia. Arch Phys Med Rehabil 88(1):70-5, 2007. PMID: 17207678   
  
Nash, M.S., P.L. Jacobs, A.J. Mendez, and R.M. Goldberg. Circuit Resistance Training Improves the Atherogenic Blood Lipid Profiles of Persons with Chronic Paraplegia. J Spinal Cord Med 24(1):2-9, 2001. PMID: 11587430   
  
Jacobs, P.L., M.S. Nash, and J.W. Rusinowski. Circuit Resistance Training Provides Cardiorespiratory and Strength Benefits in Persons with Paraplegia. Med Sci Sports Exerc 33(5):711-7, 2001. PMID: 11323537   
  
3. Our collective works and evidence-based opinions have led to invited peer-review research monographs that have provided normed data evidence-based health recommendations for exercise, nutrition and behavioral intervention for persons with SCI.   
  
Nash, M.S. and J. Kressler. Model Programs to Address Obesity and Cardiometabolic Disease: Interventions for Suboptimal Nutrition and Sedentary Lifestyles Arch Phys Med Rehabil (2016), doi:10.1016/j.apmr.2016.05. PMID: 27422346   
  
Simmons, O.L., J. Kressler, and M.S. Nash. Reference Fitness Values in the Untrained Spinal Cord Injury Population. Arch Phys Med Rehabil DOI: 10.1016/j.apmr.2014.06.015. PMID: 25007709   
  
Nash, M.S., R.E. Cowan, and J. Kressler. Evidence-based and Heuristic Approaches for Customization of Care in Cardiometabolic Syndrome after SCI. J Spinal Cord Med 35(5):278-92, 2012. PMID: 23031165 PMCID: PMC3459557   
  
Cowan, R.E., L.A. Malone, and M.S. Nash. EXERCISE is Medicine©: Exercise Prescription after SCI to Manage CVD Risk Factors. Top Spinal Cord Inj Rehabil 14(3):69-83, 2009.   
doi:10.1310/sci1403-69   
  
Dyson-Hudson, T. and M.S. Nash. Guideline-Driven Assessment of Cardiovascular Disease and Related Risks after SCI. Top Spinal Cord Inj Rehabil 14(3):32-45, 2009. doi: 10.1310/sci1403-32   
  
D. Research Support: Selected Ongoing Research Support   
  
W81XWH-13-1-0479 (Shafazand) 10//1/2013 - 9/30/2017   
U.S. Department of Defense – SCIRP   
Neuro-cognitive Decline and Sleep-Disordered Breathing after SCI   
The major goal of the project is to examine the relationship between cognitive function and Sleep-Disordered Breathing in persons with chronic SCIRole: Co-PI   
  
340428 (Nash, PI) Craig H. Neilson Foundation 10/1/2015 - 9/30/2017   
A Time-Course Study of Experimental Cardiometabolic Risk/Disease after SCI   
The goal of the project is to examine in an ApoE knockout mouse model whether SCI accelerates early aortic atherosclerotic plaque formation; modifies expression of aortic genes that contribute to the development of atherosclerosis; induces inflammasome formation as a marker of systemic inflammatory stress; and alters lipid and lipoprotein levels to a more atherogenic phenotype.   
90DP0074-01-00 (Nash, PI) DHHS/NIDILRR 10/2015 - 9/2020   
  
A Lifestyle Intervention Targeting Enhanced Health and Function for Persons with Chronic SCI in Caregiver/Care-Receiver Relationships: Effects of Caregiver Co-Treatment   
The project goals are to test: a) the impact of a model SCI lifestyle intervention (LI) program on attributes of health and function that are recognized to compromise their healthy aging in persons with SCI living in caregiver/care-receiver relationships, b) examine the impact of the LI on the relationship of the caregiver/care-receiver dyad, and c) determine whether co-intervention with the caregiver improves health/function outcomes for their partner.   
  
90SI5023-01-00 (Felix) DHHS/NIDILRR 10/2016 – 9/2021   
South Florida Regional Model Spinal Cord Injury (SCI) System   
The goals of the project are to collect data on acutely injured persons with SCI and follow their progress   
through annual re-assessment, perform site-specific research that reduces the risk of upper limb dysfunction,   
and collaborate on multi-site research that reduces secondary complications of SCI.   
Role: Co-PI and Co-Director

***Luisa Betancourt, MD, MS***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Gregory Bigford, Ph.D.***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Jennifer Maher, Ph.D.***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Musto Anthony, Ph.D.***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Armando Mendez, Ph.D.***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

**106**

**Comparison of shoulder joint motion and kinetics during fast and inclined reverse and conventional manual wheelchair propulsion in persons with paraplegia**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Lisa Lighthall Haubert, MPT, KEMG***  
Rancho Los Amigos National Rehabilitation Center, Pathokinesiology Laboratory

**CV:**  
Lisa Lighthall Haubert   
  
PROFESSIONAL EXPERIENCE   
  
Research Physical Therapist and Kinesiologic Electromyographer (2001 – present)   
Pathokinesiology Laboratory, Rancho Los Amigos National Rehabilitation Center, Downey, CA   
  
Adjunct Clinical Faculty, Clinical Neurology (2000 – 2002)   
USC, Department of Biokinesiology and Physical Therapy, Los Angeles, CA   
  
Research Physical Therapist (Intervention), EXCITE TRIAL: RCT investigating efficacy of CI Therapy in stroke (2000 – 2001)   
USC, Department of Biokinesiology and Physical Therapy, Los Angeles, CA   
  
Physical Therapist I & II (1999 – 2001): Outpatient Service, Arthritis Service   
Rancho Los Amigos National Rehabilitation Center, Downey, CA   
  
Instructor: Concepts in (McConnell) Shoulder Taping (2000)   
Rancho Los Amigos National Rehabilitation Center, Downey, CA   
  
Physical Therapist (Supervisor in owner’s absence) (1997-1999): Outpatient Orthopedics   
Campus Commons Physical Therapy, Sacramento, CA   
  
Physical Therapist (Supervisor in manager’s absence) (1996-1997): Work Conditioning & Work   
Hardening   
Results Physical Rehabilitation, Sacramento, CA   
  
Physical Therapist (Per Diem) (1996-1997): Acute Orthopedics, Neurology, Medicine, ICU & Cardiac   
Mercy San Juan Hospital, Sacramento, CA   
  
  
PROFESSIONAL LICENSES AND AFFILIATIONS:   
  
-Physical Therapist (Physical Therapy Board of California) License # PT 22128 (1996-Present)   
-Kinesiological Electromyographer (Physical Therapy Board of California) # EK 44 (2005-Present)   
-American Physical Therapy Association, member #130846 (1995 to present)   
-California Chapter American Physical Therapy Association (195-Present)   
- -Manuscript Reviewer for Archives of Physical Medicine and Rehabilitation (2011-present)   
-Manuscript Reviewer for Rehabilitation Research and Development (2011-present)   
-American Spinal Injury Association Member (2012-present)   
-Gait and Clinical Movement Analysis Society Member (2013- present)   
-Manuscript Reviewer for Biomedical Research International (2014)   
-Manuscript Reviewer for Frontiers in Bioengineering and Biotechnology (2015)   
  
  
PUBLICATIONS/PRESENTATIONS   
  
Haubert LL, Requejo PS, Mulroy SJ, Maneekobkunwong S, Rodriguez D, Gronley JK. Comparison of temporal spatial characteristics and shoulder kinematics and kinetics during reverse and conventional manual wheelchair propulsion in persons with paraplegia. Proceedings of the Gait Clinical Movement Analysis Society Annual Meeting: 2017 May 23-26; Salt Lake City, UT.   
  
Haubert LL, Requejo PS, Mulroy SJ, Maneekobkunwong S, Rodriguez D, Gronley JK. Comparison of temporal spatial characteristics and shoulder kinematics and kinetics during reverse and conventional manual wheelchair propulsion in persons with paraplegia. Proceedings of the American Spinal Injury Association Annual 43rd Scientific Meeting: Top Spinal Cord Inj Rehabil; 2017 April 26-29; Albuquerque, NM, 82 p.   
  
Haubert LL, Mulroy SJ, Requejo PS, Hatchett PE. Evidence-based car transfer techniques to preserve shoulder joint health and participation in individuals with paraplegia. Proceedings of the American Spinal Injury Association Annual 42rd Scientific Meeting: Top Spinal Cord Inj Rehabil; 2016 April 14-16; Philadelphia, PA; 3 p.   
  
Mulroy SJ, Hatchett PE, Eberly VJ, Haubert LL, Gronley JK, Conners S, Garshick E, Requejo PS. Objective and self-reported physical activity measures and their association with depression and satisfaction with life in persons with spinal cord injury. Arch Phys Med Rehabil. 2016 Oct;97(10):1714-20.   
  
Hatchett PE, Mulroy SJ, Eberly VJ, Haubert LL, Requejo PS. Body mass index changes over 3 years and effect of obesity on community mobility for persons with chronic spinal cord injury. J Spinal Cord Med. 2016 Jul;39(4):421-32.   
  
Haubert LL, Requejo PS, Mulroy SJ. Comparison of shoulder joint kinematics and muscle activity during car transfer into a sedan and SUV height vehicle in persons with paraplegia. Proceedings of the International Spinal Cord Society and American Spinal Injury Association Scientific Meeting: 2015, May 14-16, Montreal Canada.   
  
Haubert LL, Mulroy SJ, Hatchett PE, Eberly VJ, Maneekobkunwong S, Gronley JK, Requejo PS. Car Transfer and Wheelchair Loading Techniques in Independent Drivers with Paraplegia. Frontiers Bioeng Biotech. Sep 2015 17;3:139. doi: 10.3389/fbioe.2015.00139. eCollection 2015.   
  
Mulroy SJ, Hatchett P, Eberly VJ, Lighthall Haubert L, Conners S, Requejo PS. Shoulder Strength and Physical Activity Predictors of Shoulder Pain in People With Paraplegia From Spinal Injury: Prospective Cohort Study. Phys Ther. 2015; Jul; 95:1027-1038.   
  
Requejo PS, Mulroy SJ, Ruparel P, Hatchett PE, Haubert LL, Eberly VJ, Gronley JK.   
Relationship Between Hand Contact Angle and Shoulder Loading During Manual Wheelchair Propulsion by Individuals with Paraplegia. Top Spinal Cord Inj Rehabil. 2015 Fall;21(4):313-24.   
  
Haubert LL, Mulroy SJ, Requejo PS. Factors influencing car transfer performance in persons with paraplegia. Proceedings of the American Spinal Injury Association Annual 40th Scientific Meeting Proceedings: Top Spinal Cord Inj Rehabil; 2013 May 6-8, Chicago, IL, 6 p.

***Philip Requejo, PhD***  
Rancho Los Amigos National Rehabilitation Center, Pathokinesiology Laboratory

*(no CV uploaded)*

***Sara Mulroy,***   
Rancho Los Amigos National Rehabilitation Center, Pathokinesiology Laboratory

*(no CV uploaded)*

***Somboon Maneekobkunwong, MSME***  
Rancho Los Amigos National Rehabilitation Center, Pathokinesiology Laboratory

*(no CV uploaded)*

***Diego Rodriguez, BS***  
Rancho Los Amigos National Rehabilitation Center, Pathokinesiology Laboratory

*(no CV uploaded)*

***JoAnne Gronely, DPT***  
Rancho Los Amigos National Rehabilitation Center

*(no CV uploaded)*

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**Early opportunities to improve chronic functional outcome following traumatic spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Andréane Richard-Denis, MD, MSc***  
Hôpital Du Sacré-Coeur De Montréal

**CV:**  
Biographical Sketch   
  
Andréane Richard-Denis, MD, MSc.   
  
Position title: Clinician-researcher (scientist), Sacre-Coeur hospital research center; Physiatrist (specialized in spinal cord injury rehabilitation) and chief of the physical medicine and rehabilitation service at Sacre-Coeur hospital; Assistant professor University of Montreal, Quebec, Canada.   
  
A. Personal Statement   
1. Dr Richard-Denis focuss her work on the influence of acute cate of the functional outcome following traumatic spinal cord injury (TSCI), and she is strategically positionned accordingly. Indeed, Dr Richard-Denis is a physiatrist specialized in spinal cord injury (SCI) rehabilitation currently working in the only specialized acute care center for the western part of Quebec. The Sacre-Coeur Hospital receive more than 100 subjects with acute SCI per year. She maintains a close collaboration with their affiliated functional rehabilitation center, as well as with the spinal surgery team with whom she works in research (JM Mac-Thiong MD, PhD). She devotes three days per week to research, 1 day as a consultant-physiatrist in her acute care center, and one day per week to a new multidisciplinary SCI outpatient clinic that she set up to improve patient care and research follow-up. She joined the spinal trauma research team in 2013 and has since maintained a good productivity. Her position is ideal towards the fullfilment of her research projects, knowledge transfer, application of results and modification of clinical practices resulting from her work.   
2. Dr. Richard-Denis has developed a unique expertise on the impact of acute care centers specialized in SCI care. She and her team have suggested their importance on the costs and duration of acute care hospitalization (Richard-Denis et al., Am J Phys Med Rehab 2016); on the occurrence of medical complications (Richard-Denis et al., JSCM 2017) (Richard-Denis et al. Am J PMR 2015) as well as on the duration of mechanical ventilation and tracheostomy placement (Richard-Denis et al. Spinal Cord 2017).   
3. Dr. Richard-Denis has also a unique expertise on the influence of acute hospitalization on the global functional recovery following SCI. She has proposed a new conceptual framework in a systematic review of the literature that demonstrate how factors related to the acute care hospitalization interacts with the functional recovery (Richard-Denis et al. J Neurotrauma 2017) (Richard-Denis et al. JSCM 2016). Dr Richard-Denis orients her research work towards these objectives.   
  
She recently obtained her first research grant for a government institition (Fonds de recherche santé du Québec) for her work regarding the importance of the acute rehabilitation process on the chonic functional outcome.

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**A Case Report on an Adolescent with Transverse Myelitis and Suspected Conversion Disorder**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Kimberly Scharff, PT, DPT, PCS***  
Shriners Hospitals for Children - Philadelphia

**CV:**  
Current Employment   
Shriners Hospitals for Children-Philadelphia   
Physical Therapist (December 2007 to present)   
  
Harcum College PTA Program, Bryn Mawr, PA   
Guest Lecturer, Pediatrics Modules, 2008-present   
  
Licensures & Certifications   
Licensed Physical Therapist, Commonwealth of Pennsylvania, South Carolina   
APTA Pediatric Clinical Specialist (2012)   
Certified Child Passenger Safety Technician, 2009-present   
APTA Advanced Credentialed Clinical Instructor   
  
Education   
Drexel University, Philadelphia, PA   
Doctorate of Physical Therapy, May 2006   
  
Cabrini College, Radnor, PA   
Master of Education, August 2000   
  
Villanova University, Villanova, PA   
Bachelor of Science in Biology, May 1996   
  
Publication   
Johnson DR, Scharff KA. Spinal Cord Injury. In: Pelletier E (ed), Jobst EE (Series ed). Physical Therapy Case Files: Pediatrics. New York, NY: McGraw-Hill, anticipated publication 2015.

***Bethany Lipa, MD***  
Shriners Hospitals for Children - Philadelphia

*(no CV uploaded)*

***Heather Russell, Ph.D.***  
Shriners Hospitals for Children - Philadelphia

*(no CV uploaded)*

**109**

**The impact of metabolic risk factors on FIM efficiency during acute rehabilitation: a retrospective study of traumatic spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Andrew Kleven, DPT***  
Mayo Clinic Department of Physical Medicine and Rehabilitation

**CV:**  
The impact of metabolic risk factors on FIM efficiency: a retrospective study of traumatic spinal cord injury, American Spinal Injury Association 2018 Annual Scientific Meeting, Rochester, MN (Abstract, May 2018)   
  
Metabolic dysfunction exacerbates astrogliosis and impairs motor recovery after experimental spinal cord injury, American Spinal Injury Association 2018 Annual Scientific Meeting, Rochester, MN (Abstract, May 2018)   
  
Exercise training and dietary fat modulate myelinogenesis in the adult spinal cord, American Congress of Rehabilitation Medicine, Chicago, IL (Poster, October 2016)   
  
Evaluating Physical Therapist Students’ Clinical Performance in Acute Care: A Retrospective Analysis Comparing Student-Treated and Staff-Treated Patient Outcomes After Total Hip Arthroplasty, Minnesota American Physical Therapy Association Annual Conference, St. Paul, MN (Abstract, April 2016)   
  
Aerobic Exercise and Dietary Fat Impact Myelin in the Adult Spinal Cord, Combined Sections Meeting, Anaheim, CA (Poster, February 2016)   
  
Interplay between exercise and dietary fat modulates myelinogenesis in the central nervous system, BBA – Molecular Basis of Disease (Paper, January 2016)   
  
Exercise training and dietary fatty acids modulate myelinogenesis in the adult spinal cord, Society for Neuroscience (Abstract, October 2015)   
  
Interactions between Exercise Training and Dietary Fat Modulate Myelinogenesis in the Adult Spinal Cord, Regenerative   
Rehabilitation Symposium, Mayo Clinic, Rochester, MN (Presentation, September 2015)

***Kurt Hoppe, MD***  
Mayo Clinic Department of Physical Medicine and Rehabilitation

*(no CV uploaded)*

***Ronald Reeves, MD***  
Mayo Clinic Department of Physical Medicine and Rehabilitation

*(no CV uploaded)*

***John Hollman, PhD***  
Mayo Clinic Department of Physical Medicine and Rehabilitation

*(no CV uploaded)*

***Isobel Scarisbrick, PhD***  
Mayo Clinic Department of Physical Medicine and Rehabilitation

*(no CV uploaded)*

**110**

**A 3-Phase Interdisciplinary Quality Improvement Project Optimizing Neurogenic Bladder Care Documentation in an SCI Unit at a Veterans Administration Medical Center**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Nina Carmela Tamayo, MS, MPH, DO***  
Case Western University Metrohealth Hospital

**CV:**  
Name: Niña Carmela R. Tamayo, MS MPH DO   
Position Title: Spinal Cord Injury Fellow, Case Western Reserve University MetroHealth Hospital, Cleveland OH   
  
Personal Statement   
While embracing all aspects of PM&R, my SCI rotation during my 3rd year of residency was where I felt most like a physiatrist. During my rotation, I saw how rehabilitation medicine transformed my SCI patients, and showed me how far it is possible to push through limits and change the impossible to possible. I was further attracted to the interdisciplinary nature of this field. Being able to work with nurses, therapists, social workers towards a specific goal was exactly how I wanted to practice medicine.   
As a Spinal Cord Injury Fellow, I have the opportunity to expand my interests and research ideas. My passion lies in the intersection of rehabilitation medicine, nutrition, public health and health policy. I hope to utilize my experiences in both basic science and clinical research as well as my work with the NYC Department of Public Health to continue improving quality, delivery, and access to health care for SCI patients.   
Currently, my research involves assessing the travel resources available for SCI patients and determining the barriers to travel. The ultimate goal is to develop a travel checklist patients can utilize to plan their trips and improve access to resources to help them troubleshoot while traveling.   
  
  
Positions and Honors   
  
POSITIONS   
July 2017-Present   
Case Western University School of Medicine, Cleveland, OH   
SCI Fellow/ Clinical Instructor   
  
July 2016-June 2017   
Mercy Medical Center, Rockville Centre, NY   
Administrative Chief Resident   
  
July 2015-June 2017   
Mercy Medical Center, Rockville Centre, NY   
Resident Representative - LECOMT 2016-2017   
  
July 2015-June 2017   
Mercy Medical Center, Rockville Centre, NY   
Graduate Medical Education Committee/ Manual Subcommittee - Good Samaritan Hospital and Mercy   
Medical Center - 2016-2017   
  
July 2015-June 2016   
Mercy Medical Center, Rockville Centre, NY   
Academic Chief Resident   
  
HONORS/APPOINTMENTS   
2016 – Present   
American Spinal Injury Association   
Standards Subcommittee 2017-Present   
  
2013 – Present   
American Osteopathic College of Physical Medicine and Rehabilitation   
Resident Employment Liaison, Resident Physician Council 2016-2017   
  
August 2009- May 2013   
University of Medicine and Dentistry of New Jersey School of Osteopathic Medicine   
Dean’s Scholar   
  
April 2012   
The Osteopathic Research Center Conference, Selected Representative for UMDNJ-SOM   
UNTHSC/TCOM Presents: “Using Manual Therapies to Improve Musculoskeletal Health”   
  
February 2012   
Osteopathic Heritage Research Scholarship Nominee – UMDNJ-SOM   
Research Project: “Patient Perceived Satisfaction, Effectiveness, and Awareness of OMT Treatment in a Geriatric Office Setting”   
  
BOARD CERTIFICATIONS   
2017 Physical Medicine and Rehabilitation (Part I)   
  
C. Lectures/ Presentations   
Zuziak, N., Tamayo, N., Rai, P. Paraneoplastic Cerebellar Degeneration: A Case Report. Poster session presented at: American Osteopathic College of Physical Medicine and Rehabilitation (AOCPMR) Mid Year Meeting; 2017 May 4-7; Hollywood, FL. (3rd place win)   
  
Tamayo, N., Dulai, P. IgG-4 Related Ophthalmic Disease: A Case Report. Poster session presented at: American Osteopathic College of Physical Medicine and Rehabilitation (AOCPMR) Mid Year Meeting; 2017 May 4-7; Hollywood, FL.   
  
Tamayo, N., Hyppolite, N. “Pes Planus.” Musculoskeletal Conditions from Head to Toe. Thomas Riolo, MD, et al. Springer: 2016.   
  
Hyppolite, N., Tamayo, N. “Traumatic Wrist Sprain.” Musculoskeletal Conditions from Head to Toe. Xinfei Yu, MD, et al. Springer: 2016.   
  
“Treatment of Low Back Pain with OMM.” New York University Langone Medical Center, New York, New York. Sponsored by the New York State PM&R Society. May 2016.   
  
“Current Guidelines in Stroke Rehabilitation and Management.” Mercy Medical Center, Rockville Centre, NY. Sponsored by the Mercy Medical Center Stroke Committee. September 2016.   
  
“Stroke Rehabilitation Updates.” Philippine American Physiatry Association, AAPMR Conference, New Orleans, LA. October 2016.   
  
Siu, G., Polio, R., Tamayo, NC., Hyppolite, NA. “Proximal Muscle Weakness Secondary to Hyperkalemia in a Patient with Methylmalonic Acidemia: A Case Report.” PM&R Journal. 2013: 5(9):S175. Presented at The AAPM&R Conference 2013, National Harbor, MD.   
  
Siu, G., Swanson, R., Tamayo, NC., Hyppolite, NA. “Treating Hemiplegic Shoulder Pain with Spencer Technique, an Osteopathic Manipulative Treatment: A Case Study.” PM&R Journal. 2013: 5(9):S265. Presented at The AAPM&R Conference 2013, National Harbor, MD.

***Patricia Kiefer, MSN, RN, ACCNS-AG***  
Louis Stokes Veterans Administration Medical Center

**CV:**  
Name: Patricia L. Kiefer   
Position: Spinal Cord Injury Clinical Nurse Specialist, Louis Stokes Veterans Administration Medical Center, Cleveland, OH.   
  
A. Personal Statement:   
As the Spinal Cord Injury(SCI)Clinical Nurse Specialist (CNS) I function within three spheres consisting of the patient, the system, and nurse. In this role I recognize gaps in care not only on the SCI acute and long term care units but also through out the medical center regarding SCI patient care. I facilitate education and competency training with the assistance of the Acute Care CNS Team on neurogenic bowel and bladder care, wound care, autonomic dysreflexia protocol, and general care needs of SCI patients. This is especially important for non-SCI trained units, where SCI patients my be admitted when they require a higher level of care. Our goal has been to improve patient outcomes, create strong safety nets for our patients, improve knowledge and increase confidence of non-SCI staff while caring for our SCI veterans.   
Within the SCI unit, I consult and facilitate performance improvement projects to better patient outcomes and minimize current gaps in care. I have just finished the first phase of an educational intervention with the Acute CNS team related to difficult urinary characterizations for both the long term and acute care SCI units. We are currently in the second phase of our reduction in Methicillian Resistant Staph Aureus (MRSA) transmission rates project. I have developed several electronic medical record templates related to urinary catheter insertion and education for the Louis Stokes VA Medical Center.   
  
  
B. Positions   
  
Masters of Science of Nursing, Louis Stokes Cleveland Department of Veterans Affairs Medical Center   
3/8/2015 — Present   
Cleveland OH 44106   
Spinal Cord Injury/D Clinical Nurse Specialist   
  
Bachelor of Science of Nursing, Louis Stokes Cleveland Department of Veterans Affairs Medical Center   
6/1/2003 — 2015   
Cleveland OH 44106   
Cardiac Intensive Care Unit   
Medical Intensive Care Unit   
Rapid Response Team   
Charge Nurse Responsibilities/ Time Committee/ Education Committee   
  
  
Undergraduate Nursing Clinical Instructor, University of Akron School of Nursing   
1/1/2009 — 1/2016   
Akron, OH 44325   
Clinical instructor for 8200:211 and 8200:212, Sophomore level students   
Clinical instructor for accelerated nursing students   
Clinical instructor for 8200:360, Junior level students   
Undergraduate Nursing Clinical Instructor, Chamberlain College of Nursing   
Cleveland, Ohio Campus   
Clinical instructor for Critical Care 4/1/2016 – 8/2017   
  
  
Business Owner, Thimblewood   
1/1/1994 — 1/1/2007   
Smithville Ohio 44677   
  
Adult Education Instructor, Wayne County Career Center   
9/1/1989 — 1/1/2003   
Smithville, OH 44677   
  
  
C. Professional Memberships   
Association of Spinal Cord Injury Professionals   
Ohio Nurses Association   
Sigma Theta Tau   
Polytrauma & rehabilitation Field Advisory Committee   
National Association of Clinical Nurse Specialists   
Cuyahoga County Voluntary Organizations Active in Disaster (COAD) Board Member   
-Medical Center Diabetes Advisory Board Member   
-Patient Education Committee/Chair   
-Policy and Procedure Committee Member   
-Veteran Administration Office of Nursing Services Committee   
  
D. CERTIFICATIONS   
  
Acute Care Clinical Nurse Specialist- Adult Gerotonlogical   
Acute Cardiac Life Support   
Basic Life Support   
  
E. PRESENTATIONS/POSTERS   
  
Academy of Spinal Cord Injury Professionals/Poster Presentation 2017   
  
National Association of Clinical Nurse Specialist /Podium Presentation 2017   
  
LSVAMC Nursing Education Day /Quarterly Podium Presentation 2017   
  
North East Ohio Clinical Nurse Specialist/ Poster Presentation 2016   
  
-Wooster Community Hospital/ Health Literacy- Teach-back/ Podium Presentation 2014

***Ginger Willoughby, RN***  
Louis Stokes Veterans Administration Medical Center

*(no CV uploaded)*

***M. Kristina Henzel, MD, PhD***  
Louis Stokes Veterans Administration Medical Center

*(no CV uploaded)*

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**Vitamin supplement use in people with spinal cord injury: Results from the FRASCI study**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Jennifer Coker, MPH***  
Craig Hospital

**CV:**  
EMPLOYMENT   
09/2017 to present: Principal Investigator, A multi-site randomized controlled trial of an intervention to improve outcomes after spinal cord injury (funded by the National Institute on Disability, Independent Living, and Rehabilitation Research, NIDILRR), Craig Hospital, Englewood, CO   
09/2016 to present: Principal Investigator, Utilization of Complementary and Integrative Healthcare to Treat Pain in Persons with Spinal Cord Injury (NIDILRR), Craig Hospital, Englewood, CO   
11/2014 to present: Principal Investigator, A Bridge from Rehabilitation to Real-World: Reinventing Yourself after SCI (Craig H Neilsen Foundation), Craig Hospital, Englewood, CO   
04/2012 to present: Research Associate, Rocky Mountain Regional Spinal Injury System (RMRSIS) (NIDILRR), Craig Hospital, Englewood, CO   
10/2011 to 04/2012: Co-Investigator, Rehabilitation Research and Engineering Center on Wireless Technology, Crawford Research Institute, Shepherd Center, Atlanta, GA,   
01/2011 to 04/2012: Senior Research Analyst, Crawford Research Institute, Shepherd Center, Atlanta, GA   
05/2005 to present: Project Coordinator II, IRB Coordinator, Grant Writer, College of Health Professions, Medical University of South Carolina (MUSC), Charleston, SC   
01/2003 to 05/2005: Assistant Professor, Research, College of Health Professions, MUSC, Charleston, SC   
10/2002-01/2003: Research Coordinator, Crawford Research Institute, Shepherd Center, Atlanta, GA   
03/2001-10/2002: Research Coordinator, Georgia Model Brain Injury System (GAMBIS) (NIDRR), Crawford Research Institute, Shepherd Center & Emory University Center for Rehabilitation Medicine, Atlanta, GA   
06/1998-02/2001: Research Publications Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA,   
09/1997 - 05/1998: Research Specialist, Georgia Regional Spinal Cord Injury Care System (NIDRR), Crawford Research Institute, Shepherd Center, Atlanta, GA   
  
AWARDS & HONORS   
Rollins School of Public Health, Emory University: The James W. Alley Award for Outstanding Service to Disadvantaged Populations. May 14, 2001.   
American Spinal Injury Association, 2nd place poster prize: The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Poster presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best paper presenting original research findings for: Employment after Spinal Cord Injury: An Analysis of Cases from the Model Spinal Injury Systems.   
Shepherd Center, Virginia C. Crawford Annual Research Day Award 2000: Best poster presenting original research findings for: Health Behaviors of Women with Spinal Cord Injury.   
  
THESIS   
Coker, J. L., Thompson, N., & Krause, J. S. (2001). Social support and health outcomes after spinal cord injury: A mediation analysis. Defended March, 2001.   
  
PROFESSIONAL MEMBERSHIPS   
2016 to present: American Spinal Injury Association (ASIA) – Student Member   
2017 to present: International Spinal Cord Society (ISCoS) – Student member   
2017 to present: Cycle of Hope – Board of Directors   
  
PUBLICATIONS IN PROFESSIONAL JOURNALS:   
1. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Selected health behaviors among American Indians with spinal cord injury: Comparison to 1996 data from the Behavioral Risk Factor Surveillance System. Archives of Physical Medicine and Rehabilitation, 80, 1435-1440.   
2. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (1999). Depression and subjective well being among 97 American Indians with spinal cord injury. Rehabilitation Psychology, 44, 354-372.   
3. Krause, J. S., Kewman, D., DeVivo, M. J., Maynard, F., Coker, J. L., Roach, M. J., & Ducharme, S. (1999). Employment after spinal cord injury: An analysis of cases from the model spinal injury systems. Archives of Physical Medicine and Rehabilitation, 80, 1492-1500.   
4. Krause, J. S., Coker, J. L., Charlifue, S., & Whiteneck, G. G. (2000). Health outcomes among American Indians with spinal cord injury. Archives of Physical Medicine and Rehabilitation, 81, 924-931.   
5. Krause, J. S., Kemp, B. J., & Coker, J. L. (2000). Depression after spinal cord injury: Relationship with gender, race/ethnicity, aging, and socioeconomic indicators. Archives of Physical Medicine and Rehabilitation, 81, 1099-1109.   
6. Krause, J. S., Vines, C. L., Farley, T. L., Sniezek, J., & Coker, J. L. (2001). An exploratory study of pressure ulcers after spinal cord injury: Relationship to protective behaviors and risk factors. Archives of Physical Medicine and Rehabilitation, 82, 107-113.   
7. Alderson, A., Godsall, R., Mullin, J., Coker, J., & Macciocci, S. (2001). Serial cognitive assessment in an outpatient rehabilitation setting. Archives of Clinical Neuropsychology, 16, 757-769.   
8. Mullin, J., Ripley, D., Vargas, J., Godsall, R., Korrick, S., & Coker, J. (2002). Relationship between balance and cognition following traumatic brain injury. Premier Outlook, 3(4), 30-35.   
9. Thompson, N., Coker, J. L., Krause, J. S., & Henry, E. (2003). Purpose in life as a mediator of adjustment after spinal cord injury. Rehabilitation Psychology, 48, 100-108.   
10. Macciocchi, S. N., Bowman, B., Coker, J. L., Apple, D., & Leslie, D. P. (2004). The impact of co-morbid traumatic brain injury on functional outcome of persons with spinal cord injury. American Journal of Physical Medicine and Rehabilitation, 83, 22-26.   
11. Krause, J. S., Coker, J. L. (2006). Aging after spinal cord injury: A 30-year longitudinal study. Journal of Spinal Cord Medicine, 29, 371-376.   
12. Krause, J.S., Saunders, L.L., Reed, K.S., Coker, J.L., Zhai, Y, & Johnson, E. (2009). Comparison of the Patient Health Questionnaire and the Older Adult Health and Mood Questionnaire for self-reported depressive symptoms after spinal cord injury. Rehabilitation Psychology, 54, 440-448.   
  
PRESENTATIONS AT PROFESSIONAL CONFERENCES   
1. Krause, J. S., Coker, J. L., & Sutton, G. Risk for secondary conditions: A model for prediction and prevention. Presented at the annual meeting of the American Spinal Cord Injury Association, Cleveland, Ohio; April, 1998.   
2. Coker, J. L., Krause, J. S., Charlifue, S., & Sutton, G. Utilization of items from the BRFSS to monitor health related behaviors of persons with spinal cord injuries. Presented at the annual Centers for Disease Control & Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS) conference, Atlanta, Georgia; May, 1998.   
3. Krause, J. S., Sternberg, M., & Coker, J. L. Prospective predictions of mortality after spinal cord injury. Presented at the annual conference of the American Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1998.   
4. Coker, J. L., & Krause, J. S. Risk for further injury after the onset of SCI. Presented at the annual meeting of the American Congress of Rehabilitation Medicine, Seattle, Washington; November, 1998.   
5. Coker, J. L., Krause, J. S., Vines, C. L., & Farley, T. L. Behavioral predictors of pressure ulcers: A population cohort. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
6. Coker, J. L., Krause, J. S., & Charlifue, S. Pressure ulcers and secondary injuries among American Indians with spinal cord injury. Presented at the annual meeting of the American Public Health Association, Washington, DC; November, 1998.   
7. Coker, J. L., Krause, J. S., Whiteneck, G. G., & Charlifue, S. Health behaviors among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
8. Coker, J. L., Krause, J. S., & Hudson, L. The prevalence of secondary injuries after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
9. Krause, J. S., Hudson, L., & Coker, J. L. Purpose in life after SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
10. Krause, J. S., Coker, J. L., Whiteneck, G. G., & Charlifue, S. Health outcomes of secondary conditions among American Indians with SCI. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
11. Coker, J. L., Krause, J. S., & Henry, E. Prediction of employment after spinal cord injury: Matching research participants to individual cases. Presented at the annual meeting of the American Spinal Injury Association, Atlanta, Georgia; April, 1999.   
12. Krause, J. S., & Coker, J. L. Purpose in life after spinal cord injury. Part of a symposium entitled “Dealing with chronic injury: The role of purpose and spirituality.” Presented at the annual conference of the American Psychological Association, Boston, Massachusetts; August, 1999. (Presented by J. L. Coker).   
13. Coker, J. L., & Krause, J. S. Purpose in life after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999.   
14. Crewe, N. M., & Coker, J. L. Case studies of depression following SCI. Part of a panel presentation entitled “Depression among individuals in the community with spinal cord injury: Incidence, correlates, case studies, and treatment” presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 1999. (Presented by J. L. Coker).   
15. Krause, J. S., Kemp, B. J., & Coker, J. L. Correlates of depression after spinal cord injury. Presented at the annual conference of the American Congress of Rehabilitation Medicine, Orlando, Florida; October, 1999.   
16. Coker, J. L., Krause, J. S., & Henry, E. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Public Health Association, Chicago, Illinois; November, 1999.   
17. Coker, J. L., & Krause, J. S. The relationship of alcohol, drug, and tobacco use with personality in individuals with spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Chicago, Illinois; April, 2000 (2nd place prize winner).   
18. Coker, J. L., & Krause, J. S. Relationship of personality with risk behaviors in individuals with spinal cord injury. Presented at the annual meeting of the American Psychological Association, Division 22, Washington, DC; August, 2000.   
19. Gemella, A. G., Krause, J. S., & Coker, J. L. Health behaviors among women with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
20. Coker, J. L., & Krause, J. S. A comparison of psychosocial factors between five racial/ethnic groups. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
21. Coker, J. L., & Krause, J. S. Reasons for unemployment among 160 individuals with spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2000.   
22. Coker, J. L., & Krause, J. S. Social support after traumatic spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
23. Krause, J. S., & Coker, J. L. Depression after spinal cord injury. Presented at the annual conference of the American Spinal Injury Association, Long Beach, California; May, 2001.   
24. Coker, J. L. Factors involved in maintaining quality of life. Presentation for the American Spinal Injury Association pre-course entitled, “Aging with spinal cord injury: Clinical implications from recent research findings.” Long Beach, California; May 17, 2001.   
25. Ripley, D. L., Macciocchi, S., Coker, J. L., & Huang, M. Diabetes mellitus and functional outcome following cerebrovascular accident. Presented at the annual meeting of the Association of Academic Physiatrists, Las Vegas, Nevada; March, 2002. (Presented by J. L. Coker).   
26. Coker, J. L. Outcomes of persons with spinal cord injuries living in rural and urban settings. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2002.   
27. Coker, J. L. Social support and health outcomes after spinal cord injury. Presented at the annual conference of the American Psychological Association, Honolulu, Hawaii; July, 2004.   
28. Coker, J. L. Maintenance of healthy affect and avoidance of depression after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
29. Coker, J. L. Pre-injury alcohol use, intoxication at injury, and sensation seeking among persons with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
30. Coker, J. L. Factors associated with earnings from gainful employment after spinal cord injury. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
31. Coker, J. L. Spiritual coping: Differences between Caucasians and African Americans with spinal cord injuries. Presented at the annual conference of the American Association of Spinal Cord Injury Psychologists and Social Workers, Las Vegas, Nevada; September, 2004.   
32. Coker, J. L. & Krause, J. S. Disparities in subjective well-being, participation, & health after SCI: A 6-year longitudinal Study. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
33. Coker, J. L. & Krause, J. S. Depressive symptoms during inpatient rehabilitation for spinal cord injury. Presented at the annual conference of the American Public Health Association, Washington, DC; November, 2007.   
34. Krause, J., McArdle, J., Coker, J. (2008). Poster 61: Changes in somatic and nonsomatic depressive symptoms between inpatient rehabilitation and follow-up. Presented at the annual conference of the American Congress for Rehabilitation Medicine, Toronto, Ontario, October 2008.   
35. Coker, J. L., Saunders, L.L., Krause, J.S., Brotherton, S., Morrisette, D. Walking distance and spinal cord injury. Poster to be presented at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
36. Coker, J. L., Saunders, L.L., & Krause, J.S. Psychological factors affecting alcohol use after spinal cord injury. Oral presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
37. Coker, J. L., Krause, J.S., & Saunders, L.L. Vocational interests after recent spinal cord injury: Comparisons related to gender and race. Poster presentation at the annual conference of the National Association of Rehabilitation Research Training Centers, Alexandria, VA: May, 2010.   
38. Coker, J. L., Krause, J.S., Reed, K.S., & McArdle, J.J. Natural course of depressive symptoms after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
39. Coker, J. L., Krause, J.S., Saunders, L.L., & Newman, S. Posttraumatic stress disorder after spinal cord injury. Oral presentation at the annual conference of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV: September, 2010.   
40. Charlifue, S., Coker, J. L. Reinventing yourself – Enhancing self-efficacy skills in people with SCI. Oral presentation at the annual conference of the American Spinal Injury Association (ASIA) pre-course, Philadelphia, PA: April, 2016.

***Leslie Morse, DO***  
Craig Hospital

*(no CV uploaded)*

***Susan Charlifue, PhD***  
Craig Hospital

*(no CV uploaded)*

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**An in-depth analysis of the age profile of people sustaining spinal cord injury in Ireland**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Eimear Smith, MB, MSc, MD, FRCPI***  
National Rehabilitation Hospital

**CV:**  
É Smith, S Finn, P Fitzpatrick   
Epidemiology of paediatric traumatic and acquired non-traumatic spinal cord injury in Ireland.   
Top Spinal Cord Inj Rehabil 2017 (in press)   
  
É Smith, P Fitzpatrick   
Use of HIPE coding for spinal cord injury   
Ir Med J 2017; 110(2): 523   
  
É Smith Proximal tibia fracture in patients with incomplete spinal cord injury associated with robotic treadmill training. Correspondence.   
Spinal Cord Series & Cases, article number 16010, published 7th July 2016   
  
É Smith, C Comiskey, Á Carroll.   
Prevalence of and risk factors for osteoporosis in adults with   
acquired brain injury.   
Ir J Med Sci 2016; 185: 473-81.   
  
PW New, RK Reeves, É Smith, I Eriks-Hoogland, A Gupta, G   
Scivoletto, A Townson, M Belci, MW Post.   
International retrospective comparison of in-patient rehabilitation for patients with spinal cord dysfunction: differences according to etiology.   
Arch Phys Med Rehabil 2016; 97 (3): 380-5.   
  
É Smith, A O’Reilly, S Morris, K Synnott, M Timlin. Review of time to surgical decompression in traumatic spinal cord injured patients in Ireland. Ir Med J 2015; 108(9): 265-7.   
  
S Wong, M Saif, J O’Driscoll, N Kumar, É Smith, E Roels, I Vas Nes, W Faber, E McKeown, S Hirani, A Jamous.   
Use of probiotics in preventing antibiotic associated diarrhoea and clostridium difficile associated diarrhoea in spinal injury centres: an international survey of 4 western European countries.   
International Journal of Probiotics & Prebiotics 2015;10,(2/3):85-90   
  
PW New, RK Reeves, É Smith, A Townson, I Eriks-Hoogland, A Gupta, M Belci, G Scivoletto, MW Post.   
International retrospective comparison of in-patient rehabilitation outcomes for patients with spinal cord dysfunction: epidemiology and clinical outcomes.   
Arch Phys Med Rehabil 2015;96(6):1080-7.   
  
S Wong, J van Middendorp, M Belci, I van Nes, E Roels, É Smith, SP Hirani, A Forbes. Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal cord injuries: an international survey of four western European countries. Spinal Cord 2015;53(1):24-31   
  
É Smith, M Brosnan, C Comiskey, K Synnott.   
Road collisions as a cause of traumatic spinal cord injury in Ireland, 2001 – 2010.   
Top Spinal Cord Inj Rehabil 2014; 20(2): 158-165   
  
E Stanley, J Broderick, K Synnott, J McCarthy, É Smith, V Reid, F Colreavy,   
E Carton.   
Successful weaning from mechanical ventilation using phrenic nerve stimulation.   
Ir J Med Sci. 2014;183(1):149-50   
  
PW New, G Scivoletto, É Smith, A Townson, A Gupta, RK Reeves, MW Post, I Eriks-Hoogland, ZA Gill ZA, M Belci.   
International survey of perceived barriers to admission and discharge from spinal cord injury rehabilitation units.   
Spinal Cord 2013; 51(12):893-7   
  
PW New, A Townson, G Scivoletto, MW Post, I Eriks-Hoogland, A Gupta, É Smith, RK Reeves, ZA Gill.   
International comparison of the organisation of rehabilitation services and systems of care for patients with spinal cord injury.   
Spinal Cord 2013; 51(1):33-9.   
  
RA Bruce-Brand, GC Colleran, JM Broderick, DF Lui, É Smith, EC Kavanagh, AR Poynton   
Acute nontraumatic spinal intradural haematoma in a patient on warfarin   
J Emerg Med 2013; 45(5):695-7   
  
C Loftus, E Wallace, M McCaughey, É Smith   
Transanal irrigation in the management of neurogenic bowel   
dysfunction   
Ir Med J 2012; 105 (7): 241-3   
  
É Smith, A Carroll. Bone mineral density in adults with acquired neurological disabilities – a review. J Clin Densitom 2011;14(2):85-94   
É Smith. Treatments for osteoporosis in people with a disability.   
Physical Medicine & Rehabilitation 2011; 3 (2): 143 – 52.   
  
É Smith, C Comiskey, Á Carroll, N Ryall.   
A study of bone mineral density in lower limb amputees at a   
national prosthetic centre.   
Journal of Prosthetics & Orthotics 2011; 23 (1): 14 – 20.

***Patricia Fitzpatrick, MB, BCh, BAO, MD, FRCPI, MPH, FFPHMI***  
University College Dublin

**CV:**  
.

**113**

**Statin Therapy as Potential Treatment for Endocrine Metabolic Disease in Individuals with Chronic Spinal Cord Injury: A Cross-Sectional Study**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Masae Miyatani, PhD***  
Toronto Rehabilitation Institute-Uhn

**CV:**  
NAME: Masae Miyatani, Ph.D.   
TITLE: Clinical Research Coordinator   
  
A. Personal Statement   
Since completing my PhD training in Kinesiology in 2003 at the University of Tokyo, Japan, the substantial portion of my work has revolved around cardiovascular, skeletal muscle health and how body composition affects to human health in the general population and among people living with disabilities. Using lifestyle and exercise interventions and cross-sectional studies, my research has focused on how to prevent cardiovascular disease (CVD) and prolonged bedrest and CVD related morbidity and mortality. Since I joined the Toronto Rehabilitation Institute-University Health Network (TRI-UHN) in 2006 as a post-doctoral fellow, my clinical research focuses on cardiovascular health in people with chronic spinal cord injury (SCI). Specifically, I have been studying arterial stiffness and body composition as a potential screening tool for cardiovascular health and the efficacy of exercise and marketed drug interventions on arterial stiffness and body composition in SCI. As the world's first researcher to investigate arterial stiffness (aortic pulse wave velocity: PWV) in the spinal cord injury (SCI) population, I have found that the majority of people with SCI have abnormal PWV values suggesting a very high risk of future cardiovascular events and the need for more intensive lifestyle/ exercise interventions to improve cardiovascular health. Currently, I am coordinating a Health Canda approved study exploring the use of statins for the modification of bone mass and cardiometabolic disease risk in people with SCI (RoBaCO Trial, NCT03113994 ).   
  
B. Positions and Honors   
B-1. Positions   
2015 – Present Clinical Research Coordinator, Spinal Cord Program/ Toronto, Rehabilitation Institute-UHN, Toronto, Canada   
2014 – 2015 Research Analyst, Spinal Cord Program/ Toronto Rehabilitation Institute, Toronto, Canada   
10/2005 – 07/2014 Post-doctoral Fellow, Spinal Cord Program/ Toronto Rehabilitation Institute-UHN, Toronto, Canada   
10/2004 - 09/2005 Research Resident, Division of Health Promotion and Exercise, National Institute of Health and Nutrition, Tokyo, Japan   
04/2003 - 03/2004 Post-doctoral Fellow Japan Society for the Promotion of Science (Department of Life sciences, University of Tokyo, Tokyo, Japan)   
04/2001 - 03/2005 Lecturer (Health and Physical Education), Jyoshibi University of Art and Design, Tokyo, Japan   
04/1999 - 03/2001 Lecturer (Exercise Physiology and Anatomy) Yokohama YMCA college, Kanagawa, Japan   
04/1995 - 03/2001 Kinesiologist, Fitness Advisor Health and Fitness Care Clinic, Komazawa Olympic Park General Playground, Tokyo, Japan   
  
B-2. Academic and Research Honors   
01/2005 Travel Award for conference, Inoue Foundation for Science, Japan   
05/2004 Committee of CIHR Skeletal Health Training Program Translational Research Workshop Conference Award Committee of CIHR Skeletal Health Training Program, Canada   
08/2001 IVth World Congress of Biomechanics Conference Award Committee of IVth World Congress of Biomechanics, Canada   
  
B-3. Members   
1999/4 Japanese Society of Exercise and Sports Physiology, Member   
1999/4 Japanese Society of Physical Education, Member   
1999/4 American College of Sports Medicine, Member   
1996/5 Japan Society of Physical Fitness and Sports Medicine, Member   
2009/3 - 2011/3 Canadian Society for Exercise Physiology, Member   
2001/4 - 2004/3 Body Composition and Metabolism Research Association, Member   
  
C. Contribution to Science   
C-1. Selected Peer-Reviewed Publications   
• Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio LM, Craven BC. (2017) The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. J Spinal Cord Med. DOI: 10.1080/10790268.2017.1369248.   
• Hoskin JD, Miyatani M, Craven BC. (2017). Quality reporting of carotid intima-media thickness methodology; Current state of the science in the field of spinal cord injury.J Spinal Cord Med. DOI: 10.1080/10790268. Miyatani M, Alavinia SM, Szeto M, Moore C, Craven BC. (2017). Association between abnormal arterial stiffness and cardiovascular risk factors in peoplewith chronic spinal cord injury. Eur J Prev Cardiol. 24(5):552-558.   
• Chopra AS, Miyatani M, Craven BC. (2016). Cardiovascular disease risk in individuals with chronic spinal cord injury: Prevalence of untreated risk factors and poor adherence to treatment guidelines. J Spinal Cord Med. DOI: 10.1080/10790268.   
• Pelletier CA, Miyatani M, Giangregorio L, Craven BC. (2016). Sarcopenic Obesity in Adults With Spinal Cord Injury: A Cross-Sectional Study. Arch Phys Med Rehabil. 97(11): 1931-1937.   
• Miyatani M, Szeto M, Moore C, Oh P, McGillivray CF and Craven, BC. (2014). Exploring the Associations between Arterial Stiffness and Spinal Cord Impairment: A cross-sectional study. J Spinal Cord Med. 37(5): 556-564.   
• Miyatani M, Craven BC, McGillivray CF, Adachi JD. (2014). The Dietary Intakes of Calcium and Bone Health Related Nutrients among Individuals with and without Spinal Cord Injury. Journal of Nutritional Therapeutics. 3(2): 103-113.   
• Yoshida T, Masani K, Sayenko DG, Miyatani M, Popovic MR. (2013). Cardiovascular response to dynamic functional electrical stimulation during head-up tilt: preventing orthostatic hypotension in individuals with spinal cord injuries. IEEE Transactions on Neural Systems and Rehabilitation Engineering. 21(1): 37-46.   
• Miyatani M, K. Masani K, C Moore C, M Szeto M, Oh P and Craven BC. (2012). Test-retest reliability of Pulse Wave Velocity in Individuals with Chronic Spinal Cord Injury. J Spinal Cord Med. 35(5): 400-405.   
• Miyatani M, Masani K, Kawashima N, Craven BC, Thrasher TA, Popovic MR. (2012). Exercise Intensity during Treadmill Walking with Gait Patterned FES among Patients with Incomplete Spinal Cord Injury: Case Series.ISRN Rehabilitation. Article ID 251750.   
• Miyatani M, Yang P, Oh PI. (2012). Bioelectrical impedance and dual-energy x-ray absorptiometry assessments of changes in body composition following exercise in patients with type 2 diabetes mellitus. Journal of Obesity. DOI: 10.1155/2012/953060.   
  
D. Research Supports   
03/2012 – 03/2014 Craig H. Neilsen Foundation (Research grant as a part of fellowship), Novel protocol for detection of asymptomatic heart disease after SCI (Grant reference No. 191150) PI: Miyatani   
05/2010 - 10/2011 Ontario Neurotrauma Foundation, Canada, Intermittent Whole Body Vibration and Passive Standing for Treatment of Lower Extremity Osteoporosis, Muscle Atrophy, and Adiposity Among Men with Incomplete Spinal Cord Injury (Grant reference No. ONF-SCI-2006-WAVE-445), PI: Craven Co: Morris, Giangregorio, Popovic, Sayenko, Miyatani, Hitzig   
05/2009 – 12/2011 Ontario Neurotrauma Foundation, Canada(Research grant as a part of fellowship) Development of a non-invasive protocol for detection of asymptomatic coronary artery disease after SCI: Defining the associations between Arterial Stiffness and traditional and SCI specific risk factors (Grant reference No. 2008-SCI-PDF-692), PI: Miyatani   
04/2002 – 03/2004 Grant-in-Aid for Scientific Research from Ministry of Education, Culture, Sports, Science and Technology, Japan, Predicting limb muscle mass using bioelectrical impedance method and the relationship between muscle volume and force generation capacity, PI: Miyatani

***S. Mohammad Alavinia, MD, PhD***  
Toronto Rehabilitation Institute-Uhn

*(no CV uploaded)*

***Lora Giangregorio, PhD***  
University of Waterloo

*(no CV uploaded)*

***Lindsie Blencowe, MSc***  
Toronto Rehabilitation Institute-Uhn

*(no CV uploaded)*

***Kim Anderson-Erisman, PhD***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***Angela Cheung, MD, PhD***  
Departments of Medicine and Joint Department of Medical Imaging, University Health Network

*(no CV uploaded)*

***Mark Nash, PhD***  
University of Miami Miller School of Medicine

*(no CV uploaded)*

***B. Catharine Craven, Md, MSc***  
Toronto Rehabilitation Institute-Uhn

*(no CV uploaded)*

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**Prevalence of vitamin D deficiency in patients with spinal cord injury: a cross sectional study.**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Irina Gainullina, MD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
No CV

***Alex Rouse, MD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Shashi Hirani, PhD***  
City, University of London

*(no CV uploaded)*

***Mofid Saif, MD., FRCP., FRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Allison Graham, MD., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
Evidence of Esteem   
2010: Nutrition Society: Postgraduate Competition Award   
2010: Hospital Infection Society: The Mike Emmerson Young Investigator’s Award   
2011: Buckinghamshire Healthcare NHS Trust: Staff Award: winner of the Courteous and Professional category   
2012: International Spinal Cord Society: Spinal Cord Prize – Silver Medal   
2013: American Spinal Injury Association meeting: Award papers / posters   
2013: ESPEN: Outstanding abstract (8 out of 576 accepted abstracts)   
2013: International Spinal Cord Society: Award paper (2nd place)   
2014: The Rose Simmond’s Award, the British Dietetic Association.   
2015: Spinal Injury Association, shortlisted candidate for the Award for Innovation and Research   
2017: New member spotlight – American Spinal Injury Association.   
Project Grants   
Aventis Pharma Limited 2008-09; (£3000).Wong SS (CI) et al Spinal Clinic for Obesity Outpatient Project.   
Abbott Nutrition 2009-11 (£15,000). Wong SS (CI) et al. Nutritional status in patient with spinal cord injury: a cross sectional, multi centre study.   
Hospital Infection Society 2010-12 (£10,000) & Yakult 2009-11 (£5,000) Wong SS (CI), et al. Do probiotics prevent antibiotics associated diarrhoea in SCI patients: a randomised controlled trial   
Waterloo Foundation (£9,091) & Abbott Nutrition 2010-12 (£9,091) Wong SS (CI), et al. A single centred study of the nutritional status of paediatric patients with spinal cord injuries: An Observational study.   
Buckinghamshire Healthcare NHS Trust (£10,000) Wong SS (CI), et al. Enhanced Pressure ulcers Recovery Programme (E PREP): A pilot study on the effect of specialised amino acid supplements in the management of pressure ulcers in patients with spinal cord injuries: a double-blinded, randomised, placebo-controlled trial   
Yakult Europe 2014-2016 (£345,793) Wong S (CI), Jamous A, O’Driscoll J, Hirani SP, Whelan K & Forbes A. Efficacy of Consuming Lactobacillus casei Shirota (LcS) In Spinal cord injury Patients (ECLISP) Effect of probiotics on gastrointestinal function in patients with spinal cord injuries: a multicentre, randomised, double-blinded, placebo-controlled trial.   
Buckinghamshire Healthcare NHS Trust (£15,000) Gainullina I, Graham A, Saif M & Wong S. Efficacy of ergocalciferol supplementation on urine calcium among patients with spinal cord injury: a randomised double-blinded, placebo-controlled trail.   
Equipment grants   
Buckinghamshire Healthcare NHS Trust’s Charitable Trust Fund (2014) Purchase of Quark RMR, Indirect calorimetry. COSMED SRL, Rome, Italy. (£24,989)   
Total research income (2007 – 2014) inclusive £ 476,714   
Conferences, symposia and workshops   
Co-ordination and management of research symposia and teaching workshops   
Since 2012 – Samford organise annual nutrition study day for covering nutritional Needs of Patients Following Spinal Cord Injury, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Invited lecturer   
2011 – (present) – teaching in UCL MSc: Clinical Nutrition module in Spinal Cord Injuries   
2012 March – Development and validation of Spinal Nutrition Screening Tool in patients with spinal cord injuries. University College London Medical Grand Round   
2012 November – Do probiotics prevent antibiotic-associated diarrhoea in patients with spinal cord injuries: a randomized controlled trial: an interim analysis. FIS / HIS 2012 conference, Liverpool ACC.   
2013 April – Patient and Public Involvement in Clinical Research. University of Aberdeen / Medical Research Council, Aberdeen, Scotland   
2014 November – Do probiotic prevent antibiotic-associated diarrhoea in patients with spinal cord injuries – a RCT. FIS / HIS 2014 conference, Lyon, France.   
2015 April – International Probiotic Study Day, Yakult Europe, Berlin, Germany.   
2016 November – Shirota Conference, Tokyo, Japan   
Book / Guideline contribution   
1.MASCIP (Multidisciplinary Association for Spinal Cord Injury Profession) (2010) Guidelines on rehabilitation of older adult with spinal cord injury – Wong S (2010) Chapter on Nutrition www.mascip.co.uk accepted, launched in Nov MASCIP conference   
2.International Spinal Cord Society (2012) E-learning modules – Nutritional management after spinal cord injuries (Basic and Advanced module) – Kovindha A, Wong S, Baumann W, et al. http://www.elearnsci.org/ http://www.elearnsci.org/intro.aspx?id=5&category=Doctors   
3. British Society of Rehabilitation Medicine (BSRM) (2012) Nutritional management in neuro- rehabilitation for UK national registrar training. Wong S, Spillman L & Graham A (2012)   
4. British Dietetics Association (2014) Manual of Dietetics Practice, 5th Edition – Twist A & Wong S (2014) Spinal Cord Injuries. Wiley Blackwell   
5. Consortium for Spinal Cord Medicine (2014) Pressure ulcer prevention and treatment following injury: A clinical practice guideline for health-care providers, 2nd Edition. Wong S - Nutrition section.   
6. MASCIP (2014-16) Weight management guideline for individuals with spinal cord injuries – Wong S (Guideline Chair), Bearne P, Fitzsimons L, Graham A, Taylor C, Twist A, Smith E.   
7. International Spinal Cord Society (ISCOS) (2014/5) ISCOS text book - Nutritional management after spinal cord injuries. Kovindha A &Wong S   
8. British Dietetics Association (2016) Advanced Nutrition and Dietetics in Nutrition Support – Wong S (2015) Spinal Cord Injuries.   
  
Recent peer-reviewed publications:   
1. Wong S, et al (2011) Spinal Clinic for Obese Out-patient Project (SCOOP) – a 1 year report. Food Nutr Sci 2, 901-7   
2. Wong S, et al (2012) How do spinal cord injury centres manage malnutrition? A cross-sectional survey of 12 SCIC in the UK and Ireland. Spinal Cord 50, 132-5.   
3. Wong S, et al (2012) The prevalence of malnutrition in spinal cord injured patients - a UK multicentre study. Br J Nutr 108, 918-923.   
4. Wong S, et al (2012) Validation of the Spinal Nutrition Screening Tool (SNST) in patients with spinal cord injuries (SCI)-result form a multicentre study. Eur J Clin Nutr 66, 382-7.   
5. Wong S, et al (2012) Profile and prevalence of malnutrition in children with spinal cord injuries - assessment of the Screening Tool for Assessment in Paediatrics (STAMP). Spinal Cord 50, 67-71.   
6. Wong S, et al (2012) An audit to assess awareness and knowledge of nutrition in a UK spinal cord injuries centre. Spinal Cord 50, 446-451.   
7. Wong S, et al (2012) Meal provision in a UK National Spinal Injury Centre – a qualitative audit of service users and stakeholders. Spinal Cord 50, 772-777.   
8. Wong S, et al (2013) Validation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP) in patients with spinal cord injuries (SCI), Spinal Cord 51, 424-429.   
9. Wong S, et al (2013) Nutritional supplement use in patients admitted to spinal cord injury centre, J Spinal Cord Med 36, 645-651.   
10.Wong S, et al (2013) Morbid obesity after spinal cord injury: an ailment not to be treated?   
Eur J Clin Nutr 67, 998-999   
11. Wong S, et al (2014) A Lactobacillus casei Shirota probiotic drink reduces antibiotic-associated   
diarrhoea in patients with spinal cord injuries: a randomised controlled trial. Br J Nutr 111, 672-678.   
12. Wong S, et al (2014) IS nutritional risk associate with adverse clinical outcomes in spinal cord injured   
patients admitted to a spinal centre? Eur J Clin Nutr 68, 125-130.   
13. Wong S (2014) Malnutrition after spinal cord injury. Network Health Dietitian 90, 27-29.   
14. Wong S, et al (2015) Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal   
cord injuries: an international survey. Spinal Cord 53, 24-31.   
15. Wong S, et al (2015) Review of dietetic service provision and activity in spinal cord injury centres: a multicentre survey in the UK   
and Republic of Ireland. Spinal Cord 53, doi: 10.1038/sc.2015.83   
16. Wong S et al (2015) Survey on the use of probiotics in preventing antibiotic associated diarrhoea and Clostridium difficile   
associated diarrhoea in spinal cord injuries centres. Int J Probiotcs and Prebiotics 10, 85-90.   
17. Hughes L, Wong S (2015) Nutritional Support and Spinal Cord Injuries. Complete Nutrition 15: 11-14.   
18. Wong S, et al (2015) Effectiveness of probiotic in preventing antibiotic associated diarrhoea and / or Clostridium difficile   
associated diarrhoea in patients with spinal cord injury: a study protocol for a systematic review of randomised controlled   
trials. Syst Review 4, 170.   
19. Wong S, et al (2017) Use of antibiotic and prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: a   
UK national spinal injury centre experience. Spinal Cord 2017 Jan 31: doi: 10.1038/sc.2016.193 [Epub ahead of print]   
20. Wong S, et al (2017) Effectiveness of probiotic in preventing antibiotic associated diarrhoea (AAD) and Clostridium difficile   
associated diarrhoea (CDAD) in patients with spinal cord injury: A systematic review. Int J Probiotics and Prebiotics 12, 115-122.   
21. Wong S, Santullo P, Hirani SP et al (2017) Use of antibiotics and the prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: an international, multi-centre study. J Hosp Infect 97, 146-152.

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**Prevalence of dyslipidaemia in patients with spinal cord injury: a cross-sectional study.**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Georgiana Iova, MD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
No CV

***Alex Rouse, MD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

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***Salman Lari, MRCS***  
Southport & Ormskirk Hospital

*(no CV uploaded)*

***Ibrahim Ussef, MD***  
Royal Buckinghamshire Hospital

*(no CV uploaded)*

***Ali Jamous, MD***  
Royal Buckinghamshire Hospital

*(no CV uploaded)*

***Allison Graham, MD., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

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**Normalization of Blood Pressure with Spinal Cord Epidural Stimulation after Severe Spinal Cord Injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Susan Harkema, PhD***  
Frazier Rehab Institute; University of Louisville Kentucky Spinal Cord Injury Research Center

**CV:**  
SUSAN JILL HARKEMA, Ph.D.   
  
Frazier Rehab Institute   
220 Abraham Flexner Way, 15th Floor   
Louisville, KY 40202   
Office: (502) 581-8747   
Fax: (502) 582-7605   
Email: susanharkema@kentuckyonehealth.org   
  
  
EDUCATION   
  
May 1987 B.S. Department of Physiology, College of Natural Science   
Michigan State University, Lansing, Michigan   
  
September, 1993 Ph.D. Department of Physiology, College of Natural Science   
Michigan State University, Lansing, Michigan   
Dissertation Topic: Control of aerobic metabolism in skeletal muscle using phosphorous nuclear magnetic resonance spectroscopy (31P-NMR).   
  
September 1993 – Postdoctoral Fellow Department of Neurology, School of Medicine   
May 1995 University of California, Los Angeles   
  
  
ACADEMIC APPOINTMENTS   
  
1995 – 1998 Assistant Researcher Department of Neurology and Brain Research Institute   
University of California, Los Angeles   
  
1998 – 2005 Assistant Professor Department of Neurology   
School of Medicine Brain Research Institute   
University of California, Los Angeles   
  
2005 - 2010 Associate Professor Department of Neurological Surgery   
University of Louisville   
  
2005- current Owsley B. Frazier Department of Neurological Surgery   
Chair in Neurological University of Louisville   
Surgery   
  
Rehabilitation Research Kentucky Spinal Cord Injury Research Center   
Director University of Louisville   
  
Director of Research Frazier Rehab Institute   
Louisville, KY   
  
2010- current Professor Department of Neurological Surgery   
University of Louisville   
  
2014- current Associate Director Kentucky Spinal Cord Injury Research Center   
University of Louisville   
  
  
OTHER POSITIONS AND EMPLOYMENT   
  
1988 – 1989 Graduate Assistant Department of Physiology   
Michigan State University   
  
1989 – 1993 Predoctoral Fellow Department of Physiology   
Michigan State University   
  
1993 – 1995 Postdoctoral Fellow Department of Neurology   
University of California, Los Angeles   
  
2004 – current Director Christopher & Dana Reeve Foundation   
NeuroRecovery Network   
  
PROFESSIONAL MEMBERSHIPS AND ACTIVITIES   
  
American Congress of Rehabilitation Medicine   
American Spinal Injury Association   
American Physiological Society   
Society for Neuroscience   
Society for Neurotrauma   
Women in Neurotrauma Research   
  
  
HONORS AND AWARDS   
  
1988 MSU Graduate Fellowship College of Natural Science   
Michigan State University   
  
1989 – 1992 NIH Predoctoral Department of Physiology   
Fellowship Michigan State University   
  
1992 Outstanding Graduate Faculty Professional Women’s Association   
Woman Award Michigan State University   
  
1993 Jack Hoffart Award Department of Physiology   
Michigan State University   
  
1993 – 1995 NIH Post Doctoral Department of Neurology   
Fellowship University of California, Los Angeles   
  
2000 G. Heiner Sell Memorial American Spinal Cord Injury Association   
Lectureship   
  
  
2006 Louis E. Alley University of Iowa   
Memorial Lectureship   
  
2007 Women 4 Women University of Louisville   
Academic Honoree   
  
SCI Hall of Fame National Spinal Cord Injury Association   
Achievement in Research   
in Quality of Life   
  
Annual Doctors’ Ball Jewish Hospital & St. Mary’s HealthCare   
Honoree, Excellence in   
Research Award   
  
2008 Women 4 Women Frazier Rehab Institute & Women 4 Women   
Recognition   
  
Estabrook Award Kessler Medical Rehabilitation Research and   
Education Corporation   
  
2009 Reeve-Irvine Research Reeve-Irvine Research Center   
Medal University of California at Irvine, School of   
Medicine   
  
2010 Keynote Speaker Annual Meeting of the   
Honoree Academy of Spinal Cord Injury Professionals   
and Jayanthi Charitable Foundation   
  
2011 Rick Hansen Foundation Rick Hansen Institute Awards Event   
Difference Maker Award Canadian Embassy   
Washington, DC   
  
Popular Mechanics Popular Mechanics Breakthrough Conference   
Breakthrough Award New York, NY   
  
2012 John Coulter Award ACRM-ASNR Annual Conference   
  
2014 Innovator of the Year Business First "2014 Partners in Healthcare"   
  
  
  
  
  
COMMITTEE ASSIGNMENTS AND ADMINISTRATIVE SERVICES   
  
University Service   
  
2000 – 2001 Neuroscience Interdepartmental Graduate Admissions Committee, UCLA   
  
2002 Women in Science Faculty Roundtable, Undergraduate Research Center, Life and Physical Sciences, UCLA   
  
2003 ARCS Foundation, University Relations Committee Visit to UCLA, Los Angeles, CA   
  
2003 – 2004 Affiliated Work Group for Education, Department of Neurology, UCLA   
  
2004 – 2005 Neural Repair Training Program Steering Committee, UCLA   
  
2005 Education Cabinet, Department of Neurology, UCLA   
  
2006 – current Advisory Board, Frazier Rehab & Neuroscience Institute   
  
2007 Vice Dean of Research Search Committee, University of Louisville   
  
2008 Chairperson, Research Integrity Committee, University of Louisville   
  
2009 Search Committee for Chair of Department of Neurological Surgery, University of Louisville   
  
2011 Search Committee for Senior Associate Dean for Clinical Research, University of Louisville   
  
2014 - 2015 Search Committee for Chair of Department of Neurological Surgery, University of Louisville   
  
  
JOURNAL EDITORIAL BOARDS, ADVISORY COUNCILS,   
PEER REVIEWER OF MANUSCRIPTS   
  
Community Service   
  
2007 Statewide Strategy Meeting on Rehab Medicine R&D, Kentucky Science & Technology Assessment, Versailles, KY   
  
New Board Member Orientation, Frazier Rehab Institute, Louisville, KY   
  
  
  
  
  
Consulting Activities - International   
  
2009 Co-Chairperson, North American Clinical Trial Network’s Neurological Outcome Assessment Task Force   
  
  
Consulting Activities - National   
  
2000 Workshop on functional and dysfunctional spinal circuitry: Role for rehabilitation and neural prostheses, National Institute of Neurological Disorders and Stroke, University of California, Los Angeles   
  
2000 – 2003 National Institutes of Health, Ad Hoc Reviewer, National Institute of Neurological Disorders and Stroke, Study Section A   
  
Consultant/Mentor K01 Career Development Award for Andrea Behrman, Ph.D., Physical Therapy Department, University of Florida, National Institute of Child Health and Human Development   
  
2003 – 2004 External Reviewer, Canadian Institutes of Health Research   
  
2008 Research Integrity Review Panel, University of Louisville   
  
University of Florida Program Project Grant Advisory Committee   
  
2009 Consultant, Department of Defense Spinal Cord Injury Research Program   
  
External Reviewer, FISM Society   
  
Advocacy Committee, American Spinal Injury Association (ASIA)   
  
Member, Special Emphasis Panel, NIH Academic Research Enhancement Awards   
  
2011 National Institutes of Health Musculoskeletal Rehabilitation Sciences Study Section (MRS)   
  
Roman Reed Grant Reviewer   
  
2013 Rick Hansen Institute Cure Program Advisory Committee Meeting   
  
2015 Mission Connect Review of Science   
  
2016 Mission Connect Review of Science   
  
NIH Review- MRS   
  
2017 Mission Connect Review of Science   
  
  
Editorial Services to Scholarly Publications (Reviewer)   
  
Brain   
Clinical Biomechanics   
Clinical Neurophysiology   
Experimental Brain Research   
Experimental Neurology   
Journal of Applied Physiology   
Journal of Neurophysiology   
Journal of Neuroscience   
Journal of Neurotrauma   
Progress of Neurobiology   
Spinal Cord   
  
BOARD MEMBERSHIPS   
  
2007 – 2010 Business Development Committee, Frazier Rehab Institute, Louisville, KY   
  
  
  
TEACHING   
  
1998 Lecturer, Adult Rehabilitation: Neurological Evaluation and Treatment, Department of Physical Therapy, University of Florida, Gainesville, Florida.   
  
Lecturer, Neuroanatomy and Neuroscience Elective, Department of Physical Therapy, Chapman University, Orange, California.   
  
1999 Lecturer, Current Issues in Psychology: Recovery of Function, Department of Psychology, UCLA.   
  
Lecturer, Recovery of walking: Locomotor training and spinal cord injury workshop. Florida Physical Therapy Association Spring Conference, Orlando, FL.   
  
Lecturer, Neuroscience Grand Rounds, Department of Neurology, UCLA.   
  
2000 Lecturer, Neurology Outpatient Conference, Department of Neurology, UCLA.   
  
Lecturer, Grand Rounds, Department of Physical Medicine and Rehabilitation, Ohio State University, Columbus, Ohio.   
  
2001 Lecturer, Instructional Course, Locomotor Training Using Body Weight Support on a Treadmill for the Recovery of Walking After Spinal Cord Injury, American Spinal Injury Association, Long Beach, CA.   
  
Instructor, Psychology Special Studies, UCLA, Los Angeles, CA.   
  
2001 – 2005 Instructor, Physiological Science Special Studies, UCLA   
  
2002 Lecturer, Body Weight Supported Ambulation Training – Application to Neurological Rehabilitation, Magee Rehabilitation, Jefferson Health System, Philadelphia, PA   
Lecturer, Human Locomotor Training Using Body Weight Support on a Treadmill, Christopher Reeve Paralysis Foundation Research Consortium on Spinal Cord Injury Associates Meeting, Los Angeles, CA   
  
Instructor, Locomotor Training Program, Health Science Center Foundation, Syracuse, NY   
  
Instructor, Neuroscience Evaluation of Research in Literature in Neuroengineering, UCLA.   
  
Lecturer, Spinal Cord Injury Research Techniques, Reeve-Irvine Research Center, UCI, Irvine, CA.   
  
2002 – 2005 Instructor, Locomotor Training Instructional Program for clinical practice, UCLA.   
  
2003 Lecturer, Grand Rounds, The Los Amigos Research & Education Institute, Rancho Los Amigos National Rehabilitation Center, Downey, CA.   
  
2004 – 2005 Instructor, Neurobiology: Synapses, cells and circuits, UCLA, Los Angeles, CA.   
  
Instructor, Physiological Science: Systems Anatomy, UCLA, Los Angeles, CA.   
  
2006 Instructor, NeuroRecovery Network National Training, Frazier Rehab Institute, Louisville, KY.   
  
Lecturer, Regional Training, Frazier Rehab Institute, Louisville, KY.   
  
Lecturer, Regional Training, Magee Rehabilitation, Philadelphia, PA.   
  
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2009 Lecturer, Physical Medicine and Rehabilitation Residents, Frazier Rehab Institute, Louisville, KY.   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY.   
  
Lecturer, Grand Rounds, Reeve-Irvine Medal Symposium, University of California, Irvine.   
  
Lecturer, Kinesiology Seminar, University of Michigan, Ann Arbor.   
  
2010 Lecturer, Grand Rounds, Mary Free Bed Rehabilitation Hospital, Grand Rapids, Michigan   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY.   
  
Instructor, Locomotor Training Workshop, Spinal Cord Injury and Physical Activity Program, Rehabilitation Sciences Research Centre, The University of Melbourne and Austin Health, Australia   
  
2011 Lecturer, University of Alberta, Department of Cell Biology, Edmonton, Alberta, Canada   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY.   
  
2012 Lecturer, Boston University School of Medicine, Boston, MA,   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY.   
  
Lecturer, Grand Rounds, Kessler Foundation Research Center, West Orange, NJ   
  
Lecturer, Grand Rounds, University of Pittsburgh School of Medicine, Pittsburgh, PA   
  
Lecturer, Grand Rounds, Kessler Conference Center, West Orange, NJ   
  
Lecturer, Grand Rounds, Panthers Rehab, Pittsburgh, PA   
  
2013 Lecturer, Grand Rounds, Burke Medical Research Institute, White Plains, NY   
  
Lecturer, Grand Rounds, NY Presbyterian Hospital, New York, NY   
  
Lecturer, 2013 NSM Division Seminar Series, JCTC in Downtown Louisville   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY   
  
2014 Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY   
  
Lecturer, 13th Annual Neurotrauma Symposium, San Francisco, CA   
  
Lecturer, Rehabilitation Institute of Chicago, Chicago, IL   
  
Lecturer, ANZSCoS 2014 Annual Scientific Meeting, Auckland, NZ   
  
2015 Lecturer, Gail F. Beach Lecture Series, The Miami Project to Cure Paralysis, Miami, FL   
  
Lecturer, Department of Rehabilitation Grand Rounds, Weill Cornell Medical College, New York, NY   
  
Lecturer, Department of Neurology Grand Rounds, Mount Sinai School of Medicine, New York, NY   
  
NIH BRAIN Initiative Workshop, NINDS, North Bethesda, MD   
  
Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY   
  
2016 Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY   
  
Instructor, NeuroRTI NMES Training, Frazier Rehab Institute, Louisville, KY   
  
2017 Instructor, NeuroRecovery Network National Summit, Frazier Rehab Institute, Louisville, KY   
  
  
Research Scientists   
  
2005 Claudia Angeli, PhD   
Assistant Director, Neuroscience Collaborative Center   
  
2006 Alexander Ovechkin, MD, PhD   
Research Assistant Professor, University of Louisville   
  
2014 Dimitry Sayenko, MD, PhD   
Research Assistant Professor, University of Louisville   
  
2015 Enrico Rejc, PhD   
Research Assistant Professor, University of Louisville   
  
Student Education/Training   
  
Postdoctoral Fellows   
  
1998 – 2000 Daniel Ferris, PhD, Assistant Professor, Department of Kinesiology, University of Michigan   
  
2006 Sevda Aslan, PhD, Post-doc, University of Louisville   
  
2007 Marie-Pascale Cote, PhD, Post Doctoral Researcher, Anatomy Control, Drexel University   
  
2009 Jessica Hillyer, PhD, Post-doc, University of Louisville   
  
2013 Enrico Rejc, PhD, Research Assistant Professor, University of Louisville   
  
2014 Lynette Montgomery, PhD, current position- Post doc, University of Louisville   
  
2015 Bonnie Ditterline, PhD, current position- Post doc, University of Louisville   
  
2017 Soo Sun, PhD, current postion- Post doc, University of Louisville   
  
  
Graduate Students   
  
1997 – 1999 Seanna Hurley-Kringen, Masters of Science, Department of Physiological Science, UCLA   
  
1998 – 2000 Janell Beres, Masters of Science, Department of Physiological Science, UCLA   
  
1999 Laura van Steenveldt, Masters of Science, Visiting from Universiteit Maastricht, The Netherlands   
  
2001 – 2002 Wieteke Schouten, Graduate Student, Masters Thesis, Visiting from Universiteit Maastricht, The Netherlands   
  
Rubia van den Brand, Graduate Student, Masters Thesis, Visiting from Universiteit Maastricht, The Netherlands   
  
Susan McLaughlin, Physical Therapy, Research Internship, University of Utah   
  
2003 Sarah Ahn, Research Rotation, Masters of Science Candidate, Department of Physiological Science, UCLA   
  
2004 Angela Pool, Research Rotation, PhD Candidate, Department of Neurobiology, UCLA   
  
Christine Dy, Research Rotation, PhD Candidate, Department of Neuroscience, UCLA   
  
Nicole Khalili, Research Rotation, PhD Candidate, Biomedical Engineering, UCLA   
  
Christine Dy, PhD Candidate, Department of Neuroscience, UCLA   
  
2005 Reuben Jessop, Physical Therapy, Research Internship, University of Utah   
  
Summer Jackson, Physical Therapy, Research Internship, University of Utah   
  
Stephanie Rock, Physical Therapy, Research Internship, University of Utah   
  
Christine Dy, PhD Candidate, Department of Neuroscience, UCLA   
  
2006 Krista Caudle, Graduate Student, University of Louisville   
  
2007 - 2011 Daniela Terson De Paleville, PhD Candidate, University of Louisville   
  
David Beneigh, Masters Student, University of Louisville   
  
2011 Darryn Atkinson, PhD Candidate, University of Louisville   
  
2013 Amber Mink, PhD Candidate, University of Louisville   
  
  
  
Undergraduate Students   
  
1998 – 2005 Honors Neuroscience (1 year) 62 students   
UCLA Undergraduate Student Research Program   
  
1998 – 2000 Summer Science Mentoring Program (3 months) 5 students   
High School Minority Students   
  
2002 – 2004 Summer Research Program (1 year) 3 students   
UCLA Neuroengineering   
  
2005 Honors Neuroscience (1 year) 42 students   
UCLA Undergraduate Student Research Program   
  
2006 Cooperative Internship (3 months) 1 student   
University of Louisville   
Department of Health and Sport Sciences   
  
2007 Cooperative Internship (1 year) 1 student   
University of Louisville   
Department of Biomedical Engineering   
  
Summer Internship (3 months) 1 student   
Kentucky Country Day   
  
2008 Cooperative Internship (3 months) 2 students   
University of Louisville   
Department of Health and Sport Sciences   
  
Cooperative Internship (9 months) 1 student   
Purdue University   
Department of Biomedical Engineering   
  
Cooperative Internship (9 months) 1 student   
University of Louisville   
Department of Biological Sciences   
  
Summer Internship (3 months) 1 student   
Manual High School   
  
2009 Summer Internship (2 months) 1 student   
University of Kentucky   
  
Summer Internship (3 months) 1 student   
Ohio State University   
  
Cooperative Internship (1 year) 1 student   
University of Louisville   
Department of Bioengineering   
  
2010 Summer Internship (2 months) 1 student   
University of Louisville   
  
Summer Internship (2 months) 1 student   
Carleton College   
  
Cooperative Internship (4 months) 1 student   
University of Louisville   
  
  
2011 Summer Internship (4 weeks) 1 student   
University of Louisville   
  
Cooperative Internship (3 months) 2 students   
University of Louisville   
  
  
2012 Summer Internship (2 months) 1 student   
University of Louisville   
  
Cooperative Internship (3 months) 3 students   
University of Louisville   
  
2013 Summer Internship (2 months) 1 student   
Bellarmine University   
  
Cooperative Internship (3 months) 3 students   
University of Louisville   
  
2014 Summer Internship (2 months) 1 student   
Bellarmine University   
  
Summer Internship (2 months) 1 student   
Michigan University   
  
Summer Internship (2 months) 1 student   
Manual High School   
  
Cooperative Internship (3 months) 3 students   
University of Louisville   
  
2015 Summer Internship (3 months) 1 student   
Bellarmine University   
  
Summer Internship (2 months) 1 student   
Michigan University   
  
Summer Internship (2 months) 2 student   
Manual High School   
  
Cooperative Internship (3 months) 3 students   
University of Louisville   
  
2016 Summer Internship (3 months) 1 student   
Bellarmine University   
  
Summer Internship (2 months) 2 student   
Manual High School   
  
Cooperative Internship (3 months) 3 students   
University of Louisville   
  
2017 Summer Internship (3 months) 2 students   
Centre College   
  
  
ABSTRACTS   
  
International   
  
1. Aoyagi D, Ichinose WE, Harkema SJ, Reinkensmeyer DJ, Bobrow JE. (2005) An assistive robotic device that can synchronize to the pelvic motion during human gait training. International Conference on Rehabilitation Robotics (ICORR).   
  
2. Dy CJ, Beres-Jones JA, Harkema SJ. (2005) Functionally isolated spinal interneuronal circuits can mediate alternation of antagonist muscles during stepping after human spinal cord injury. 35th Congress of the International Union of Physiological Sciences.   
  
3. Aslan SC, Krassioukov K, Harkema SJ. (2009) Neural Cardiovascular Function After Cervical Spinal Cord Injury. Proceedings of the 4th International IEEE EMBS Conference on Neural Engineering May; 554-557.   
  
4. Harkema S, Gerasimenko Y, Hodes J, Burdick J, Angeli C, Chen Y, Ferreira C, Rejc E, Edgerton R. (2010) Neuromuscular recovery with activity dependent plasticity after neurologic injury. The 2nd joint Spinal Cord Meeting of the Christopher and Dana Reeve Foundation (CDRF/NACTN), Internationales Forschungsinstitut fuer Paraplegiologie (IFP/EMSCI) and the International Spinal Research Trust (ISRT).   
  
5. Huang D, Oxciano P, Yan D, Harkema SJ, Krassioukov A (2012) Revisiting neurogenic shock. Blood pressure control in acute period of spinal cord injury. ISCOS London BP Aug 23.   
  
  
National   
  
1. Harkema SJ, Roy RR, Hodgson JH, Zhukovsky TK, Talmadge RT, Unguez GU, Edgerton VR. (1994) Uniform MHC profile in motor unit fibers after spinal isolation and stimulation. FASEB J 4:A112.   
  
2. Harkema SJ, Roy RR, Hodgson JA, Zhong VH, Edgerton VR. (1994) Influences of daily shortening or lengthening contractions on the functional properties of chronically inactivated soleus. Soc Neurosci 20:1204.   
  
3. Kots YM, Harkema SJ, Banks NL, Bieschke MN, Eldred E, Dobkin BH, Edgerton VR. (1995) Effects of mode of stimulation of paralyzed human muscle on force and fatigue characteristics. Soc Neurosci 21(2):1435.   
  
4. Rose DK, Harkema SJ, Dobkin BH. (1995) A comparison of body weight supported treadmill walking to overground walking in patients with acute stroke. Neurol Rep19:12.   
  
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8. Sullivan KJ, Dobkin BH, Tavakol M, Davis B, Knowlton BJ, Harkema SJ. (2001) Post-stroke cortical plasticity induced by step training. Soc Neurosci 27(PN 624.14).   
  
9. Reinkensmeyer DJ, Wynne JH, Harkema SJ. (2002) A robotic tool for studying locomotor adaptation and rehabilitation. Second Joint Meeting of the IEEE, EMBS and BMES.   
  
10. Beres-Jones JA, Joaquin RD, Lukacs RU, Harkema SJ. (2002) Co-activation of ankle agonist/antagonist muscle pairs during stepping is not related to detectable voluntary function after human spinal cord injury. Soc Neurosci 28(PN 664.1).   
  
11. Lukacs R, Gordon K, Beres-Jones J, Ferris D, Sullivan KJ. (2002) Ground reaction force patterns influence electromyographic activity during stepping in non-disabled and spinal cord injured subjects. Soc Neurosci 28(PN 664.4).   
  
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13. Harkema SJ, Beres-Jones J, Ferreira CK. (2003) Neural adaptation with locomotor training in the functionally isolated human spinal cord. Soc Neurosci 29(PN 493.10).   
  
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15. Bratta A, Schmidt Read M, VanHiel L, Botkin R, Saulino M, Harkema S, Behrman A. (2004) Implementing Locomotor Training in Acute SCI Rehabilitation: Experiences from a Multi-site Randomized Clinical Trial. 30st ASIA Annual Scientific Meeting.   
  
16. Beres-Jones J, Harkema SJ, Simonsen E, Dyhre-Poulsen P. (2004) Phase dependent modulation of H-reflex during stepping by the functionally isolated human spinal cord. Soc Neurosci 30(PN 601.6).   
  
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18. Forrest GF, Sisto SA, Kirshblum S, Wilen J, Bond Q, Bentson S, Harkema S. (2005) The effects of locomotor training on muscle activation, body composition, bone density. 51st American Paraplegia Society Annual Conference.   
  
19. Dy CJ, Dyhre-Poulsen P, Courtine G, Gerasimenko YP, Harkema SJ. (2005) Modulation of multisegmental monosynaptic responses during walking in spinal cord injured and non-disabled humans. Soc Neurosci.   
  
20. Van den Brand RJ, Krassioukov AV, Harkema SJ. (2005) Improvements in cardiovascular regulation with stand training in clinically complete spinal cord injured humans. Soc Neurosci.   
  
21. Emken JL, Wynne JH, Harkema SJ, Reinkensmeyer DJ. (2006) A robotic device for manipulating human stepping. IEEE TRO. Feb.; 22(1):185 – 189.   
  
22. Aoyagi D, Harkema SJ, Reinkensmeyer DJ, Bobrow JE. (2006) Robotic devices that can synchronously assist in naturalistic motion of the pelvis and the legs during body weight supported gait training following neurological injury. Soc Neurosci (447.17/T9).   
  
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24. Ferreira CK, Angeli CA, Harkema SJ. (2006) Neural reorganization of the functionally isolated human spinal cord occurs after step training. Soc Neurosci(555.9/BB30).   
  
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28. Aslan SC, Krassioukov A, Harkema SJ. (2007) Autonomic control of blood pressure regulation after human spinal cord injury. Soc Neurosci (417.6/CCC17).   
  
29. Ovechkin AV, Harkema SJ, Terson de Paleville DG, McKay WB. (2008) Evaluation of motor control for respiration in individuals with spinal cord injury. Soc Neurosci. (100.12/UU85)   
  
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37. Quesada PM, Angeli CA, Ferreira CK, Sanghvi MM, Willhite AM, Harkema SJ. (2009) Quantitative Evaluation of EMG Consistency during Stepping using Body Weight support on a Treadmill in individuals with Spinal Cord Injury. Kentucky Spinal Cord & Head Injury Research Trust Symposium.   
  
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39. Aslan SC, Krassioukov A, Harkema SJ. (2009) Assessing Impairment of Neural Cardiovascular Regulation After Human Spinal Cord Injury. Kentucky Spinal Cord & Head Injury Research Trust Symposium.   
  
40. Willhite AM, Smith RR, Sanghvi MM, Nitzken MJ, Ferreira CK, Angeli CA, Harkema SJ. (2009) Locomotor training improves EMG in humans and rats with spinal cord injury. Kentucky Spinal Cord & Head Injury Research Trust Symposium.   
  
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45. Ward PJ, Smith RR, Harkema SJ, Hubscher CH. (2009) Locomotor Training Improves Urodynamic Function in Spinally Contused Rats. Soc Neurosci (176.8/AA13).   
  
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47. Herrity AN, Ward PJ, Harkema SJ, Hubscher CH (2010) Body weighted supported treadmill training decreases at-level allodynia following spinal cord injury in male rates. Soc Neurosci.   
  
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52. Behrman AL, Ardolino E, Vanhiel L, Atkinson D, Lorenz D, Kern M, Harkema S (2011) Assessment of functional improvement without compensation reduces variability of outcome measures after human spinal cord injury. Soc Neurosci.   
  
53. Forrest GF, Lorenz DJ, Hutchinson K, Vanhiel L, Basso M, Sisto S, Harkema SJ (2011) Measures of balance and walking in spinal cord injury. Soc Neurosci.   
  
54. Terson De Paleville DG, Lorenz D, Harkema SJ (2011) Respiratory muscle activation during forced respiration in individuals with chronic spinal cord injury. Soc Neurosci.   
  
55. Willhite AM, Gerasimenko YP, Ferreira CK, Aslan S, Angeli CA, Edgerton VR, Harkema SJ (2011) Features of EMG activity in leg muscles induced by epidural stimulation with an array electrode in a human with a motor complete spinal cord injury. Soc Neurosci.   
  
56. Angeli CA, Edgerton V, Gerasimenko Y, Ferreira C, Harkema S (2011) Regaining voluntary control after a motor complete spinal cord injury only in the presence of spinal epidural stimulation. Soc Neurosci.   
  
57. Harkema S, Gerasimenko Y, Willhite A, Ferreira C, Meng M, Smith V, Angeli C, Edgerton VR. (2012) Neuromodulation of motor evoked potentials in leg muscles induced by epidural stimulation with an array electrode in humans with a motor complete spinal cord injury. Soc Neurosci.   
  
58. Angeli C, Edgerton VR, Gerasimenko Y, Harkema S. (2012) Improvements in level of recovery of task specific voluntary control of lower limbs with lumbosacral epidural stimulation and training after chronic complete paralysis. Soc Neurosci.   
  
59. Aslan S, Harkema S, Angeli C, Krassioukov A, Hodes J. (2012) Features of blood pressure and heart rate responses induced by the lumbosacral spinal cord epidural stimulation with an array electrode in a human with a motor complete spinal cord injury. Soc Neurosci.   
  
60. Ward PJ, Shah CN, Herrity AN, Atkinson DA, Stewart BR, Harkema SJ, Hubscher CH. (2012) Step training improves overground locomotion following moderate contusion in rats: open field scoring, kinematics, and gait analysis. Soc Neurosci.   
  
61. Herrity AN, Ward PJ, Harkema SJ, Hubscher CH. (2012) Locomotor training time affects at-level allodynia in a rodent model of spinal cord injury. Soc Neurosci.   
  
62. Forrest GF, Lorenz DJ, Hutchinson KJ, Vanhiel L, Basso D, Sisto SA, Harkema SJ. (2012) Variability conundrum for walking measures after SCI. Soc Neurosci   
  
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64. Forrest GF, Ramanujam A, Johnson E, Garbarini E, Pierce D, Harkema S. (2012) Recovery of trunk after spinal cord injury. Soc Neurosci.   
  
65. Grossman RG, Fehlings MG, Frankowski RF, Burau KD, Chow DS-L, Teng Y, Toups EG, Wilson JR, Harrop JS, Aarabi B, Shaffrey CI, Boakye M, Harkema SJ, Johnson MM, Guest JD. (2012) A phase I multicenter trial to investigate the safety and pharmacokinetics profile of riluzole in the treatment of traumatic spinal cord injury. Soc Neurosci.   
  
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69. Sayenko D, Atkinson D, Dy C, Rejc E, Gurley K, Smith V, Ferreira C, Angeli C, Edgerton R, Gerasimenko Y, Harkema S. (2013) Location-specific effects of transcutaneous lumbar spinal stimulation on the recruitment of proximal and distal leg muscles in healthy individuals. Soc Neurosci.   
  
70. Forrest, GF, Ramanujam, A, Johnson, E, Garbarini, E, Harkema, SJ. (2013) Muscle atrophy after SCI and the effect on motor pool activation. Soc Neurosci.   
  
71. Rejc E, Angeli C, Harkema SJ. (2014) Lumbosacral spinal cord epidural stimulation enables full weight bearing standing in motor complete paraplegics. Soc Neurosci.   
  
72. Montgomery LR, Herrity AN, Harkema SJ, Hubscher CH. (2015) Exercise-dependent modulation of neuro-urolgical health following spinal cord injury. Soc Neurosci.   
  
73. Hubscher C, Herrity A, Montgomery L, Willhite A, Angeli C, Harkema S. (2015) Task-specific training-based rehabilitation improves bladder outcomes following human spinal cord injury. Soc Neurosci.   
  
74. Wang S, Aslan S, Ferreira C, Gunter J, Wyles D, Wang S, Harkema S. (2015) Characterizing cardiovascular autonomic dysfunction in individuals with spinal cord injury. Soc Neurosci.   
  
  
75. Rejc E, Angeli C, Harkema S. (2015) Activity-dependent improvement of full weight-bearing standing with epidural stimulation in chronic complete paraplegics. Soc Neurosci.   
  
76. Willhite AM, Jung K-J, Settipalle N, Wellman B, Lorenz D, Boakye M, Harkema SJ. (2015) Comparison of cervical cerebrospinal fluid flow between healthy participants and persons with spinal cord injury using cine velocity-mapping MRI. Soc Neurosci.   
  
77. Angeli C, Rejc E, Chen Y, Harkema S. (2015) Characteristics of responses based on electrode and frequency selection during epidural stimulation in humans following SCI. Soc Neurosci.   
  
78. Mink A, Sayenko D, Atkinson D, Gerasimenko Y, Harkema S. (2015) Identifying supraspinal influences on lumbosacral motor neuron excitability after spinal cord injury: Effects of galvanic vestibular stimulation and acoustic startle. Soc Neurosci.   
  
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82. Herrity A, Hubscher C, Montgomery L, Willhite A, Angeli C, Harkema S. (2016) Improvements in bladder, bowel and sexual outcomes following task specific training in human spinal cord injury. Soc Neurosci.   
  
83. He L, Willhite A, Harkema S, Rejc E. (2016) Structural and functional changes in lower limb skeletal muscle after chronic complete spinal cord injury. Soc Neurosci.   
  
84. Ditterline B, Wang S, Aslan S, Harkema S. (2016) Cardiovascular regulation post-epidural stimulation cervical spinal cord injury. Soc Neurosci.   
  
85. Rejc E, Angeli C, Atkinson D, Harkema S. (2016) Activity-based training with spinal cord epidural stimulation promoted the recovery of lower limb motor function independent from spinal stimulation in chronic motor complete paraplegic. Soc Neurosci.   
  
86. Hubscher C, Herrity A, Montgomery L, Willhite A, Angeli C, Harkema S. (2016) Targeting improvements in bladder function with epidural stimulation after human spinal cord injury. Soc Neurosci.   
  
87. Angeli C, Harkema S. (2016) Lumbosacral spinal cord epidural stimulation enables step like patterns during BWST stepping in motor complete paraplegics. Soc Neurosci.   
  
88. Aslan S, Harkema S, Ovechkin A. (2016) Cardiorespiratory coupling in individuals with spinal cord injury. Soc Neurosci.   
  
89. Wang S, Aslan S, Lorenz D, Ovechkin A, Hirsch G, Ditterline B, Harkema S. (2016) Cardivascular regulation in individuals with chronic motor complete and incomplete spinal cord injury. Soc Neurosci.   
  
90. Atkinson, D, Harkema S, Trimble S, Mendez L, Behrman A. (2016) Functional neurophysiological assessment of volitional motor control following pediatric spinal cord injury. Soc Neurosci.   
  
  
  
  
PRESENTATIONS   
  
International   
  
1998 2nd International Congress on Neurorehabilitation, Washington, DC. “Human lumbar spinal cord generates appropriate motor output associated with weight supported stepping.”   
  
1999 National Rehabilitation Center for the Disabled, Tokorozawa, Japan. “Human lumbosacral spinal cord responds to limb loading during stepping.”   
  
International Society of Posture and Gait, Waterloo, Ontario, Canada. “Can neural mechanisms mediated in the human spinal cord be utilized to improve locomotor recovery after human spinal cord injury?”   
  
2000 Spinal Regeneration and Repair, 5th Paralympic Scientific Congress, Sydney, Australia. “Sensory processing by the human lumbosacral spinal cord during locomotion: Implications for recovery of walking after neurologic injury.”   
  
Laufband Therapy: Spinal Cord Damage, Stroke, Brain Damage, Multiple Sclerosis, and Orthopedic Disorders. Karlsbad-Langensteinbach, Germany. “Locomotor training modulates sensory processing and clonus at the level of the human lumbosacral spinal cord during locomotion.”   
  
2002 19th Scientific Congress of the Spanish Society of Paraplegia, 1st Iberian Congress of Paraplegia, 8th Symposium of Nursing in Rehabilitation, and 1st National Meeting of SCI Patients, Oporto, Portugal. “Locomotor training promotes sensory processing by the spinal cord to facilitate recovery of walking after spinal cord injury.”   
  
First Joint Symposium of the National and International Neurotrauma Societies, Tampa, FL. “Recovery after spinal cord injury: Human and animal studies.”   
  
2003 Making Connections: New South Wales Premier’s Forum on Spinal Cord Injury and Connections, New South Wales, Australia “Locomotor Training using body weight support on a treadmill for recovery of function after spinal cord injury.”   
  
2004 Spinal Cord Research Centre Symposium, Winnipeg, Canada. "Locomotor training after human spinal cord injury for the recovery of walking,” and "Interneuronal properties of the functionally isolated human spinal cord."   
  
2005 International Union of Physiological Sciences Symposium, San Diego, CA. “Functional interneuronal plasticity of the functionally isolated human spinal cord.”   
  
35th Congress of the International Union of Physiological Sciences (IUPS), San Diego, CA. “Long Term Plasticity and Spinal Cord Injury.”   
  
2006 5th Forum of European Neuroscience Societies (FENS), Vienna, Austria “Spinal locomotor networks: basic properties and applications to neurorehabilitation after injury.”   
  
Wenner-Gren Foundations International Symposium: “Networks in Motion.” Stockholm, Sweden. “Recovery of locomotor functions in humans after SCI.”   
  
Symposium on Advances in Clinical Neurophysiology of Locomotion, Ljubljana, Slovenia. “From Denervated Muscle to Neurocontrol of Locomotion”   
  
2nd National Spinal Cord Injury Conference: “The Evolving Architecture of Research, Patient Care and Education” Toronto, Canada. “Locomotion Training in Spinal Cord Injury Rehabilitation.” “Locomotion Training for Recovery after Spinal Cord Injury: the Evidence, the Myths and the Reality.” “Clinical Networks for Improving Spinal Cord Injury Rehabilitation.”   
  
2007 State of the Art in Spinal Cord Injury Research and Clinical Application, Ittingen, Switzerland. “Functional organization of the isolated human spinal cord.”   
  
2008 University of Toronto: “Brain Matters Conference.” Ontario, Canada. “Activity-Based Therapy and Locomotor Training in relation to Ataxia.”   
  
Spinal Cord: Function, Repair and Rehabilitation after Injury, Montreal, Canada “Activity-dependent spinal cord plasticity: Translation to human functional recovery after SCI.”   
  
The Twenty-First Chinese Spinal Cord Injury Academic Annual Meeting and The Third International Spinal Cord Injury Treatments and Trials Symposium, Beijing, China. “The role of activity-dependent plasticity in rehabilitation.”   
  
2009 International NACTN NOA Task Force Meeting, Louisville, KY. “Use of Brain Motor Control Assessment for detecting neurologic recovery.”   
  
2010 The 2nd Joint Spinal Cord Meeting of the Christopher and Dana Reeve Foundation (CDRF/NACTN), Internationales Forschungsinstitut fuer Paraplegiologie (IFP/EMSCI) and the International Spinal Research Trust (ISRT), Ittingen, Switzerland. “Neuromuscular recovery with activity dependent plasticity after neurologic injury.”   
  
2011 International Symposium on Autonomic Dysfunctions following Spinal Cord Injury, Vancouver, British Columbia. “Functional recovery in individuals with chronic incomplete spinal cord injury with intensive activity-based rehabilitation.”   
  
International Neurorehabilitation Symposium 2011, Zurich, Switzerland “Strategies for Neuromuscular Recovery after Spinal Cord Injury.”   
  
The 13th Spinal Research Network Meeting, International Spinal Research Trust, London, England “A continuum of strategies targeted at neuroplasiticity recovery after neurologic injury"   
  
2012 Interdependence 2012, Vancouver, BC, “Strategies for neuromusclular recovery after spinal cord injury”   
  
Swiss Neurorehabilitation Society Congress, Montreux, BC, “Sensory Control of Standing & Stepping Enabled by Epidural Stimulation After a Human Motor Complete Spinal Cord Injury”   
  
2013 Conference of Neurology, Santiago De Cuba, “Acute & Chronic Effects of Spinal Epidural Stimulation & Rehabilitation Following A Motor Complete Injury”   
  
15th Spinal Research Network Meeting, London, “Effects of Spinal Epidural Stimulation and Training Following a Motor Complete Injury”   
  
2014 ANZSCoS 2014 Annual Scientific Meeting, Auckland, NZ, “What can we learn about SCI interventions for function, health, and quality of life form new scientific evidence?”   
  
ANZSCoS 2014 Annual Scientific Meeting, Auckland, NZ, “Effects of spinal epidural stimulation and intense training following motor complete spinal cord injury”   
  
2016 Wings for Life Meeting, Salzburg, Austria “The Big Idea Study”   
  
  
National   
  
1998 Neurotrauma Society 16th Annual Symposium, Los Angeles, CA. “Activity dependent plasticity after human spinal cord injury.”   
  
Departments of Neuroscience and Physical Therapy, University of Florida, Gainesville, FL. “Activity dependent plasticity after human spinal cord injury.”   
  
2000 American Physical Therapy Association, Neurology Annual Meeting, New Orleans, LA. “The control of locomotion: Evidence from human models and principles of locomotor training.”   
  
2000 G. Heiner Sell Lecture Keynote Speaker. American Spinal Injury Association Annual Scientific Meeting, Chicago, IL. “Sensory processing by the human lumbosacral spinal cord during locomotion: Implications for recovery of walking after neurologic injury.”   
  
The New York Society of Physical Medicine and Rehabilitation, New York, NY.“Locomotor training for the recovery of walking after spinal cord injury.”   
  
2001 Rehabilitation Hospital of the Pacific, Honolulu, HI. “Techniques to enhance motor control after stroke and spinal cord injury.”   
  
American Spinal Injury Association Annual Scientific Meeting, Long Beach, CA. “Locomotor training using body weight support on a treadmill for the recovery of walking after SCI.”   
  
2002 Spinal Cord Injuries Conference, La Jolla, CA. “Locomotor training: Implications for the recovery of walking.”   
  
The Spencer Foundation Spinal Cord Injury Research Conference, Durham, NC. “Locomotor training and robotics for the recovery of walking after spinal cord injury.”   
  
Ohio American Physical Therapy Association 67th Annual Conference, Columbus, OH. “Sensory processing by the spinal cord: implications for the recovery of walking.”   
  
California Physical Therapy Association Annual Conference, Pasadena, CA. “Mechanisms of recovery of walking induced by locomotor training.”   
  
American Paraplegia Society 48th Annual Conference Program, Las Vegas, NV. “Locomotor training modulates sensory processing and clonus at the level of the human lumbosacral spinal cord during locomotion.”   
  
2003 Fourth Annual California Spinal Cord Injury/Neural Regeneration Consortium, Roman Reed Meeting, Reeve-Irvine Research Center, University of California, Irvine. “Activity dependent plasticity after human spinal cord injury.”   
  
Spinal Cord Conference and Training, Long Beach, CA. “Locomotor training: Implications for recovery of walking after neurologic injury.”   
  
2003 Frontiers in Spinal Cord Regeneration, Kentucky Spinal Cord Injury Research Center, Louisville, KY. “Locomotor training after human spinal cord injury.”   
  
2004 Christopher Reeve Paralysis Foundation Spinal Cord Symposium, Chicago, IL. “The effects of stand training on standing, stepping, and bone mineral density after clinically complete spinal cord injury.”   
  
California Spinal Cord Injury/Neural Regeneration Consortium, Roman Reed Research Meeting, Reeve-Irvine Research Center, Irvine, California. “Activity-dependent plasticity after human spinal cord injury.”   
  
2004 National Multiple Sclerosis Society Chapter Meeting, Pasadena, CA. “Recovery of walking using locomotor training in individuals with multiple sclerosis.”   
  
Keynote Speaker, Mary Free Bed Hospital and Rehabilitation Center 9th SCI Symposium, Grand Rapids, MI. “Locomotor Training: Principles and Practice.”   
  
2005 Spinal Cord and Brain Injury Neuro-Rehabilitation Symposium Spinal Cord Injury Association of Kentucky Summit, Lexington, KY. “Activity-based interventions recovery of function after neurologic injury.”   
  
The 23rd Annual National Neurotrauma Symposium, Washington, DC. “Weight-Support Rehabilitation Trials for SCI.”   
  
Stepping Forward-Staying Informed: Understanding the Science Impacting the Politics Weighing the Issues of Spinal Cord Injury Research. The New England Regional Spinal Cord Injury Center, Boston, MA. “Translation of basic research to clinical rehabilitation strategies for recovery of function after spinal cord injury.”   
  
2006 State of the Science Workshop (SOS) on Functional Restoration for the Stroke Survivor: Informing the Efforts of Engineers, La Jolla, CA. “Lower Extremity Rehabilitation.”   
  
16th Annual Neuroscience Day. Louisville, KY “Activity Dependent Plasticity after Spinal Cord Injury.”   
  
14th Louis E. Alley Memorial Lecture. Iowa City, IA. “Recovery of Functions and Health after Neurologic Injury.”   
  
“Stepping Forward - Staying Informed”, Boston, MA. “Translation of Basic Research to Clinical Rehabilitation Strategies for Recovery of Function after Spinal Cord Injury.”   
  
The Tuttleman Family Foundation: Dr. Guy Fried Educational Seminar, Philadelphia, PA. “Rewiring the Neural Network: Activity Based Rehabilitation.”   
  
2006 2nd Annual Consumer Conference: “Stepping Forward Staying Informed”, Boston, MA. “Scientific Evidence for Activity-based Therapies for Recovery After Spinal Cord Injury.”   
  
67th Annual Assembly: “American Academy of Physical Medicine & Rehabilitation Physicians Adding Quality to Life.” Honolulu, Hawaii “Locomotor Training Following SCI: Myth and Reality.”   
  
2007 Jefferson County Legislative Delegation. Louisville, KY. “Activity-Dependent Recovery after SCI.”   
  
ACRM-ASNR Joint Educational Conference: “Rehabilitation Research Without Borders.” Washington, D.C. “Contemporary Evidence-based Research in Spinal Cord Injury Rehabilitation” and “Update on Activity-based Therapy and Locomotor Training.”   
  
Kentucky Spinal Cord Injury Research Center: “International Workshop on Epidural Stimulation.” Louisville, KY. “International Workshop on Epidural Stimulation for the Recovery of Standing and Walking.”   
  
2008 Kentucky Spinal Cord Injury Research Center Seminar. Louisville, KY. “The Continuum of Care and Cure for Individuals with Spinal Cord Injury.”   
  
Department of Defense Meetings: “Translational Research for Rehabilitation of Military Personnel with Traumatic Brain Injury.” Arlington, VA. “Translation of Basic Research to Clinical Rehabilitation Strategies for Recovery of Function After Spinal Cord Injury and Brain Injury.”   
  
CDRF Spinal Cord Symposium: “A dialogue between grant holders and the community they serve.” Atlanta, GA. “Establishing the NeuroRecovery Network: Multi-site Rehabilitation Centers that Provide Activity-Based Therapies and Assessments for Neurologic Disorders.”   
  
54th Annual American Paraplegia Society Conference. Kissimmee, FL. “Activity-based Therapy after SCI: Impact on Neural Plasticity and Functional Recovery: Part 1.”   
  
Interim Joint Committee on Health and Welfare Families and Children Subcommittee. University of Louisville. “Translational Research and Activity-Dependent Plasticity.”   
  
Spinal Cord Symposium: The Road Wide Open- Rehab, Research and Recovery. Mary Free Bed Rehabilitation Hospital, Grand Rapids, Michigan. “Evidence and Application for Activity-Based Therapy after Neurologic Injury.”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. “Activity based interventions following Neurologic Injury: Bed to Bench side.”   
  
The Kenneth L. Estabrook Distinguished Research Scientist Lectureship, West Orange, NJ. “Activity-Based Therapy: Evidence and Application to Rehabilitation.”   
  
2009 Association of Academic Physiatrists: AAP Technology Advances in SCI Symposium, Colorado Springs, CO. “Body Weight Supported Gait Training in Clinical Practice.”   
  
Reeve-Irvine Medal Symposium: Stepping Toward a New Restorative Neuroscience, University of California, Irvine. “Activity-Based Therapy: Evidence and Application to Rehabilitation.   
  
ASIA Symposium: Spinal Cord Injury - From the Bench to Bedside, Dallas, TX “Outcome Assessment in Chronic Setting.”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. "Evolving Role of Activity-Dependent Plasticity on Recovery of Function, Health and Quality of Life."   
  
University of Michigan, Department of Physical Medicine and Rehabilitation, Spinal Cord Injury Model System Seminar. “Translation of Activity-Dependent Plasticity to Physical Rehabilitation Medicine.”   
  
2010 USSOCOM Care Coalition Conference, Ft. Walton, FL “Advances in translating scientific evidence to clinical practice after neurologic injury: the NeuroRecovery Network.”   
  
Dot Patterson Stroke Symposium, Louisville, KY. “Locomotion Therapy after a Stroke.”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. "Spinal Cord Injury on the Way to Translation."   
  
2010 Annual Meeting of the Academy of Spinal Cord Injury Professionals, Las Vegas, NV. “Neuromuscular Recovery with Activity Dependent Plasticity After Neurologic Injury .”   
  
2010 Reeve-Irvine Medal Symposium, Dana Point, CA. “Sensory Control of Standing and Stepping Enabled By Epidural Stimulation After a Human Motor Complete Spinal Cord Injury.”   
  
Society for Neuroscience 40th Annual Meeting, San Diego, CA. “Sensory Control of Standing and Stepping Enabled By Epidural Stimulation After a Human Motor Complete Spinal Cord Injury.”   
  
2010 Spinal Cord Symposium, Chandler, AZ, “Functional Recovery In Individuals With Chronic Incomplete Spinal Cord Injury With Intensive Activity-Based Rehabilitation.”   
  
2011 Paralyzed Veterans Administration, Orlando, FL, "Activity-based intervention for recovery of health and function after injury."   
  
Popular Mechanics Breakthrough Conference 2011, New York, NY (The Machine-Human Interface Panel)   
  
Neural Prosthesis Seminar Series, Cleveland FES Center, Cleveland, OH “A continuum of strategies targeted at neuroplasticity for recovery after neurologic injury”   
  
North American Neuromodulation Society Annual Meeting, Las Vegas, NV “Spinal cord Stimulation & Spinal Cord Injury”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. “Back through the future: A perspective of KSCIRC Rehabilitation and Research and how it shapes my vision as to where it should go”   
  
2012 Boston Univ Sch of Med, Boston, MA, “A Continuum of Strategies Targeted at Neuroplasticity for Recovery after Neurologic Injury”.   
  
American College of Sports Medicine Annual Meeting, San Francisco, CA, “Neural modulation of spinal circuits in humans with spinal cord injury”   
  
Downtown Rotary Club, Louisville, KY, “Locomotor Training: Helping Patients Walk Away from Paralysis”   
  
American Physical Therapy Association Section on Research Retreat 2012, Beaver Hollow, NY, “Evidence for activity-based interventions for recovery after neurologic injury: from a science to practice”   
  
American Society of Biomechanics Meeting, Gainesville, FL, “Functional Recovery in Individuals with Chronic Incomplete Spinal Cord Injury with intense Activity-Based Rehabilitation”   
  
Academy of Spinal Cord Injury Professionals, Inc., Las Vegas, NV, “Epidural Stimulation of the Lumbosacral Spinal Cord: Voluntary Movement, Standing and Assisted Stepping after Motor complete paraplegia”   
  
Neurorehabilitation Summit CME Course, Mayo Clinic, Rochester, MN, “Advances in Neuromuscular Recovery after Neurologic Injury and Disease”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. “KSCIRC Human and Translational Research”   
  
2013 Burke Medical Research Institute, White Plains, NY, “Activity Base Therapies in Spinal Cord Injury: Clinical Practice & Ongoing Research”   
  
New York Presbyterian Hospital, Weill-Cornell, New York, NY, “Translation of Scientific Evidence to Clinical Practice for Neurologic Recovery”   
  
Jefferson Community & Technical College, Louisville, KY, “Neuroplasticity & Its Application to Recovery from Paralysis”   
  
American Spinal Injury Association (ASIA) 40th Annual Scientific Meeting, Chicago, IL, “NACTN and NRS: Advancing SCI Research and Translation of Evidence into Practice”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. “State of Translational Research and Neurological Surgery”   
  
Eli Lilly and Company, Indianapolis, IN, “ Neural plasticity induced by epidural stimulation combined with potential pharmaceutical interventions for recovery from paralysis”   
  
15th International Symposium on Neural Regeneration, Pacific Grove, CA, “Neuromodulation strategies for neuromuscular recovery after spinal cord injury”   
  
2014 4th Annual SCI Research Symposium at Rutgers, State University of New Jersey, Newark, NJ, “The Latest Update on Epidural Stimulation and Locomotor Training in Persons with Spinal Cord Injury”   
  
13th Annual Neurotrauma Symposium, San Francisco, CA, “Neuromodulation and Rehabilitation after SCI”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. “Update on Harkema Lab”   
  
2015 AAP Annual Meeting, San Antonio, Texas. “Reawakening limbs: Advances in Stimulation and Locomotor Training following Spinal Cord Injury”   
  
Kentucky Spinal Cord Injury Research Center Seminar Series, Louisville, KY. "Helmsley Restorative Medicine Center: An Interdisciplinary, University Wide Program to Promote Collaborative Approaches to Medical Research for Spinal Cord Injury"   
  
  
2016 AANS Tator Lecture, Chicago, IL. “The effects of Epidural Stimulation of function and health after severe SCI”   
  
Lilliputian Society Meeting, Louisville, KY. “Effects of Spinal Epidural Stimulation and Training following a Motor Complete Spinal Cord Injury”   
  
IV Step, Columbus, OH. “Prediction of Outcomes using Movement System Diagnoses”   
  
2016 Barrow Spinal Cord Injury Symposium, Phoenix, AZ. “Neuromodulation and Rehabilitation after SCI”   
  
2017 2015 Barrow Spinal Cord Injury Symposium, Phoenix, AZ. “Effective neuromodulation on behavior and physiological responses after spinal cord injury”   
  
PM&R Spinal Cord Injury Conference, Hershey, PN. “Epidural Stimulation for Functional Recovery after SCI”   
  
OSU SCI Summit, Columbus, OH. “Epidural Stimulation in chronic SCI”   
PATENTS   
  
1. A Bejczy, K Day, R Edgerton, S Harkema, J Weiss. Method, Apparatus and System for Automation of Body Weight Support Training (BWST) of Biped Locomotion Over a Treadmill Using a Programmable Stepper Device (PSD) Operating Like an Exoskeleton Drive System From a Fixed Base, Patent # 6,666,831 B1 (United States), December, 2003.   
  
2. J Bobrow, R Edgerton, S Harkema, D Reinkensmeyer, C Yu Wang. Robotic Gait Rehabilitation by Optimal Motion of the Hip, Patent # 7,125,388 B1 (United States), October, 2006.   
  
3. S El-Alami, K Gordon, S Harkema, B Svendesen. Closed-Loop Force Controlled Body Weight Support System, Patent # 7,381,163 B2 (United States), June, 2008.   
  
4. YC Tai, M Nandra, J Burdick, Da Rodger, A Fong, BR Edgerton, R Roy, Y Gerasimenko, I Lavrov, S Harkema, C Angeli. Parylene-based microelectrode array implant for spinal cord stimulation, Patent # 8805542 (United States), August, 2014.   
  
5. J Burdick, YC Tai, J Naber, R Keyton, VR Edgerton, R Roy, YGerasimenko, S Harkema, J Hodes, C Angeli, M Nandra, T Desautels, S Upchurch, D Jackson, N Terrafranca. A neurostimulator devices and systems for use with groups of electrodes placed within a subject’s body, Publication # 20150231396 (United States), August 2015   
  
6. VR Edgerton, J Burdick, R Roy, I Lavrov, Y Gerasimenko, S Harkema, J Hodes, YC Tai, M Nandra. High Density Epidural Stimulation for Facilitation of Locomotion Recover After Spinal Cord Injury, Patent # 9101769 (United States), August, 2015.   
  
7. A Barriskill, S Simcox, R Flesher, S Harkema. Supine Cycle, Application (United States), January 2016.   
  
  
RESEARCH FUNDING   
  
ACTIVE FUNDING:   
  
10/01/2004 – Center for Disease Control/Christopher and Dana Reeve Foundation NRN-2016   
11/14/2017\* “Development of NeuroRecovery Network (NRN) for functional, health and quality of life improvements after neurologic injury.”   
Principal Investigator   
Direct Costs: $11,748,590   
The major goal of this project is to develop specialized centers that provide standardized activity-based rehabilitation care based on current scientific and clinical evidence for people with spinal cord injury and other selected neurological disorders.   
  
\* The NRN award is underwritten by a Cooperative Agreement with the Centers for Disease Control and Prevention and Christopher & Dana Reeve Foundation, which is renewed annually based upon satisfactory programmatic progress and reporting.   
  
04/01/2011 - National Institutes of Health (NCRR)   
07/31/2016 “Mechanisms of plasticity and repair after SCI”   
Principal Investigator Core F   
Direct Costs: $2,179,413   
Human Translational Studies Core: $346,424   
This grant will support our Centers of Biomedical Research Excellence (COBRE) Core Facilities andextend their availability to other members of the University of Louisville neuroscience community. Dr. Harkema is the Director of the Human Translational Studies Core.   
  
The major goal of this project is to determine whether CSF flow velocity is related to neurological & functional improvement in acute and chronic SCI, and to determine if C-MR provides and objective measure of quantitative functional continuity of the spinal cord. Also determine if current surgical interventions adequately decompress the spinal cord allowing restoration of normal flow post-operatively.   
  
01/01/2012- National Institute on Disability and Rehabilitation Research   
09/30/2016 Spinal Cord Injury Model Systems   
Co-Investigator   
Direct Costs: $1,057,140   
The major goal of this research is to provide an integrated multidisciplinary system of rehabilitation care specifically designed to meet the needs of individuals with SCI.   
  
02/15/2012- Leona M. & Harry B. Helmsley Charitable Trust   
06/30/2018 “Recovery of Function, Health and Quality of Life for People with Paralysis”   
Principal Investigator   
Direct Costs: $12,000,153   
The major goal is to restore motor function and quality of life in patients with spinal cord injury using epidural stimulation and locomotor training therapies.   
  
08/01/2013- Craig H. Nielsen Foundation   
10/31/2018 “Recovery of cardiovascular function with epidural stimulation after human spinal cord injury.”   
Principal Investigator   
Direct Costs: $909,090   
The major goal of this research is to demonstrate that epidural stimulation (ES) can be used to recover significant levels of autonomic control of cardiovascular and respiratory function as well as the ability to voluntarily control leg movements below the injury level.   
  
10/01/2014- Kosair Charities Trust   
09/30/2021 “Pediatric Neurorecovery, Rehabilitation, and Research”   
Co-Investigator   
Direct Costs: $6,636,363   
This funding will establish a Kosair Charities Center for Excellence in Pediatric Neurorecovery, Rehabilitation, and Research to transform the lives of children affected by spinal cord injury, brain injury, cerebral palsy, and other neurological disabilities.   
  
09/23/2014- National Institutes of Health   
06/30/2019 “Effects of activity dependent plasticity on recovery of bladder and sexual function after human spinal cord injury”   
Co-Principal Investigator   
Direct Costs: $409,812   
The major goal of this study is to examine the effects of activity dependent plasticity on recovery of bladder and sexual function after human spinal cord injury.   
  
09/23/2014- National Institutes of Health   
05/31/2019 “Spinal Epidural Electrode Array to Facilitate Standing and Stepping After Spinal Cord Injury”   
Co- Investigator   
Direct Costs: $207,500   
The major goal of this research is to investigate the combined effects of stand and step (locomotor) training with electrical stimulation of the spinal cord in individuals who have had a complete SCI.   
  
09/30/2014- USAMRAA   
09/30/2017 “Testosterone Combined with Electrical Stimulation and Standing: Effect on Muscle and Bone”   
Co- Investigator   
Direct Costs: $109,494   
The major goal of this research is to investigate the effect of testosterone combined with stand and step (locomotor) training with electrical stimulation of the spinal cord on muscle and bone in individuals who have had a spinal cord injury.   
  
12/15/2015- Leona M. & Harry B. Helmsley Charitable Trust   
12/14/2019 “Helmsley Center for Restorative Medicine”   
Principal Investigator   
Direct Costs: $13,636,363   
The major goal is to support the establishment of a collaborative restorative medicine center focused on SCI. This grant will provide funding for research projects as well as support core facilities and extend their availability to other members of the University of Louisville research community. Dr. Harkema is the Director of the Center.   
  
8/15/2016- New York State Spinal Cord Injury Research Program   
8/14/2021 “Tethered Pelvic Assist Device (TPAD) and Epidural Stimulation for Recovery of Standing in SCI”   
Co-Investigator   
Direct Costs: $1,166,667   
The major goal of this research is to improve the effectiveness of stand/balance training during SCI rehabilitation using a cable-driven robotic device by providing active control of balance to the subjects during early training and controlled perturbations throughout training, quantitatively measuring forces applied on the subjects and their motion response, freeing up multiple physical therapists from the labor intensive task of providing external assistance to the subjects during training, and allowing the clinical staff to concentrate on higher level aspects of the treatment session.   
  
09/30/2015- U.S. Army Med Research Acq Activity   
09/29/2018 “Improving urogential function with step training after spinal cord injury”   
Co- Investigator   
Direct Costs: $500,000   
The major goal of this research is improving urogential function with step training after spinal cord injury   
  
3/23/2017- Christopher and Dana Reeve Foundation   
3/22/2022 “Task and physiological specific stimulation for recovery of autonomic function, voluntary movement and standing using epidural stimulation and training after severe spinal cord injury”   
Principal Investigator   
Direct Costs: $8,565,304   
  
The major goal of this research is to determine the level of functional gain that can be achieved in voluntary control of movements below the level of injury and autonomic nervous system function as a result of activation of spinal circuits with epidural stimulation with or without task-specific training in humans with complete motor paralysis.   
  
  
  
  
COMPLETED GRANTS:   
  
03/01/1998 – National Institute of Health (NICHD) 1 U01 HD37439   
12/31/2004 “Locomotor therapy trial for spinal cord injury.”   
Co-Investigator   
Direct Costs: $295,451   
  
05/01/1998 – National Institute of Health (NINDS) P01 NS016333   
04/30/2008 “Neuromuscular plasticity: recovery after spinalization.”   
Principal Investigator   
Project V, “Neuromuscular plasticity after spinal cord injury.”   
Direct Costs: $203,421   
  
06/15/2001 – New Jersey Commission on Spinal Cord Research 02-3021-SCR-N-0   
06/14/2004 "Locomotion training using body weight support on a treadmill and manual assistance."   
Co-Investigator   
Direct Costs: $11,295   
  
06/01/2002 – National Institute of Health (NIST) 00-00-4906   
05/31/2005 "Development of a robotic step training device for teaching individuals with neurologic impairments to walk."   
Principal Investigator   
Direct Costs: $420,567   
  
11/01/2002 – National Institute of Health (RERC) 2022-03-05   
10/31/2007 “Development of gait training robotic assist device.”   
Principal Investigator   
Project V: Direct Costs: $77,995   
  
07/01/2003 – National Multiple Sclerosis Society PP0927   
06/30/2004 “Trial of Locomotor Training using body weight support on a treadmill in persons with Multiple Sclerosis.”   
Co-Investigator   
Direct Costs: $39,847   
  
01/01/2004 – Roman Reed Spinal Cord Injury Research Fund of California 030-495-84   
12/31/2005 “Activity dependent plasticity after human spinal cord injury.”   
Principal Investigator   
Direct Costs: $257,452   
  
09/15/2004 – National Institute of Health (NINDS) R01 NS049954-05   
04/30/2010 “Novel imaging and physiological evaluation of human SCI”   
Principal Investigator   
Direct Costs: $1,038,206   
  
01/15/2005 – KY Spinal Cord & Head Injury Research Trust   
01/14/2011 “Cine flow MRI in human spinal cord injury”   
Principal Investigator   
Direct Costs: $240,768   
  
04/01/2005 – National Institute of Health (NINDS) R01 NS 04209   
03/31/2010 “Plasticity of human spinal neural networks after injury”   
Principal Investigator   
Direct Costs: $837,449   
  
01/01/2006 – New York State Spinal Cord Injury Research Program SCIR04-24   
12/31/2008 “Sensorimotor control of spinal locomotor centers in human spinal cord injury”   
Co-Investigator   
Direct Costs: $124,432   
  
01/15/2006 – Kentucky Spinal Cord Head & Injury Research Board 5-7   
01/14/2010 “Recovery of cardiovascular function after human spinal cord injury.”   
Principal Investigator   
Direct Costs: $272,719   
  
05/01/2006– National Institute of Health (NINDS) R01 NS36854   
04/30/2008 “Neuromuscular plasticity after spinal cord injury.”   
Principal Investigator   
Direct Costs: $955,893   
  
  
  
11/15/2006 – New Jersey Commission on Spinal Cord Research 07-30630SCR-E-0   
12/31/2009 “Standing retraining combined with functional electrical stimulation in incomplete spinal cord injury.”   
Co-Investigator   
Direct Costs: $111,007   
  
12/15/2006 – Christopher and Dana Reeve Foundation HA2-0205-2   
12/31/2009 "The effects of stand training on standing, stepping and bone mineral density after clinically complete spinal cord injury.”   
Principal Investigator   
Direct Costs: $136,180   
  
06/01/2007 – Department of Defense/Christopher and Dana Reeve Foundation CTN9   
05/31/2016 “North American Clinical Trials Network.”   
Co-Principal Investigator   
Direct Costs: $766,245   
  
07/01/2008 – ICORD, University of British Columbia UBC #1TR69086   
06/30/2010 “Autonomic standards for the evaluation of individuals with SCI.”   
Co-Investigator   
Direct Costs: $7,954   
  
09/01/2008 – Craig H. Neilsen Foundation 83492   
08/31/2010 “United States multi-center study to assess the validity and reliability of the Spinal Cord Independence Measure (SCIM III).”   
Co-Investigator   
Direct Costs: $6,700   
  
09/01/2008 – National Institute of Health (NIBIB) R01 EB007615   
08/31/2013 “Spinal epidural electrode array to facilitate standing & stepping after spinal cord injury.”   
Program Director: V. Reggie Edgerton, PhD   
Co-Investigator   
Direct Costs: $725,262   
  
06/01/2010 – Paralyzed Veterans Administration/University of British Columbia   
05/31/2012 “Autonomic Dysreflexia, and Health Care Practitioners’ Knowledge”   
Principal Investigator: A. Krassioukov   
Co-Investigator   
Direct Costs: $7,700   
  
09/01/2010 – Department of Defense/Christopher & Dana Reeve Foundation   
06/30/2013 “Natural progression and recovery of cardiovascular parameters following traumatic spinal cord injury”   
Principal Investigator   
Direct Costs: $41,820   
  
  
  
12/01/2010 - Department of Defense/Christopher & Dana Reeve Foundation   
11/30/2011 “Brain Motor Control Assessment”   
Principal Investigator   
Direct Costs: $50,000   
  
05/15/2011- Christopher & Dana Reeve Foundation   
05/14/2013 “Facilitation of Standing and Stepping following SCI with Epidural Stimulation”   
Principal Investigator   
Direct Costs: $418,822   
  
09/01/2010 – Department of Defense/University of Florida   
10/29/2013 “A new measure of neurological and behavioral recovery after SCI”   
Principal Investigator: Behrman/Basso/Belozo   
Co-Investigator   
Direct costs: $46,098   
  
08/15/2011- Department of the Defense   
08/14/2014 “Exercise dependent modulation of neurological health following spinal cord injury”   
Co-Investigator   
Direct Costs: $466,099   
  
01/15/2012- KSCHIRT   
01/14/2015 “Neurophysiological assessment of residual supraspinal input after human spinal cord injury”   
Principal Investigator   
Direct Costs: $180,909   
  
07/01/2011- Craig H. Neilsen Foundation   
12/31/2015 “An activity-dependent rehabiliation model to improve bone and muscle for sub acute to chronic SCI: Intensive standing training with electrical stimulation.”   
Co-Investigator   
Direct Costs: $95,959   
  
07/01/2013- Craig H. Neilsen Foundation   
06/30/2016 “Responsiveness of the Capabilities of Upper Extremity Test (CUE-T)”   
Collaborator   
Direct Costs: $57,500   
  
01/01/2014- Craig H. Neilsen Foundation   
12/31/2016 “Health Outcomes after Locomotor Training across the NeuroRecovery Network”   
Collaborator   
Direct Costs: $36,364   
  
04/01/2014- Leona M. & Harry B. Helmsley Charitable Trust   
03/31/2016 “Advancing a New Trajectory of Outcomes for Children with Paralysis through Activity-Based Rehabilitation”   
Co-Investigator   
Direct Costs: $1,363,636   
PUBLICATIONS   
  
Research Papers Peer Reviewed (Published)   
  
1. Foley JM, Harkema SJ, Meyer RA. (1991) Decreased ATP cost of isometric contractions in ATP-depleted rat fast-twitch muscle. Am J Physiol Nov;261(5 Pt 1):C872-C881.   
  
2. Meyer RA, Foley JM, Harkema SJ, Sierra A, Potchen EJ. (1993) Magnetic resonance measurement of blood flow in peripheral vessels after acute exercise.   
Magn Reson Imaging 11(8):1805-92.   
  
3. Dobkin BH, Harkema S, Requejo P, Edgerton VR. (1995) Modulation of locomotor-like EMG activity in subjects with complete and incomplete spinal cord injury.   
J Neurol Rehabil 9(4):183-190.   
  
4. Harkema SJ, Adams GR, Meyer RA. (1997) Acidosis has no effect on the ATP cost of contraction in cat fast- and slow-twitch skeletal muscles. Am J Physiol Feb;272(2 Pt 1):C485-90.   
  
5. Harkema SJ, Meyer RA. (1997) Effect of acidosis on control of respiration in skeletal muscle.   
Am J Physiol 272:C491-C500.   
  
6. Harkema SJ, Hurley SL, Patel UK, Requejo PS, Dobkin BH, Edgerton VR. (1997) Human lumbosacral spinal cord interprets loading during stepping. J Neurophysiol Feb;77(2):797-811.   
  
7. Basso DM, Behrman AL, Harkema SJ. (2000) Recovery of walking after central nervous system insult: Basic research in the control of locomotion as a foundation for developing rehabilitation strategies. Neurol Rep 24(2):47-54.   
  
8. Behrman AL, Harkema SJ. (2000) Locomotor training after human spinal cord injury: A series of case studies. Phys Ther Jul;80(7):688-700.   
  
9. Maegele M, Mueller S, Wernig A, Edgerton VR, Harkema SJ. (2002) Recruitment of spinal motor pools during voluntary movements versus stepping after human spinal cord injury.   
J Neurotrauma Oct19(10):1217-29.   
  
10. Johnson TD, Elashoff RM, Harkema SJ. (2003) A Bayesian change-point analysis of electromyographic data: detecting muscle activation patterns and associated applications. Biostatistics Jan;4(1):143-164.   
  
11. Beres-Jones JA, Johnson TD, Harkema SJ. (2003) Clonus after human spinal cord injury cannot be attributed solely to recurrent muscle-tendon stretch. Exp Brain Res Mar;149(2):222-236.   
  
12. Dobkin BH Apple DA, Barbeau H, Basso M, Behrman A, Deforge D, Ditunno J, Dudley G, Elashoff R, Fugate L, Harkema S, Saulino M, and Scott M. (2003) Methods for a randomized trial of weight-supported treadmill training versus conventional training for walking during inpatient rehabilitation after incomplete traumatic spinal cord injury.   
Neurorehab Neural Rep Sept;17(3):153-167.   
  
13. Ferris DP, Gordon KE, Beres-Jones JA, Harkema SJ. (2004) Muscle activation during unilateral stepping occurs in the non-stepping limb of humans with clinically complete spinal cord injury. Spinal Cord Jan;42(1):14-23.   
  
14. Beres JA, Harkema SJ. (2004) The human spinal cord interprets velocity-dependent afferent input during stepping. Brain Oct; 127(Pt 10):2232-46.   
  
15. Behrman AL, Lawless-Dixon AR, Davis SB, Bowden MG, Nair P, Phadke C, Hannold EM, Plummer P, Harkema SJ. (2005) Locomotor training progression and outcomes after incomplete spinal cord injury. Phys Ther Dec;85 (12):1356-71.   
  
16. Krassioukov AV, Harkema SJ. (2006) Effect of harness application and postural changes on cardiovascular parameters of individuals with spinal cord injury.   
Spinal Cord Dec; 44(12):780-6. Epub 2006 Jun 27.   
  
17. Dobkin B, Apple D, Barbeau H, Basso M, Behrman A, Deforge D, Ditunno J, Dudley G, Elashoff R, Fugate L, Harkema S, Saulino M, Scott M; Spinal Cord Injury Locomotor Trial Group. (2006) Weight-supported treadmill vs. over-ground training for walking after acute incomplete SCI. Neurology Feb 28; 66(4):484-93.   
  
18. Reinkensmeyer DJ, Aoyagi D, Emken JL, Galvez JA, Ichinose W, Kerdanyan G, Maneekobkunwong S, Minakata K, Nessler JA, Weber R, Roy RR, de Leon R, Bobrow JE, Harkema SJ, Edgerton VR. (2006) Tools for understanding and optimizing robotic gait training. J Rehabil Res Dev Aug-Sep;43(5):657-70.   
  
19. Dobkin B, Barbeau H, Deforge D, Ditunno J, Elashoff R, Apple D, Basso M, Behrman A, Harkema S, Saulino M, Scott M; Spinal Cord Injury Locomotor Trial Group. (2007) The evolution of walking-related outcomes over the first 12 weeks of rehabilitation for incomplete traumatic spinal cord injury: the multicenter randomized Spinal Cord Injury Locomotor Trial.   
Neurorehabil Neural Repair Jan-Feb; 21(1):25-35.   
  
20. Giesser B, Beres-Jones J, Budovitch A, Herlihy E, Harkema S. (2007) Locomotor training using body weight support on a treadmill improves mobility in persons with multiple sclerosis: a pilot study. Multiple Sclerosis Mar;13(2):224-31.   
  
21. Courtine G, Harkema SJ, Dy CJ, Gerasimenko YP, Dyhre-Poulsen P. (2007) Modulation of multisegmental monosynaptic responses in a variety of leg muscles during walking and running in humans. J Physiol Aug 1; 582(Pt): 1125-39. Epub 2007 April 19.   
  
22. Ditunno J, Barbeau H, Dobkin B, Elashoff R, Harkema S, Marino R, Hauck WW, Apple D, Basso M, Behrman A, Deforge D, Fugate L, Saulino M, Scott M, Chung J. (2007) Validity of the walking scale for spinal cord injury and other domains of function in a multicenter clinical trial. Neurorehabil Neural Repair Nov-Dec;21(6): 539-550.   
  
23. Behrman AL, Harkema SJ. (2007) Physical rehabilitation as an agent for recovery after spinal cord injury. Phys Med Rehabil Clin N Am May; 18(2):183-202.   
  
24. Aoyagi D, Ichinose WE, Harkema SJ, Reinkensmeyer DJ, Bobrow JE. (2007) A robot and control algorithm that can synchronously assist in naturalistic motion during body-weight supported gain training following neurologic injury. IEEE Trans Neural Syst Rehabil Eng Sep;15(3):387-400.   
  
25. Galvez JA, Budovitch A, Harkema SJ, Reinkensmeyer DJ. (2007) Quantification of therapists’ manual assistance on the leg during treadmill gait training with partial body-weight support after spinal cord injury. IEEE Eng Med Biol Soc 4028-32.   
  
26. Emken JL, Harkema SJ, Beres-Jones JA, Ferreira CK, Reinkensmeyer DJ. (2008) Feasibility of manual teach-and-replay and continuous impedance shaping for robotic locomotor training following spinal cord injury. IEEE Trans Biomed Eng Jan;55(1):322-34.   
  
27. Knikou M, Angeli C, Ferreira C, Harkema S. (2008) Soleus H-Reflex modulation during body weight support treadmill walking in spinal cord intact and injured subjects.   
Exp Brain Res Nov;193(3):397-407.   
  
28. Forrest GF, Sisto SA, Barbeau H, Kirshblum S, Wilen J, Bond Q, Bentson S, Harkema S. (2008) Neuromotor and musculoskeletal responses to locomotor training for an individual with chronic motor complete, ASIA-B spinal cord injury. J Spinal Cord Med 31(5):509-21.   
  
29. Harkema SJ, Ferreira CK, van den Brand RJ, Krassioukov AV. (2008) Improvements in orthostatic instability with stand locomotor training in individuals with spinal cord injury.   
J Neurotrauma 25(12): 1467-1475.   
  
30. Datta S, Lorenz DJ, Morrison S, Ardolino E, Harkema SJ. (2009) A Multivariate Examination of Temporal Changes in Berg Balance Scale Items for Patients with ASIA Impairment Scale C and D Spinal Cord Injuries. Arch Phys Med Rehabil July;90(7):1208-1217.   
  
31. Knikou M, Angeli C, Ferreira C, Harkema SJ. (2009) Flexion reflex modulation during stepping in human spinal cord injury. Exp Brain Res July;196(3):341-351.   
  
32. Knikou M, Angeli C, Ferreira C, Harkema S. (2009) Soleus H-reflex gain, threshold, and amplitude as function of body posture and load in spinal cord intact and injured subjects.   
Int J Neurosci 119(11): 2056-2073.   
  
33. Dy CJ, Gerasimenko YP, Edgerton VR, Dyhre-Poulsen P, Courtine G, and Harkema SJ. (2010) Phase dependent modulation of percutaneously elicited multisegmental muscle responses after spinal cord injury. J Neurophysiol. May; 103(5):2808-20.   
  
34. McKay WB, Ovechkin AV, Vitaz TW, Terson De Paleville D, Harkema SJ. (2010) Long-lasting Involuntary Motor Activity in Acute Spinal Cord Injury. Spinal Cord Jan; 49(1):87-93.   
  
35. Galvez JA, Budovitch A, Harkema SJ, Reinkensmeyer DJ. (2011) Trainer variability during step training after spinal cord injury: Implications for robotic gait training device design. J Rehabil Res Dev. 48(2):147-60.   
  
36. McKay WB, Ovechkin AV, Vitas TW, Terson De Paleville D, Harkema SJ. (2011) Neurophysiological Characterization of Motor Recovery in Acute Spinal Cord Injury. Spinal Cord. Mar; 49(3):421-9.   
  
37. Harkema S, Gerasimenko Y, Hodes J, Burdick J, Angeli C, Chen Y, Ferreira C, Willhite A, Rejc E, Edgerton VR. (2011) Effect of epidural stimulation of the lumbosacral spinal cord on voluntary movement, standing, and assisted stepping after motor complete paraplegia: a case study. Lancet Jun 4;377(9781):1938-47.   
  
38. Anderson KD, Acuff ME, Arp BG, Backus D, Chuna S, Fisher K, Fjerstad JE, Graves DE, Greenwald K, Groah SL, Harkema SJ, et al. (2011) United States (US) multi-center study to assess the validity and reliability of the Spinal Cord Independence Measure (SCIM III). Spinal Cord Aug 49(8):880-5.   
  
39. Lorenz DJ, Datta S, Harkema SJ. (2011) Marginal association measures for clustered data. Stat Med 30: 3181–3191   
  
40. Wilson, JR, Grossman RG, Frankowski R, Kiss A, Davis AM, Kulkarni A, Harrop JS, Aarabi B, Vaccaro A, Tator CH, Dvorak MF, Shaffrey CI, Harkema S, Guest J, Fehlings M. (2012) A clinical prediction model for long-term functional outcome after traumatic spinal cord injury based on acute clinical and imaging factors. Journal of Neurotrauma Sep; 29 (13):2263-71. Doi: 10.1089/neu.2012.2317. Epub 2012 Jul 13   
  
41. Ardolino EM, Hutchinson KJ, Zipp GP, Clark M, Harkema SJ. (2012) The ABLE Scale: The development and psychometric properties of an outcome measure for the spinal cord injury population. Phys Ther Aug;92(8):1046-54.   
  
42. Forrest GF, Lorenz DJ, Hutchinson K, Van Hiel L, Basso DM, Datta S, Sisto SA, Harkema SJ. (2012) Ambulation and balance outcomes measure different aspects of recovery in individuals with chronic incomplete spinal cord injury. Archives of Physical Medicine and Rehabilitation Sept: 93:1553-64.   
  
43. Sisto SA, Lorenz D, Hutchinson K, Wenzel L, Hillyer J, Harkema S, Krassioukov A. (2012) Cardiovascular status of individuals with incomplete spinal cord injury from seven NeuroRecovery network rehabilitation centers. Archives of Physical Medicine and Rehabilitation Sept; 93:1578-87.   
  
44. Datta S, Lorenz DJ, Harkema SJ. (2012) Dynamic longitudinal evaluation of the utility of the Berg Balance Scale in patients with motor incomplete spinal cord injury. Archives of Physical Medicine and Rehabilitation Sept; 93:1565-73.   
  
45. Behrman AL, Ardolino E, VanHiel L, Kern M, Arkinson D, Lorenz D, Harkema S. (2012) Assessment of functional improvement without compensation reduces variability of outcome measures after human spinal cord injury. Archives of Physical Medicine and Rehabilitation Sept; 93:1518-29.   
  
46. Lorenz DJ, Datta S, Harkema SJ. (2012) Longitudinal patterns of functional recovery in patients with incomplete spinal cord injury receiving activity-based rehabilitation. Archives of Physical Medicine and Rehabilitation Sept; 93:1541-52.   
  
47. Harkema SJ, Schmidt-Read M, Behrman AL, Bratta A, Sisto SA, Edgerton VR. (2012) Establishing the NeuroRecovery Network: Multi-site rehabilitation centers that provide activity-based therapies and assessments for neurologic disorders. Archives of Physical Medicine and Rehabilitation Sept;93(9):1498-507. Epub 2011 Jul 20. .   
  
48. Harkema SJ, Schmidt-Read M, Lorenz D, Edgerton VR, Behrman AL. (2012) Balance and ambulation improvements in individuals with chronic incomplete spinal cord injury using Locomotor Training-based rehabilitation. Archives of Physical Medicine and Rehabilitation Sept;93(9):1508-17. Epub 2011 Jul 20.   
  
49. Fehlings MG, Wilson JF, Frankowski RF, Toups EG, Aarabi B, Harrop JS, Shaffrey CI, Harkema SJ, Guest JD, Tator CH, Burau KD, Johnson MW, Grossman RG. (2012) Riluzole for the treatment of acute traumatic spinal cord injury: rationale for and design of the NACTN Phase 1 clinical trial. J Neurosurg Spine. 2012 Sep;17(1 Suppl):151-6. doi: 10.3171/2012.4.AOSPINE 1259.   
  
50. Grossman RG, Frankowski RF, Burau KD, Toups EG, Crommett JW, Johnson MM, Fehlings MG, Tator CH, Shaffrey CI, Harkema SJ, Hodes JE, Aarabi B, Rosner MK, Guest JD, Harrop JS. (2012) Incidence and severity of acute complications after spinal cord injury. J Neurosurg Spine. 2012 Sep;17(1 Suppl);119-28. doi:10.3171/2012.5.AOSPINE 12127.   
  
51. Li K, Atkinson D, Boakye M, Tolfo CZ, Aslan S, Green M, McKay B, Ovechkin A, Harkema SJ. Quantitative and sensitive assessment of neurophysiological status after human spinal cord injury. J Neurosurg Spine. 2012 Sep;17(1 Suppl):77-86. doi 10.3171/2012.6. AOSPINE1295.   
  
52. Aarabi B, Harrop JS, Tator CH, Alexander M, Dettori JR, Grossman RG, Fehlings MG, Mirvis SE, Shanmuganathan K, Zacherl KM, Burau KD, Frankowski RF, Toups E, Shaffrey CI, Guest JD, Harkema SJ, Habashi NM, Andrews P, Johnson MM, Rosner MK. (2012) Predictors of pulmonary complications in blunt traumatic spinal cord injury. J Neurosurg Spine. 2012 Sep;17(1 Suppl):38-45. doi: 10.3171/2012.4.AOSPINE1295.   
  
53. Forrest GF, Lorenz DJ, Hutchinson KA, VanHiel L, Basso DM, Datta S, Sisto SA, Harkema SJ. (2012) Relationships between Balance and Walking Measures at Baseline and after Locomotor Training in Incomplete SCI: Impact of Functional Recovery. Arch Phys Med Rehabil. Sep; 93 (9):1553-64. doi: 10.1016/j.apmr.2011.08.051   
  
54. Grossman RG, Fehlings MG, Frankowski RF, Burau KD, Chow DS, Tator C, Teng A, Toups EG, Harrop JS, Aarabi B, Shaffrey CI, Johnson MM, Harkema SJ, Boakye M, Guest JD, Wilson JR. (2014) A prospective, multicerter, phase I matched-comparison group trial of safety, pharmacokinetics, and preliminary efficacy of riluzole in patients with traumatic spinal cord injury. J Neurotrauma Feb1; 31(3):239-55.doi: 10.1089/neu.2013.2969. Epub 2013 Oct 11.   
  
55. Sayenko DG, Angeli C, Harkema SJ, Edgerton VR, Gerasimenko YP. (2014) Neuromodulation of evoked muscle potentials induced by epidural spinal-cord stimulation in paralyzed individuals. J Neurophysiol. March; 111(5):1088-99. doi: 10.11152/jn.00489.2013. Epub 2013 Dec 11.   
  
56. Ward PJ, Herrity AN, Smith RR, Willhite A, Harrison BJ, Petruska JC, Harkema SJ, Hubscher CH. (2014) Novel Multi-System Functional Gains via Task Specific Training in Spinal Cord Injured Male Rats. J Neurotrauma May1; 31(9):819-33.doi: 10.1089/neu.2013.3082. Epub 2014 March 25.   
  
57. Angeli CA, Edgerton VR, Gerasimenko YP, Harkema SJ. (2014) Altering spinal cord excitability enables voluntary movements after chronic complete paralysis in humans. Brain. May; 137 (pt5): 1394-409.doi: 10.1093. Epub 2014 Apr 8.   
  
58. Sayenko DG, Atkinson DA, Dy CJ, Gurley KM, Smith VL, Angeli C, Harkema SJ, Edgerton VR, Gerasimenko, YP. (2015) Spinal segment-specific transcutaneous stimulation differentially shapes activation pattern among motor pools in humans. J Appl Physiol. June; 118(11):1364-74. Epub 2015 Mar 26.   
  
59. Rejc E, Angeli C, Harkema S. (2015) Effects of Lumbosacral Spinal Cord Stimulation for Standing after Chronic Complete Paralysis in Humans. PLoS One. Jul; 10(7):e0133998.   
  
60. Sayenko DG, Atkinson DA, Floyd TC, Gorodnichev RM, Moshonkina TR, Harkema SJ, Edgerton VR, Garasimenko YP. (2015) Effects of paired transcutaneous electrical stimulation delivered at single and dual sites over lumbosacral spinal cord. Neurosci Lett. Nov; 609:229-234.doi: 10.1016/j.neulet.2015.10.005   
  
61. Hubscher CH, Montgomery LR, Fell JD, Armstrong JE, Paudyal P, Herrity AN, Harkema SJ (2016) Effects of exercise training on urinary tract function after spinal cord injury. AMm J Physiol. Jun 1; 310(11): F1258-68. Doi:10.1152/ajprenal.00557.2015. Epub 2016 Mar 16.   
  
62. Harkema SJ, Shogren C, Ardolino E, Lorenz DJ. (2016) Assessment of Functional Imporvement without Compensation for Human Spinal Cord Injury: Extending the Neuromuscular Recovery Scale to the Upper Extremities. J Neurotrauma. Jun 15. (Epub ahead of print) PMID: 27071494.   
  
63. Legg Ditterline BE, Aslan SC, Randall DC, Harkema SJ, Ovechkin AV. (2016) Baroreceptor reflex during forced expiratory maneuvers in individuals with chronic spinal cord injury. Respir Physiol Neurobiol. July15;229:65-70. Doi: 10.1016/j.resp.2016.04.006. Epub 2016 Apr 30. PMID: 27137412.   
  
64. Rejc E, Angeli CA, Bryant N, Harkema S. Effects of stand and step training with epidural stimulation on motor function for standing in chronic complete paraplegics. J Neurotrauma. Aug 26. (Epub ahead of print) PMID: 27566051   
  
  
REVIEWS   
  
Peer Reviewed (Published)   
  
1. Edgerton VR, Roy RR, Hodgson JA, Day MK, Weiss J, Harkema SJ, Dobkin B, Garfinkel A, Konigsberg E, Koslovskaya I. (2000) How the science and engineering of spaceflight contribute to understanding the plasticity of spinal cord injury. Acta Astronaut Jul 1;47(1):51-62.   
  
2. Edgerton VR, de Leon RD, Harkema SJ, Hodgson JA, London N, Reinkensmeyer DJ, Roy RR, Talmadge RJ, Tillakaratne NJ, Timoszyk W, Tobin A. (2001) Topical Review: Retraining the injured spinal cord. J Physiol May 15;533(Pt 1):15-22.   
  
3. Harkema SJ. (2001) Neural plasticity after human spinal cord injury: Application of locomotor training to the rehabilitation of walking. Neuroscientist Oct;7(5):455-468.   
  
4. Dietz V, Harkema SJ. (2004) Locomotor activity in spinal cord-injured persons.   
J Appl Physiol May; 96(5):1954-1960.   
  
5. Reinkensmeyer DJ, Aoyagi D, Emken JL, Galvez JA, Ichinose W, Kerdanyan G, Maneekobkunwong S, Minakata K, Nessler JA, Weber R, Roy RR, de Leon R, Bobrow JE, Harkema SJ, Edgerton VR. (2006) Tools for understanding and optimizing robotic gait training. J Rehabil Res Dev Aug-Sep; 43(5):657-70.   
  
6. Behrman AL and Harkema SJ. (2007) Physical rehabilitation as an agent for recovery after spinal cord injury. Phys Med Rehabil Clin N Am May;18(2):183-202.   
  
7. Harkema, SJ. (2008) Plasticity of interneural networks of the functionally isolated human spinal cord. Brain Res Rev. Jan;57(1):255-64.   
  
8. Roy RR, Harkema SJ, Edgerton VR. (2012) Basic concepts of activity-based interventions for improved recovery of motor function after spinal cord injury. Arch Phys Med Rehabil. Sep;93(9):1487-97. doi:10.1016/j.apmr.2012.04.034.   
  
9. Harkema SJ, Hillyer J, Schmidt-Read M, Ardolino E, Sisto SA, Behrman AL. (2012) Locomotor training: as a treatment of spinal cord injury and in the progression of neurologic rehabilitation. Arch Phys Med Rehabil. Sep;93(9):1588-97. doi: 10.1016/j.apmr.2012.04.032.   
  
10. Boakye M, Harkema S, Ellaway PH, Skelly AC. (2012) Quantitative testing in spinal cord injury: overview of reliability and predictive validity. J Neurosurg Spine. 2012 Sep;17(1 Suppl):141-50. doi: 10.3171/2012.5.AOSPINE1296.   
  
11. Harkema S, Behrman A, Barbeau H. (2012) Evidence-based therapy for recovery of function after spinal cord injury. Handb Clin Neurol.;109:259-74. doi: 10.1016/B978-0-4444-52137-8.00016-4.   
  
  
Invited (Published)   
  
12. Edgerton VR and Harkema SJ. (2011) Epidural stimulation of the spinal cord in spinal cord injury: current status and future challenges. Expert Rev Neurother Oct:93(5):919-21.   
  
  
  
  
  
BOOK CHAPTERS   
  
Peer Reviewed (Published)   
  
1. Harkema SJ, Meyer RA. Effects of acidosis on ATP turnover in control of respiration in intact skeletal muscle. In: Biothermal Kinetics of Living Cells edited by H.V. Westerhoff, J.L. Snoep, F.E. Sluse, J.E. Wijker, B.N. Kholodenko. Amsterdam: B.K. Press, p. 108-111, 1996.   
  
2. Harkema, SJ, Dobkin, BH, and Edgerton, VR. Pattern generators in locomotion: Implications for recovery of walking after spinal cord injury. In: Topics in Spinal Cord Injury Rehabilitation. Thomas Land Publishers, St. Louis, 6(2): 82-96, 2000.   
  
3. Edgerton, VR, Harkema SJ, Dobkin BH. Retraining the human spinal cord to walk. In: Spinal Cord Medicine, edited by V. Lin, Demos Publishing, 843-852, 2002.   
  
4. Behrman AL, Druin E, Bowden M, Harkema S. Ambulation. In: Spinal Cord Injuries: Management and Rehabilitation, edited by K. Falk, Mosby Elsevier, 380-406, 2009.   
  
5. Ardolino, E, Watson, E, Behrman, AL, Harkema, S, Schmidt-Read, M. Case Study 3: Spinal Cord Injury: Locomotor Training. In: Improving Functional Outcomes in Physical Rehabilitation, edited by O’Sullivan, SB, Schmitz, TJ. FA Davis, Philadelphia, 262-273, 2010.   
  
6. Edgerton VR, Harkema SJ, Dobkin BR. Retraining the Human Spinal Cord: Exercise Intervention to Enhance Recovery after a Spinal Cord Injury. In: Spinal Cord Medicine: Principles and Practice, edited by V Lin, Demos Medical Publishing, New York, 939- 949, 2010.   
  
7. Harkema SJ. Electrophysiological predictors of lower limb motor recovery in man: the rehabilitation perspective. In: Essentials of Spinal Cord Injury., edited by Fehlings M, Vaccaro A, Boakye M, Rossignol S, Ditunno J, Burns A, Thieme Publishers. 2012   
  
  
BOOKS   
  
Books (Published)   
  
1. Harkema SJ, Behrman AL, Barbeau H. Locomotor Training: Principles and Practice, Oxford Press, May 2011.

***Siqi Wang,***   
Department of Neurological Surgery

*(no CV uploaded)*

***Claudia Angeli, PhD***  
Frazier Rehab Institute; University of Louisville Kentucky Spinal Cord Injury Research Center

*(no CV uploaded)*

***Yangsheng Chen,***   
University of Louisville Kentucky Spinal Cord Injury Research Center

*(no CV uploaded)*

***Maxwell Boakye, MD***  
University of Louisville Department of Neurosurgery

*(no CV uploaded)*

***Beatrice Ugiliweneza, PhD***  
University of Louisville Department of Neurosurgery

*(no CV uploaded)*

***Glenn Hirsch, MD, MHS, FACC***  
University of Louisville School of Medicine

*(no CV uploaded)*

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**Personality, high-risk behaviors, and the elevated risk of unintentional deaths related to drug poisoning among those with spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***James Krause, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

***Yue Cao, PhD***  
Medical University of South Carolina

**CV:**  
EDUCATION   
  
August 2011 MSPH, Epidemiology, University of Alabama at Birmingham, USA   
  
May 2010 PhD, Medical Sociology, University of Alabama at Birmingham, USA   
  
July 2003 BA, English, Nanjing Normal University, China   
  
RESEARCH EXPERIENCE   
  
2014- Assistant Professor, Department of Health Science and Research, Medical University of South Carolina   
  
2011-2014 Faculty Research Associate, Department of Health Science and Research, Medical University of South Carolina   
  
2010-2011 Postdoctoral Fellow, National Spinal Cord Injury Statistical Center   
  
2008-2010 Research Assistant, National Spinal Cord Injury Statistical Center   
  
RESEARCH INTERESTS   
  
Epidemiology of Spinal Cord Injury Environmental Impacts on Rehabilitation Outcomes   
  
Health Disparities Migration and Health Study   
  
SELECTED PUBLICATIONS   
Krause, J. S., Cao, Y., DeVivo, M. J., & DiPiro, N. D. (2016). Risk and protective factors for cause-specific mortality after spinal cord injury. Archives of Physical Medicine and Rehabilitation, 97(10), 1669-1678.   
Cao, Y., L. Chao, A. Gregory, S. Charlifue, and J.S. Krause. (2016 Epub) Risk and protective factors for depressive symptomatology after spinal cord injury: A multi-center investigation of multiple racial-ethnic groups. Journal of Spinal Cord Medicine.   
  
  
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Szlachcic, Y., R. G. Adkins, Y. Cao, and J. S. Krause. 2014. Cardiometabolic changes and disparities among persons with spinal cord injury: A 17-year cohort study. Topics in Spinal Cord Injury Rehabilitation 20: 96-104.   
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Kiage, N., P. Merrill, C. Robinson, Y. Cao, T. Malik, B. Hundley, P. Lao, S. Judd, M. Cushman, V. Howard, and E. Kabagambe. 2013. Intake of Trans Fat and All-cause Mortality in the Reasons for Geographical and Racial Differences in Stroke (REGARDS) Cohort. The American Journal of Clinical Nutrition 97: 1121-8.   
  
Krause, J.S., Y. Cao, J.L. Bozard. 2013. “Changes in Hospitalization, Physician Visits, and Self-Reported Fitness after Spinal Cord Injury: A Cross-Sequential Analysis of Age, Years Since Injury, and Age at Injury Onset.” Archives of Physical Medicine & Rehabilitation 94:32-7.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2012. “Project-induced displacement, secondary stressors, and health.” Social Science & Medicine 74:1130-8.   
  
Chen, Y., and Y. Cao. 2012. “Epidemiological Context and Concerns.” In Paul Kennedy (ed.), The Oxford Handbook of Rehabilitation Psychology. New York: Oxford University Press.   
  
  
PRESENTATIONS AT PROFESSIONAL MEETINGS   
  
Cao, Y., Walker, E. A., & Krause, J.S. 2016. “Environmental barriers and subjective health among people with chronic spinal cord injury: a cohort study” Presented at the annual conference of NARRTC, Alexandria, VA.   
  
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Krause, J.S., Cao, Y., Clark, J. M. R., & Hudson, L. M. 2016. “Changes in Vocational Interests after the Onset of Spinal Cord Injury: A 10-year Longitudinal Study.” Presented at the annual conference of ASIA, Philadelphia, PA.   
  
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Cao, Y. 2014. “Environmental Influence and Spinal Cord Injury: Understanding SCI Incidence and Health Outcomes by using Census Data.” Presented at the annual conference of American Congress of Rehabilitation Medicine, Toronto, Canada.   
  
Cao, Y., & Krause, J.S. 2014. “Emergency room visits and related hospitalizations among those with chronic spinal cord injury.” Presented at the 53rd annual Scientific Meeting of the International Spinal Cord Society, Maastricht, Netherlands.   
  
Cao, Y., & Krause, J.S. 2014. “Environmental Barriers and Subjective Health among People with Chronic Spinal Cord Injury: A Cohort Study.” Presented at the annual conference of the American Spinal Injury Association, San Antonio, TX.   
Saunders, L. L., Clarke, A., Cao, Y., & Krause, J.S. 2014. “Chronic disease prevalence in a cohort of persons with spinal cord injury.” Presented at the annual conference of NARRTC, Alexandria, VA.   
Krause, J.S., & Cao, Y. 2013 “Estimating life expectancy after SCI and TBI: Importance of economic factors.” Presented at the International Symposium on Life Care Planning, Atlanta, GA.   
  
Cao, Y. 2013. “Secondary Conditions and Mortality after TSCI—Longitudinal Analyses.” Presented at 2013 ASIA State of Science Pre Conference, Chicago, IL.   
  
Cao, Y. 2013. “Risk of Death after Hospital Discharge with Traumatic Spinal Cord Injury in South Carolina, 1998 – 2009.” Presented at 2013 Spinal Cord Injury Scientific Conference, Charleston, SC.   
  
Saunders, L.L., Krause, J.S., Saladin, M. E., Carpenter, M. J. & Cao, Y. 2013. “Cigarette Smoking in Adults with Spinal Cord Injury.” Presented at The National Association of Rehabilitation Research Training Centers 2013 Annual Meeting, Alexandria, VA.   
  
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Saunders, L.L., Krause, J.S., & Acuna, J., and Cao, Y. 2012. “Association of race, socioeconomic status, and health care access with pressure ulcers after SCI.” Presented at the National Association of Rehabilitation Research Training Centers 2012 Annual Meeting, Alexandria, VA.   
  
  
AWARDS AND HONORS   
  
2009 MHRC Charles Barkley Health Disparities Investigator 1st Place Award, Annual Health   
Disparities Research Symposium   
  
2009 The DeVivo Mentored Research Award, National Spinal Cord Injury Statistical Center   
  
2009 Dean’s Outstanding Graduate Student Research Award, School of Social and Behavior   
Sciences at UAB   
  
2006 Nominee, International Academic Excellence Award of UAB   
  
GRANT SUPPORT   
  
South Carolina Spinal Cord Injury Fund (Grant # SCIRF 11-006) “The Application of Medical Sociology to the Study of Health and Mortality after Spinal Cord Injury” (2011-2015). $124,875. Role: PI.   
  
National Institute on Disability and Rehabilitation Research (Grant # H133G140048) “Risk of Early Mortality after Spinal Cord Injury” (2014-2017). $ 600,000.   
Role: Co-I   
  
CURRENT MEMBERSHIPS   
  
American Congress of Rehabilitation Medicine   
  
American Public Health Association   
  
American Spinal Injury Association   
  
International Spinal Cord Society

***Nicole DiPiro, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

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**Lifetime Prevalence Comparison of Chronic Health Conditions between Spinal Cord Injury Cohorts and the General Population**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Yue Cao, MSPH, PhD***  
Medical University of South Carolina

**CV:**  
EDUCATION   
  
May 2010 PhD, Medical Sociology, University of Alabama at Birmingham, USA   
  
August 2011 MSPH, Epidemiology, University of Alabama at Birmingham, USA   
  
RESEARCH EXPERIENCE   
  
2014- Assistant Professor, Department of Health Science and Research, Medical University of South Carolina   
  
2011-2014 Faculty Research Associate, Department of Health Science and Research, Medical University of South Carolina   
  
2010-2011 Postdoctoral Fellow, National Spinal Cord Injury Statistical Center   
  
2008-2010 Research Assistant, National Spinal Cord Injury Statistical Center   
  
AWARDS AND HONORS   
  
2016 Developing Scholar of the Year, College of Health Profession at MUSC   
  
2009 MHRC Charles Barkley Health Disparities Investigator 1st Place Award, Annual Health   
Disparities Research Symposium   
  
2009 The DeVivo Mentored Research Award, National Spinal Cord Injury Statistical Center   
  
2009 Dean’s Outstanding Graduate Student Research Award, School of Social and Behavior   
Sciences at UAB   
  
2006 Nominee, International Academic Excellence Award of UAB   
  
SELECTED PUBLICATIONS   
Cao, Y., Li, C., Lucas, J., Charlifue, S., & Krause, J. S. (in press). Post-traumatic stress disorder after spinal cord injury. Rehabilitation Psychology.   
Davis, J., Cao, Y., & Krause, J. S. (in press). Changes in alcohol use after the onset of spinal cord injury. Journal of Spinal Cord Medicine.   
Cao, Y., L. Chao, A. Gregory, S. Charlifue, and J.S. Krause. (2017) Risk and protective factors for depressive symptomatology after spinal cord injury: A multi-center investigation of multiple racial-ethnic groups. Journal of Spinal Cord Medicine 40: 85-92.   
Clark, J.M.R., Cao, Y., & Krause, J. S. (2017). Risk of pain medication misuse after spinal cord injury: The role of substance use, personality, and depression. Journal of Pain 18: 166-177.   
Krause, J. S., Cao, Y., DeVivo, M. J., & DiPiro, N. D. (2016). Risk and protective factors for cause-specific mortality after spinal cord injury. Archives of Physical Medicine and Rehabilitation, 97(10), 1669-1678.   
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Li, C., N. DiPiro., Y. Cao, Y. Szlachic, and J. S. Krause. (2016 Epub). The association between metabolic syndrome and pressure ulcers among individuals living with spinal cord injury. Spinal Cord. Doi: 10.1038/sc.2016.53   
  
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Cao, Y., Krause, J.S., & Clark, J.M.R. 2017. The Impacts of Pain Experiences and Pain Medication Use on the Risk of Mortality after SCI. Presented at the annual conference of the National Association of Rehabilitation Research and Training Center, Alexandria, VA.   
  
Cao, Y., Clark, J.M.R., & Krause, J.S. 2017. Pain intensity, interference, and medication use after SCI: relationship with mortality. Presented at the annual conference of the American Spinal Cord Injury Association, Albuquerque, NM.   
  
Cao, Y., Walker, E. A., & Krause, J.S. 2016. “Environmental barriers and subjective health among people with chronic spinal cord injury: a cohort study” Presented at the annual conference of NARRTC, Alexandria, VA.   
  
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Cao, Y., Y. Chen, and M. J. DeVivo. 2011. “The Trends of Suicide Mortality Rates after Spinal   
Cord Injury.” Presented at the ACRM-ASNR Annual Conference, Atlanta.   
  
Cao, Y. 2011. “Education Matters for People with Spinal Cord Injury.” Presented at Grand Rounds of Department of Physical Medicine and Rehabilitation at UAB.   
  
Cao, Y. and Y. Chen. 2010. “Cumulative Effect of Education over Time on Health after Spinal Cord Injury.” Presented at American Public Health Association 2010 Annual Meeting, Denver.   
  
Chen Y., Cao Y., Allen V., and Richards J.S. 2010. “Impact of underweight on physical and psychological health of persons with spinal cord injury.” Presented at Annual Scientific Meeting of the American Spinal Injury Association, Nashville.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2009. “Rural-Urban Structural Inequality and the Development-   
Induced Migration in China.” Presented at Annual Meeting of the American   
Sociological Association, San Francisco.   
  
Chen Y., Y. Cao, V. Allen, and J. S. Richards. 2009. “Weight matter: physical and psychosocial health of persons with spinal cord injury in relation to body mass index.” Presented at International Spinal Cord Society Annual Scientific Meeting, Florence, Italy.   
  
Xi, J., S. S. Hwang, and Y. Cao. 2009. “Ecological Context and Immigrants’ Earnings: English Ability as a Mediator.” Presented at Annual Meeting of the American Sociological Association, San Francisco.   
  
Chen Y., Y. Cao, P. Klebine, K.A. Hubbert, V.W. Mark. 2009. “Home-based Intervention on Weight Control of Persons with Spinal Cord Injury.” Presented at Annual Scientific Meeting of the American Spinal Injury Association, Dallas.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2008. “Project-induced Migration, Secondary Stressors, and Health: A Panel Analysis of Migrants of the Three Gorges Dam Project, China.” Presented at the annual meeting of the American Sociological Association, Boston.   
  
Hwang, S.S., Y. Cao, and J. Xi. 2008. “The Short-Term Social, Economic, and Health Impact of China’s Three Gorges Dam Project: A Prospective Study.” Presented at the annual meeting of the American Sociological Association, Boston.   
  
Hwang, S.S., Y. Cao, and J. Xi. 2007. “Project-induced Migration and Depression: A Panel Analysis.” Presented at the annual meeting of the American Sociological Association, New York.   
  
Hwang, S.S., J. Xi, and Y. Cao. 2007. “The Conditional Relationship between English Language Fluency and Earnings among U.S. Immigrants.” Presented at the annual meeting of the American Sociological Association, New York.   
  
Hwang, S.S., J. Xi, and Y. Cao. 2006. “Structural and Individual Covariates of English Language Proficiency.” Presented at the annual meeting of the American Sociological Association, Montreal, Canada.   
  
Hwang, S.S., Juan Xi, X. Feng, Y. Cao, and X. Qiao. 2006. “Anticipation of Migration and Psychological Stress.” Presented at the International Symposium on Urbanization, Gender, and Public Health. Shanghai Academy of Social Sciences. Shanghai, China.   
  
GRANT AWARDED   
  
South Carolina Spinal Cord Injury Fund (Grant # SCIRF 2016 I-04) “The indirect costs of SCI in South Carolina due to lost earnings: Relationships with secondary health conditions and medical expenses” (2017-2019). $142,973.   
Role: Principle investigator.   
  
Administration for Community Living (Grant # 90IF0070-02-02). “Prevalence of Chronic Disease after Spinal Cord Injury: A Longitudinal Study” (2015-2018). $ 599,482.   
Role: Principle investigator.   
  
Administration for Community Living (Grant # 90DP0098). “A multidisciplinary approach to translating new knowledge into practice to promote health and well-being after spinal cord injury” (2016-2019), $449,638.   
Role: Co-director.   
  
Administration for Community Living (Grant # 90IF0119). “Number, primary and secondary diagnoses, and costs of inpatient hospitalizations in a population-based cohort of people with spinal cord injury” (2016-2019), $599,012.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # 90IF0112). “Aging and spinal cord injury: A 45-year longitudinal study” (2016-2019), $598,923.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # 90SI5016). “Spinal Cord Injury Model Systems center grant, Shepherd Center, Atlanta, Georgia” (2016-2021), $225,000.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # H133G140048) “Risk of Early Mortality after Spinal Cord Injury” (2014-2017). $ 600,000.   
Role: Co-investigator   
  
South Carolina Spinal Cord Injury Fund (Grant # SCIRF 11-006) “The Application of Medical Sociology to the Study of Health and Mortality after Spinal Cord Injury” (2011-2015). $124,875. Role: Principle investigator.   
  
CURRENT MEMBERSHIPS   
  
American Congress of Rehabilitation Medicine   
  
American Public Health Association   
  
American Spinal Injury Association   
  
International Spinal Cord Society

***James Krause, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

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**Development and Implementation of a Universal Standing and Walking Assessment Tool (SWAT) for Spinal Cord Injury during the Rehabilitation Process**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Kristen Walden, PT***  
Rick Hansen Institute

**CV:**  
Name: Kristen Walden, PT   
Positions:   
2000-2001 Physiotherapist, Surrey Memorial Hospital, Surrey BC   
2001-2004 Physiotherapist, Acute Spine Program, Vancouver General Hospital, Vancouver, BC   
2004-2008 Physiotherapist, Spine Program, GF Strong Rehabilitation Centre, Vancouver, BC   
2006-present National Clinical Liaison, Rick Hansen Institute, Vancouver, BC   
2008-2009 Physiotherapist, Aquired Brain Injury Program, GF Strong Rehabilitation Centre, Vancouver, BC   
2009-2014 Physiotherapist, Spine Program, GF Strong Rehabilitation Centre, Vancouver, BC   
Appointments:   
Member, International Standards Committee, American Spinal Cord Injury Association   
Contributions to Science:   
A M Round, A M, Park, S E, Walden, K, Noonan, V K, Townson, A, Krassioukov, A V. (2017). An evaluation of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury: input from the international community. Spinal Cord 55 (2): 198-203.   
K Walden, K, Bélanger, L M, Biering-Sørensen, F, Burns, S P, Echeverria, E, Kirshblum, S, Marino, R J, Noonan, V K, Park, S E, Reeves, R K, Waring, W, Dvorak, M F. (2016). Development and validation of a computerized algorithm for International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI). Spinal Cord 2016, 54 (3): 197-203.

***Molly Verrier, Dip(P&OT), MHSc***  
Departments of Physical Therapy, Rehabilitation Science, Institute of Medical Science and Physiology, Faculty of Medicine University of Toronto and University Heath Network-Toronto Rehabilitation Institute, Lyndhurst Centre

*(no CV uploaded)*

***Kristin Mussleman, BScPT, MSc, PhD***  
University Health Network

*(no CV uploaded)*

***Dany Gagnon, BScPT, MSc, PhD***  
Université De Montréal, Centre De Recherche Interdisciplinaire En Réadaptation Du Montréal Métropolitain (Crir), Institut De Réadaptation Gingras- Lindsay-De-Montréal

*(no CV uploaded)*

***Jean Francois Lemay, MPT, PhD***  
Institut De Readaptation Gingras-Lindsay-De-Montreal

*(no CV uploaded)*

***Kristina Guy, MSc***  
Toronto Rehabilitation Institute

*(no CV uploaded)*

**120**

**Long-term functional outcome in patients with acquired infections after acute spinal cord injury.**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Jan Schwab, MD PhD***  
The Ohio State University

**CV:**  
See the combination of the the above.

***Marcel Kopp, MD***  
Charite - School of Medicine Berlin

**CV:**  
is not a presenting author on abstract

***Ralf Waltzlawick, MD***  
Charite - School of Medicine Berlin

**CV:**  
is not a presenting author on abstract

***Peter Martus, PhD***  
Institute for Medical Biometry, University of Tuebingen

**CV:**  
is not a presenting author on abstract

***YuYing Chen, MD PhD***  
University of Alabama

**CV:**  
is not presenting author of abstract

***Michael DeVivo, PhD***  
University of Alabama

**CV:**  
is not presenting author of an abstract

**121**

**Multiple Chronic Conditions and Health Related Behaviors among Persons with Spinal Cord Injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Yue Cao, MSPH, PhD***  
Medical University of South Carolina

**CV:**  
EDUCATION   
  
May 2010 PhD, Medical Sociology, University of Alabama at Birmingham, USA   
  
August 2011 MSPH, Epidemiology, University of Alabama at Birmingham, USA   
  
RESEARCH EXPERIENCE   
  
2014- Assistant Professor, Department of Health Science and Research, Medical University of South Carolina   
  
2011-2014 Faculty Research Associate, Department of Health Science and Research, Medical University of South Carolina   
  
2010-2011 Postdoctoral Fellow, National Spinal Cord Injury Statistical Center   
  
2008-2010 Research Assistant, National Spinal Cord Injury Statistical Center   
  
AWARDS AND HONORS   
  
2016 Developing Scholar of the Year, College of Health Profession at MUSC   
  
2009 MHRC Charles Barkley Health Disparities Investigator 1st Place Award, Annual Health   
Disparities Research Symposium   
  
2009 The DeVivo Mentored Research Award, National Spinal Cord Injury Statistical Center   
  
2009 Dean’s Outstanding Graduate Student Research Award, School of Social and Behavior   
Sciences at UAB   
  
2006 Nominee, International Academic Excellence Award of UAB   
  
SELECTED PUBLICATIONS   
Cao, Y., Li, C., Lucas, J., Charlifue, S., & Krause, J. S. (in press). Post-traumatic stress disorder after spinal cord injury. Rehabilitation Psychology.   
Davis, J., Cao, Y., & Krause, J. S. (in press). Changes in alcohol use after the onset of spinal cord injury. Journal of Spinal Cord Medicine.   
Cao, Y., L. Chao, A. Gregory, S. Charlifue, and J.S. Krause. (2017) Risk and protective factors for depressive symptomatology after spinal cord injury: A multi-center investigation of multiple racial-ethnic groups. Journal of Spinal Cord Medicine 40: 85-92.   
Clark, J.M.R., Cao, Y., & Krause, J. S. (2017). Risk of pain medication misuse after spinal cord injury: The role of substance use, personality, and depression. Journal of Pain 18: 166-177.   
Krause, J. S., Cao, Y., DeVivo, M. J., & DiPiro, N. D. (2016). Risk and protective factors for cause-specific mortality after spinal cord injury. Archives of Physical Medicine and Rehabilitation, 97(10), 1669-1678.   
Saunders, L. L., D. Murday, B. Corley, Y. Cao, and J. S. Krause. (2016) A Comparison of Rates of Hospitalization and Emergency Department Visits Using Self-report and Administrative Billing Data Among a Population-based Cohort with Spinal Cord Injury. Archives of Physical Medicine and Rehabilitation 97(9): 1481-1486.   
Li, C., N. DiPiro., Y. Cao, Y. Szlachic, and J. S. Krause. (2016 Epub). The association between metabolic syndrome and pressure ulcers among individuals living with spinal cord injury. Spinal Cord. Doi: 10.1038/sc.2016.53   
  
Cao, Y., J.S. Krause, L.L. Saunders, and J. Clark. 2015. Impact of Marital Status on 20-Year Subjective Well-being Trajectories. Topics in Spinal Cord Injury Rehabilitation 21: 208-217.   
Cao, Y., E. Walker, and J.S. Krause. 2015. Environmental barriers and subjective health among people with chronic spinal cord injury: A cohort study. Journal of Spinal Cord Medicine 38: 526-531.   
Walker, E., Y. Cao, P. Edles, J. Acuna, C. Sligh-Conway, and J. S. Krause. 2015. Racial-ethnic variations in paid and unpaid caregiving: Findings among persons with traumatic spinal cord injury. Disability and Health Journal 8:527-34.   
Krause, J. S., Y. Cao, and L. L. Saunders. 2015. Changes in cigarette smoking after traumatic spinal cord injury. Rehabilitation Psychology. 60: 379-382.   
Krause, J.S., Y. Cao, J.M.R. Clark, J. Davis, and L. L. Saunders. 2015. Pre-injury cigarette smoking among those with spinal cord injury. Rehabilitation Psychology. 60: 322-327.   
Selassie, A., Y. Cao, and L.L. Saunders. 2015. Epidemiology of traumatic spinal cord injury among persons older than age 21: A population-based study in South Carolina, 1998-2012. Topics in Spinal Cord Injury Rehabilitation 21: 333-344.   
Saunders, L. L., A. Selassie, Y. Cao, K. Zebracki, and L. Vogel. 2015. Epidemiology of pediatric traumatic spinal cord injury in a population-based cohort, 1998-2012. Topics in Spinal Cord Injury Rehabilitation 21: 325-332.   
Krause, J.S., J. Terza, Y. Cao, & J.M.R. Clark. 2015. Emergency room visits and hospitalizations among participants with spinal cord injury. NeuroRehabilitation 36: 313-21.   
Cao, Y., J. S. Krause, and N.D. DiPiro. 2014. Unmet expectations of adjustment and depressive symptoms among people with traumatic spinal cord injury. Rehabilitation Psychology 59: 313-20.   
Cao, Y., J.F. Massaro, J.S. Krause, Y. Chen, and M.J. DeVivo. 2014. Suicide Mortality after Spinal Cord Injury in the United States: Injury Cohorts Analysis. Archives of Physical Medicine and Rehabilitation 95: 230-5.   
  
Cao, Y., J.S. Krause, L.L. Saunders, and W. Bingham. 2014. Household Income and Subjective Well-being after Spinal Cord Injury: A Longitudinal Study. Topics in Spinal Cord Injury Rehabilitation 20: 40-7.   
  
Selassie, A., Y. Cao, C. Church, L.L. Saunders, and J.S. Krause. 2014. Accelerated death rate in population-based cohort of persons with traumatic brain injury. Journal of Head Trauma Rehabilitation 29: 197-266.   
Szlachcic, Y., R. G. Adkins, Y. Cao, and J. S. Krause. 2014. Cardiometabolic changes and disparities among persons with spinal cord injury: A 17-year cohort study. Topics in Spinal Cord Injury Rehabilitation 20: 96-104.   
Cao, Y., A. Selassie, and J.S. Krause. 2013. Risk of Death after Hospital Discharge with Traumatic Spinal Cord Injury: A Population-Based Analysis, 1998-2009. Archives of Physical Medicine and Rehabilitation 94:1054-61.   
  
Cao, Y., J.S. Krause, N. DiPiro. 2013. Risk Factors for Mortality after Spinal Cord Injury in the USA. Spinal Cord 51:413-8.   
  
Kiage, N., P. Merrill, C. Robinson, Y. Cao, T. Malik, B. Hundley, P. Lao, S. Judd, M. Cushman, V. Howard, and E. Kabagambe. 2013. Intake of Trans Fat and All-cause Mortality in the Reasons for Geographical and Racial Differences in Stroke (REGARDS) Cohort. The American Journal of Clinical Nutrition 97: 1121-8.   
  
Krause, J.S., Y. Cao, J.L. Bozard. 2013. “Changes in Hospitalization, Physician Visits, and Self-Reported Fitness after Spinal Cord Injury: A Cross-Sequential Analysis of Age, Years Since Injury, and Age at Injury Onset.” Archives of Physical Medicine & Rehabilitation 94:32-7.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2012. “Project-induced displacement, secondary stressors, and health.” Social Science & Medicine 74:1130-8.   
  
Chen, Y., and Y. Cao. 2012. “Epidemiological Context and Concerns.” In Paul Kennedy (ed.), The Oxford Handbook of Rehabilitation Psychology. New York: Oxford University Press.   
  
Cao, Y., Y. Chen, and M. J. DeVivo. 2011. “Lifetime Direct Cost after Spinal Cord   
Injury.” Topics in Spinal Cord Injury Rehabilitation 16: 10-6.   
  
Chen, Y., Y. Cao, V. Allen, and J.S. Richards. 2011. “Weight Matter: Physical and Psychosocial Health of Persons with Spinal Cord Injury In Relation To Body Mass Index.” Archives of Physical Medicine Rehabilitation 92: 391-8.   
  
Hwang, S. S., Y. Cao, and J. Xi. 2011. “The Short-Term Impact of Involuntary Migration in China's Three Gorges: A Prospective Study.” Social Indicators Research 101:73–92.   
  
Botticello, A., Y. Chen, Y. Cao, and D. Tulsky. 2011. “Do Communities Matter to Rehabilitation Outcomes? An Investigation of the Effect of Community Socioeconomic and Urban Stratification on Health after Spinal Cord Injury.” Accepted by Archives of Physical Medicine Rehabilitation 92: 464-71.   
  
PRESENTATIONS AT PROFESSIONAL MEETINGS   
  
Cao, Y., Krause, J.S., & Clark, J.M.R. 2017. The Impacts of Pain Experiences and Pain Medication Use on the Risk of Mortality after SCI. Presented at the annual conference of the National Association of Rehabilitation Research and Training Center, Alexandria, VA.   
  
Cao, Y., Clark, J.M.R., & Krause, J.S. 2017. Pain intensity, interference, and medication use after SCI: relationship with mortality. Presented at the annual conference of the American Spinal Cord Injury Association, Albuquerque, NM.   
  
Cao, Y., Walker, E. A., & Krause, J.S. 2016. “Environmental barriers and subjective health among people with chronic spinal cord injury: a cohort study” Presented at the annual conference of NARRTC, Alexandria, VA.   
  
Krause, J.S., Cao, Y., & Newman, J. 2016. “The Natural Course of Aging after SCI among Those with Extraordinary Survival.” Presented at the annual conference of ASIA, Philadelphia, PA.   
  
Krause, J.S., Cao, Y., Clark, J. M. R., & Hudson, L. M. 2016. “Changes in Vocational Interests after the Onset of Spinal Cord Injury: A 10-year Longitudinal Study.” Presented at the annual conference of ASIA, Philadelphia, PA.   
  
Cao, Y., Krause, J.S., & Saunders, L.L. 2015. “Neighborhood Disadvantage and Self-Reported Health after Spinal Cord Injury.” Presented at the Academy of Spinal Cord Injury Professionals Annual Meeting, New Orleans, LA.   
  
Cao, Y., Krause, J.S., & Saunders, L.L. 2015. “Marital Status’ Impacts on 20-Year Life Situation Trajectories.” Presented at the Academy of Spinal Cord Injury Professionals Annual Meeting, New Orleans, LA.   
  
Chen, Y., Cao, Y., & Botticello. A. L. 2015. “Environment Matters: Contribution of Geographic Data to Understanding Spinal Cord Injury Incidence and Rehabilitation Outcomes.” Presented at the annual conference of ASIA, Montreal, Canada.   
  
Cao, Y. 2014. “Environmental Influence and Spinal Cord Injury: Understanding SCI Incidence and Health Outcomes by using Census Data.” Presented at the annual conference of American Congress of Rehabilitation Medicine, Toronto, Canada.   
  
Cao, Y., & Krause, J.S. 2014. “Emergency room visits and related hospitalizations among those with chronic spinal cord injury.” Presented at the 53rd annual Scientific Meeting of the International Spinal Cord Society, Maastricht, Netherlands.   
  
Cao, Y., & Krause, J.S. 2014. “Environmental Barriers and Subjective Health among People with Chronic Spinal Cord Injury: A Cohort Study.” Presented at the annual conference of the American Spinal Injury Association, San Antonio, TX.   
Saunders, L. L., Clarke, A., Cao, Y., & Krause, J.S. 2014. “Chronic disease prevalence in a cohort of persons with spinal cord injury.” Presented at the annual conference of NARRTC, Alexandria, VA.   
Krause, J.S., & Cao, Y. 2013 “Estimating life expectancy after SCI and TBI: Importance of economic factors.” Presented at the International Symposium on Life Care Planning, Atlanta, GA.   
  
Cao, Y. 2013. “Secondary Conditions and Mortality after TSCI—Longitudinal Analyses.” Presented at 2013 ASIA State of Science Pre Conference, Chicago, IL.   
  
Cao, Y. 2013. “Risk of Death after Hospital Discharge with Traumatic Spinal Cord Injury in South Carolina, 1998 – 2009.” Presented at 2013 Spinal Cord Injury Scientific Conference, Charleston, SC.   
  
Saunders, L.L., Krause, J.S., Saladin, M. E., Carpenter, M. J. & Cao, Y. 2013. “Cigarette Smoking in Adults with Spinal Cord Injury.” Presented at The National Association of Rehabilitation Research Training Centers 2013 Annual Meeting, Alexandria, VA.   
  
Krause, J.S., Dismuke L., Acuna, J., Sligh-Conway, C., Washington, K., Reed, K. S. & Cao, Y. 2013. “Race, Ethnicity, and Poverty after Spinal Cord Injury.” Presented at The National Association of Rehabilitation Research Training Centers 2013 Annual Meeting, Alexandria, VA.   
  
Cao, Y., Krause, J.S., & DiPiro, N. 2012. “Unmet Expectations of Adjustment and Depressive Symptoms among People with Spinal Cord Injury.” Presented at the Academy of Spinal Cord Injury Professionals Annual Meeting, Las Vegas, NV.   
  
Krause, J.S., Cao, Y., Harrison-Felix, C., Saunders, L.L., & Whiteneck, G. 2012. “Mortality and life expectancy after traumatic brain injury: The influence of demographic, etiology, discharge disability, and socio-environmental factors.” Presented at the 10th annual conference of the North American Brain Injury Society, Miami, FL.   
  
Cao, Y., & Krause, J.S. 2012. “Unmet Expectations of Adjustment and Life Satisfaction among People with Spinal Cord Injury.” Presented at the Paralyzed Veterans of America's Summit 2012, Las Vegas, NV.   
  
Saunders, L.L., Krause, J.S., & Selassie, A., and Cao, Y. 2012. “Healthcare access after spinal cord injury and traumatic brain injury: A comparison with the general population.” Presented at the National Association of Rehabilitation Research Training Centers 2012 Annual Meeting, Alexandria, VA.   
  
Saunders, L.L., Krause, J.S., & Acuna, J., and Cao, Y. 2012. “Association of race, socioeconomic status, and health care access with pressure ulcers after SCI.” Presented at the National Association of Rehabilitation Research Training Centers 2012 Annual Meeting, Alexandria, VA.   
  
Cao, Y., Y. Chen, and M. J. DeVivo. 2011. “The Trends of Suicide Mortality Rates after Spinal   
Cord Injury.” Presented at the ACRM-ASNR Annual Conference, Atlanta.   
  
Cao, Y. 2011. “Education Matters for People with Spinal Cord Injury.” Presented at Grand Rounds of Department of Physical Medicine and Rehabilitation at UAB.   
  
Cao, Y. and Y. Chen. 2010. “Cumulative Effect of Education over Time on Health after Spinal Cord Injury.” Presented at American Public Health Association 2010 Annual Meeting, Denver.   
  
Chen Y., Cao Y., Allen V., and Richards J.S. 2010. “Impact of underweight on physical and psychological health of persons with spinal cord injury.” Presented at Annual Scientific Meeting of the American Spinal Injury Association, Nashville.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2009. “Rural-Urban Structural Inequality and the Development-   
Induced Migration in China.” Presented at Annual Meeting of the American   
Sociological Association, San Francisco.   
  
Chen Y., Y. Cao, V. Allen, and J. S. Richards. 2009. “Weight matter: physical and psychosocial health of persons with spinal cord injury in relation to body mass index.” Presented at International Spinal Cord Society Annual Scientific Meeting, Florence, Italy.   
  
Xi, J., S. S. Hwang, and Y. Cao. 2009. “Ecological Context and Immigrants’ Earnings: English Ability as a Mediator.” Presented at Annual Meeting of the American Sociological Association, San Francisco.   
  
Chen Y., Y. Cao, P. Klebine, K.A. Hubbert, V.W. Mark. 2009. “Home-based Intervention on Weight Control of Persons with Spinal Cord Injury.” Presented at Annual Scientific Meeting of the American Spinal Injury Association, Dallas.   
  
Cao, Y., S.S. Hwang, and J. Xi. 2008. “Project-induced Migration, Secondary Stressors, and Health: A Panel Analysis of Migrants of the Three Gorges Dam Project, China.” Presented at the annual meeting of the American Sociological Association, Boston.   
  
Hwang, S.S., Y. Cao, and J. Xi. 2008. “The Short-Term Social, Economic, and Health Impact of China’s Three Gorges Dam Project: A Prospective Study.” Presented at the annual meeting of the American Sociological Association, Boston.   
  
Hwang, S.S., Y. Cao, and J. Xi. 2007. “Project-induced Migration and Depression: A Panel Analysis.” Presented at the annual meeting of the American Sociological Association, New York.   
  
Hwang, S.S., J. Xi, and Y. Cao. 2007. “The Conditional Relationship between English Language Fluency and Earnings among U.S. Immigrants.” Presented at the annual meeting of the American Sociological Association, New York.   
  
Hwang, S.S., J. Xi, and Y. Cao. 2006. “Structural and Individual Covariates of English Language Proficiency.” Presented at the annual meeting of the American Sociological Association, Montreal, Canada.   
  
Hwang, S.S., Juan Xi, X. Feng, Y. Cao, and X. Qiao. 2006. “Anticipation of Migration and Psychological Stress.” Presented at the International Symposium on Urbanization, Gender, and Public Health. Shanghai Academy of Social Sciences. Shanghai, China.   
  
GRANT AWARDED   
  
South Carolina Spinal Cord Injury Fund (Grant # SCIRF 2016 I-04) “The indirect costs of SCI in South Carolina due to lost earnings: Relationships with secondary health conditions and medical expenses” (2017-2019). $142,973.   
Role: Principle investigator.   
  
Administration for Community Living (Grant # 90IF0070-02-02). “Prevalence of Chronic Disease after Spinal Cord Injury: A Longitudinal Study” (2015-2018). $ 599,482.   
Role: Principle investigator.   
  
Administration for Community Living (Grant # 90DP0098). “A multidisciplinary approach to translating new knowledge into practice to promote health and well-being after spinal cord injury” (2016-2019), $449,638.   
Role: Co-director.   
  
Administration for Community Living (Grant # 90IF0119). “Number, primary and secondary diagnoses, and costs of inpatient hospitalizations in a population-based cohort of people with spinal cord injury” (2016-2019), $599,012.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # 90IF0112). “Aging and spinal cord injury: A 45-year longitudinal study” (2016-2019), $598,923.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # 90SI5016). “Spinal Cord Injury Model Systems center grant, Shepherd Center, Atlanta, Georgia” (2016-2021), $225,000.   
Role: Co-investigator.   
  
Administration for Community Living (Grant # H133G140048) “Risk of Early Mortality after Spinal Cord Injury” (2014-2017). $ 600,000.   
Role: Co-investigator   
  
South Carolina Spinal Cord Injury Fund (Grant # SCIRF 11-006) “The Application of Medical Sociology to the Study of Health and Mortality after Spinal Cord Injury” (2011-2015). $124,875. Role: Principle investigator.   
  
CURRENT MEMBERSHIPS   
  
American Congress of Rehabilitation Medicine   
  
American Public Health Association   
  
American Spinal Injury Association   
  
International Spinal Cord Society

***James Krause, PhD***  
Medical University of South Carolina

*(no CV uploaded)*

**122**

**The effects of older age on the initial spine care of patients with acute spine trauma**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Julio C. Furlan   
Assistant Professor   
  
1. EDUCATION   
Degrees   
2004 - 2006 MSc, Clinical Epidemiology, Department of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. David Urbach   
1994 - 1999 MBA, Healthcare System and Hospital Administration, São Paulo Business School, Getúlio Vargas Foundation, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana Maria Malik   
1994 - 1999 PhD, Surgery, Department of Surgery, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Anoi Castro Cordeiro   
1984 - 1999 BA, LL.B. Mackenzie University, São Paulo, São Paulo, Brazil   
1983 - 1988 MD, University of São Paulo, São Paulo, São Paulo, Brazil   
Postgraduate, Research and Specialty Training   
2014 Sep 1 - 2016 Jun 30 Clinical Fellowship, Neurorehabilitation and Neural Repair, Department of Medicine, Division of Physical Medicine and Rehabilitation and Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. B. Catharine Craven, Dr. David Tang-Wai   
2009 Jul 1 - 2014 Jun 30 Residency, Neurology, Department of Medicine, Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Marika Hohol, Dr. David Tang-Wai   
2003 - 2007 Clinical Research Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Michael G. Fehlings   
2001 - 2003 Post-Doctoral Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Andrei V. Krassioukov   
2000 - 2001 Clinical Research Fellowship, Head and Neck Surgery, Head and Neck Surgery, Department of Surgery, Mount Sinai Hospital, Toronto, Ontario, Canada, Supervisor(s): Dr. Irving B. Rosen   
1994 - 1996 Clinical Fellowship, Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 Feb 1 - 1994 Jan 31 Complementary Specialization (similar to residency training), Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 - 1993 Post-Graduate Diploma, Occupational Medicine, Department of Preventive Medicine, Faculty of Medicine, São Francisco University, São Paulo, São Paulo, Brazil   
1992 - 1993 Post-Graduate Diploma, Hospital Administration and Health Systems, São Paulo Business Administration School, Getúlio Vargas Foundation and University Hospital, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil   
1991 Feb 1 - 1992 Jan 31 Residency, Hospital Administration and Healthcare Systems, Department of Preventive Medicine, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana M. Malik   
1989 Feb 1 - 1991 Jan 31 Residency, General Surgery, Department of Surgery, Division of General Surgery and Trauma Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Dario Birolini   
Qualifications, Certifications and Licenses   
2015 May - present Fellow, Neurology, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 999157   
2009 Jul - present Canadian Medical Protective association (CMPA), Toronto, Ontario, Canada, License / Membership #: 20082118   
2009 Jul - present College of Physicians and Surgeons of Ontario (CPSO), Toronto, Ontario, Canada, License / Membership #: 090628   
2007 - present Licentiate, Medical Council of Canada (LMCC), Ottawa, Ontario, Canada, License / Membership #: 108367   
1999 May - present Organization of the Lawyers of Brazil, São Paulo, São Paulo, Brazil, License / Membership #: 167674   
1993 Aug - 1999 Nov Member, Head and Neck Surgery, Head and Neck Surgery, Society of Head and Neck Surgery, São Paulo, São Paulo, Brazil   
1988 Feb - 1999 Nov Regional Council of Medicine, São Paulo, São Paulo, Brazil, License / Membership #: 62585   
2. EMPLOYMENT   
Current Appointments   
2016 Sep 1 - present Assistant Professor, Division of Physical Medicine and Rehabilitation, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada   
2016 - present Clinician Investigator (Neurologist), Division of Physical Medicine and Rehabilitation, Toronto Rehabilitation Institute, Lyndhurst Centre, Toronto, Ontario, Canada   
Previous Appointments   
RESEARCH   
2007 - 2012 Associate Research Scientist, Department of Genetics and Development, Toronto Western Research Institute, University Health Network, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
INTERNATIONAL   
Received   
  
2016 Apr Fellow Research Travel Scholarship, American Academy of Neurology, Vancouver, British Columbia, Canada. (Distinction)   
2014 Oct CNS Resident Award for the best research paper, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
2014 Oct Depuy-Synthes Award, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
for resident research on spinal cord and spinal column injury for the best research paper.   
2012 Apr Resident Research Travel Scholarship, American Academy of Neurology, New Orleans, Louisiana, United States. (Distinction)   
2010 Apr Resident Research Travel Scholarship, American Academy of Neurology, Toronto, Ontario, Canada. (Distinction)   
2009 Sep Award for the Best Paper Published by an ASIA Member, Congress on Spinal Cord Medicine and Rehabilitation & 35th Annual Scientific Meeting of ASIA, Dallas, Texas, United States. (Distinction)   
2008 Jun Second Prize ASIA Poster Award, 34th Annual Meeting of the American Spinal Injury Association, San Diego, California, United States. (Distinction)   
2007 Nov - 2007 Dec Second Place Clinical Research Award, Cervical Spine Research Society’s Research Committee, San Francisco, California, United States. (Distinction)   
2006 Nov - 2006 Dec Second Place Basic Science Research Award, Cervical Spine Research Society’s Research Committee, West Palm Beach, Florida, United States. (Distinction)   
2006 May Travel Award, 8th International Neurotrauma Symposium, Rotterdam, Netherlands. (Distinction)   
2005 Nov Travel Award, 23rd Annual National Neurotrauma Society Symposium, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
2004 Sep Travel Award, 7th International Neurotrauma Symposium, Adelaide, Australia. (Distinction)   
for a high ranked abstract.   
2004 Mar Poster Award for Excellence in Clinical Spine Research, 2004 Annual Meeting of the American Association of Neurological Surgeons / CNS Section on Disorders of the Spine and Peripheral Nerves, San Diego, California, United States. (Distinction)   
2003 Oct Travel Award, 2003 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Ottawa, Ontario, Canada. (Distinction)   
for high ranked abstracts.   
2003 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Palm Beach, Florida, United States. (Distinction)   
based on high ranked abstracts.   
2003 Jul 2003 ISAN Prize for the best clinical study, 2003 Meeting of the International Society for Autonomic Neuroscience, Calgary, Alberta, Canada. (Distinction)   
2002 Oct Travel Award, 2002 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Vancouver, British Columbia, Canada. (Distinction)   
for high ranked abstracts.   
2001 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
  
NATIONAL   
Received   
  
2016 May 2nd Place Case Report Presentation, 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation, London, Ontario, Canada. (Distinction)   
2015 Jun Andre Barbeau Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Basic Science Research.   
2015 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Vancouver, British Columbia, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Resident Research Prize, 2011 PSI Foundation, Toronto, Ontario, Canada. (Distinction)   
for Excellence in Research Paper.   
2010 Oct First Place Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2010 Oct The People’s Choice Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the best poster presentation.   
2010 Jun Meloche Prize, Canadian Headache Society, Quebec City, Quebec, Canada. (Distinction)   
2009 May Best Clinical Science Research Poster Award, Annual Conference of the Canadian Pain Society, Quebec City, Quebec, Canada. (Distinction)   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2005 Nov Travel Award, 2005 Annual Scientific Meeting of the Canadian Society of Internal Medicine, Toronto, Ontario, Canada. (Distinction)   
2004 Dec Award of Merit in Clinical Research, 2004 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
2004 Jun The Neurocritical Care Prize, 39th Canadian Congress of Neurological Science, Calgary, Alberta, Canada. (Distinction)   
for the best paper on neurocritical care.   
2002 2002 D. Harold Copp Young Investigator in Training Award, Annual CDA/CSEM Meeting, Vancouver, British Columbia, Canada. (Distinction)   
for the abstract in endocrinology and metabolism.   
1991 Sep Anísio Costa Toledo Prize, XIII Brazilian Congress of Head and Neck Surgery, Caldas Novas, Goiás, Brazil. (Distinction)   
for outstanding Resident study in Head and Neck Surgery.   
  
PROVINCIAL / REGIONAL   
Received   
  
2007 Oct First Place Award, Research in the 15th Interurban Spinal Cord Injury Conference, Hamilton, Ontario, Canada. (Distinction)   
for the highest ranked abstract.   
2003 Dec Award of Merit in Basic Science, 2003 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
  
LOCAL   
Received   
  
2016 Apr OTR Conference Travel Award, University Health Network, Toronto, Ontario, Canada. (Distinction)   
2009 Oct Horsey Prize for Clinical Research (Second Place), Co-author, Division of Neurosurgery, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2008 May First Prize in the Wyeth Award poster competition, 2008 Gallie Day, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2006 Jun Runner-up Award for the second best oral presentation, 2006 Toronto Western Research Institute Research Day, Toronto, Ontario, Canada. (Distinction)   
2006 May First Place Award for the best presentation, 2006 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
2004 Jun First Place Award for the best presentation, 2004 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 Dec - present Member, Cervical Spine Research Society (CSRS), 32619-1   
2010 - present Member, American Academy of Neurology (AAN), 172625   
2010 - present Member, Canadian Neurological Science Federation/Canadian Neurological Society (CNSF/CNS), 4751   
2009 Jun - present Member, Canadian Medical Association (CMA), 152353   
2009 Jun - present Member, Ontario Medical Association (OMA), 1065762   
2004 - present Member, American Spinal Injury Association (ASIA), 109   
2004 - present Member, National Neurotrauma Society (NNS)   
  
Administrative Activities   
NATIONAL   
7th National Spinal Cord Injury Conference   
2016 Apr 14 - present Member, Planning Advisory Committee, Toronto, Ontario, Canada.   
  
LOCAL   
Toronto Rehabilitation Institute   
2016 Nov 9 - present Research Volunteer Pool (RVP) Steering Commitee, Toronto, Ontario, Canada.   
  
Peer Review Activities   
GRANT REVIEWS   
Internal Grant Reviewer   
2015 - present Toronto Rehabilitation Institute, Number of Reviews: 2   
  
MANUSCRIPT REVIEWS   
Reviewer   
2014 - present Acta Neurologica Scandinavia, Number of Reviews: 1   
2014 - present CMAJ, Number of Reviews: 4   
2014 - present PLoS, Number of Reviews: 2   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Acute Spinal Cord Injury. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings, and James Harrop. Collaborators: Drs. Jefferson R. Wilson, Anthony Burns, Brian Kwon, Lindsay Tetreault, Bizhan Aarabi, Paul Anderson, Paul M. Arnold, Darrel Brodke, Kazuhiro Chiba, Gregory Hawryluk, Langston Holly, Susan Howley, Tara Jeji, Sukhvinder Kalsi-Ryan, Mark Kotter, Shekar Kurpad, Ralph Marino, Allan R. Martin, Eric Massicotte, Geno Merli, Hiroaki Nakashima, Narihito Nagoshi, Katherine Palmieri, Mohammed Shamji, Anoushka Singh, Eve Tsai, Alexander.   
This guideline is divided into five sections. The following sections describe the key knowledge gaps, previous published guidelines and rationale for each topic: (a)Timing of Surgical Decompression; (b) The Use of Methylprednisolone Sodium Succinate; (c) The Type and Timing of Anticoagulation Prophylaxis; (d) The Role of Baseline Magnetic Resonance Imaging in Clinical Decision-Making and Prognostication; and (e) The Type and Timing of Rehabilitation.   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Patients with Degenerative Cervical Myelopathy. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings and Jeffrey C. Wang. Collaborators: Drs. Lindsay A. Tetreault, Mohammed Shamji, Daniel Riew, James Middleton, Bizhan Aarabi, Paul M. Arnold, Darrel Brodke, Anthony Burns, Simon Carette, Robert Chen, Kazuhiro Chiba, James Harrop, Langston Holly, Sukhvinder Kalsi-Ryan, Mark Kotter, Brian Kwon, Allan R. Martin, James Milligan, Hiroaki Nakashima, Narihito Nagoshi, John Rhee, Anoushka Singh, Sumeet Sodhi, Jefferson Wilson, Albert Yee.   
The main objective of this guideline is to outline how to best manage patients with myelopathy and nonmyelopathic patients with evidence of cervical cord compression. Five systematic reviews were conducted to summarize the current body of evidence. Recommendations are provided for: (a) Patients with Severe DCM; (b) Patients with Moderate DCM; (c) Patients with Mild DCM; (d) Nonmyelopathic patients with evidence of cord compression without signs and symptoms of radiculopathy; and (e) Nonmyelopathic patients with image evidence of cord compression and clinical and/or electrophysiological evidence of radiculopathy.   
2009 - present Topic leader. Epidemiology of Traumatic SCI. The SCIRE Project, Vancouver, British Columbia, Canada. Supervisor(s): Furlan, Julio Cesar. Collaborator(s): Krassioukov, Andrei V.; Miller, William C.; Trenaman, Logan M.   
“Epidemiology of Traumatic SCI” is 1 of 17 topics relevant to SCI rehabilitation and community reintegration. The members of the Spinal Cord Injury Research Evidence (SCIRE) Project have been reviewing, evaluating and translating research knowledge into concise and clear reports on the best SCI rehabilitation practices for health professionals and other stakeholders. The most recent version of the reports is publically available at www.scireproject.com.   
  
C. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2010 - 2012 Principal Investigator. The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Christopher Reeve Foundation. 120,000 USD. [Grants]   
  
2009 Principal Investigator. Economic impact analysis and process benchmarking appraisal of early surgical decompression for traumatic cervical spinal cord injury. Rick Hansen Foundation and SCI Solutions Network – Rapid Response Grant. 97,517.14 CAD. [Grants]   
  
2008 - 2009 Principal Investigator. Economic impact of early surgical decompression for traumatic spinal cord injury: Cost-effectiveness and cost utility analyses using insurer-based health costing data. Cervical Spine Research Society. 25,477 USD. [Grants]   
  
2007 - 2011 Co-Investigator. Surgical versus nonoperative treatment of metastatic epidural spinal cord compression. AOSpine International. PI: Fehlings, Michael. 304,020 USD. [Grants]   
  
2005 - 2006 Principal Investigator. The effects of gender on outcomes after traumatic spinal cord injury: A combined approach using bioinformatics and molecular/confocal analysis of injured spinal cord tissue. Henry A. Beatty Scholarship. Collaborator(s): Dr. Michael Fehlings. 12,000. [Grants]   
  
2. SALARY SUPPORT AND OTHER FUNDING   
Personal Salary Support   
2016 - 2018 Salary support award. Wings for Life Research Foundation. 114,000 EUR. Salzburg, Austria.   
  
Trainee Salary Support   
2013 Jul - 2014 Jun A cost-utility comparing IVIg with PLEX in the management of patients with myasthenia gravis. Joseph M West Memorial Fund and Miriam Neveren Memorial Award (University of Toronto). 14,634 CAD. Toronto, Ontario, Canada.   
  
2012 Jul - 2013 Jun Serum hemoglobin concentration on admission as a potential predictor of outcomes after acute stroke. Chisholm Memorial Fellowship, William H. Fenwick Research Fellowship and Joseph M. West Family Memorial Fund (University of Toronto). 12,050 CAD. Toronto, Ontario, Canada.   
  
2011 Jul - 2012 Jun White blood cell and differential counts as a marker of prognosis after acute ischemic stroke. Joseph M. West Family Memorial Fund, Chisholm Memorial Fellowship, Edward Christie Stevens Fellowship in Medicine (University of Toronto). 10,312.48 CAD. Toronto, Ontario, Canada.   
  
2010 Jul - 2011 Jun The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Edward Christie Stevens Fellowship, Javenthey Soobiah Scholarship, Nellie L. Farthing Fellowship, William S. Fenwick Fellowship (University of Toronto). 19,960 CAD. Toronto, Ontario, Canada.   
  
D. Publications   
1. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Craven BC. Psychometric analysis and critical appraisal of the original, revised, and modified versions of the Japanese Orthopaedic Association score in the assessment of patients with cervical spondylotic myelopathy. NEUROSURGICAL FOCUS. 2016 Jun;40(6):E6, 1-15. Principal Author.   
2. Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin with plasma exchange in the management of patients with myasthenia gravis: Different perspectives for different payers. MUSCLE AND NERVE. 2016 Jun;53(6):872-6. Principal Author.   
3. Furlan JC, Craven BC, Massicotte EM, Fehlings MG. Early versus delayed surgical decompression of spinal cord after traumatic cervical spinal cord injury: A cost-utility analysis. WORLD NEUROSURGERY. 2016 Apr;88:166-74. Principal Author.   
4. Furlan JC, Fang J, Silver FL. Outcomes after Acute Ischemic Stroke in Patients with Thrombocytopenia or Thrombocytosis. JOURNAL OF THE NEUROLOGICAL SCIENCES. 2016 Mar;15(362):198-203. Principal Author.   
5. Furlan JC, Verocai F, Palmares X, Fehlings MG. Electrocardiographic abnormalities in the early stage following traumatic spinal cord injury. SPINAL CORD. 2016 Feb 16. Epub ahead of print. Principal Author.   
6. Furlan JC, Fang J, Silver FL. Acute Ischemic Stroke and Abnormal Blood Hemoglobin Concentration. ACTA NEUROLOGICA SCANDINAVICA. 2015 Oct 20. Epub ahead of print. Principal Author.   
7. Furlan JC, Chui MH, Croul SE, Kongkham P. Mystery Case: Tanycytic ependymoma of the conus medullaris - a rare cause of low back pain. NEUROLOGY. 2014 Jun 17;82(24):e212-3. Principal Author.   
8. Hawryluk GWJ, Furlan JC, Austin J, Fehlings MG. Individual Characteristics and Management Decisions Affect Outcome of Anticoagulated Patients with Intracranial Hemorrhage. WORLD JOURNAL OF NEUROSURGERY. 2014 May;81(5-6):742-51. May-Jun. Coauthor or Collaborator.   
9. Furlan JC, Henri-Bhargava AR, Freedman M. Clomipramine in the treatment of compulsive behavior in frontotemporal dementia: A case series. ALZHEIMER DISEASE & ASSOCIATED DISEASES. 2014;28(1):95-8. Principal Author.   
10. Furlan JC. Autonomic dysreflexia: A Clinical emergency. JOURNAL OF TRAUMA AND ACUTE CARE SURGERY. 2013 Sep;75(3):496-500. Principal Author.   
11. Furlan JC, Sander L., Hitzig, B., Catharine Craven. The influence of age on functional recovery of adults with spinal cord injury or disease after inpatient rehabilitative care. AGING CLINICAL AND EXPERIMENTAL RESEARCH. 2013 Aug;25(4):463-71. Principal Author.   
12. Furlan JC, Fehlings MG. Blood Alcohol Concentration as a Determinant of Outcomes after Traumatic Spinal Cord Injury. EUROPEAN JOURNAL OF NEUROLOGY. 2013 Jul;20(7):1101-6. Principal Author.   
13. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Global incidence and prevalence of traumatic spinal cord injury. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):456-64. Principal Author.   
14. Arvin B, Kalsi-Ryan S, Mercier D, Furlan JC, Massicotte EM, Fehlings MG. Pre-operative MRI imaging is associated with baseline neurological status and can predict postoperative recovery in patients with cervical spondylotic myelopathy. SPINE. 2013 Jun 15;38(14):1170-6. Coauthor or Collaborator.   
15. Furlan JC, Tung K, Fehlings MG. Process Benchmarking Appraisal of Early Surgical Decompression of Spinal Cord following Traumatic Cervical Spinal Cord Injury: Opportunities to Enhance the Time to Definitive Treatment. JOURNAL OF NEUROTRAUMA. 2013 Mar 15;30(6):487-91. Principal Author.   
16. Furlan JC, Hawryluk GWJ, Austin J, Fehlings MG. Spinal Hemorrhage during Anticoagulation: A Unique Form of Central Nervous System Hemorrhage. JNNP. 2012 Jul;83(7):746-52. Principal Author.   
17. Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. The combined use of surgery and radiotherapy to treat patients with epidural cord compression due to metastatic disease: A cost-utility analysis. NEURO-ONCOLOGY. 2012 May;14(5):631-40. Principal Author.   
18. Nelli JM, Nicholson K, Fatima Lakha S, Louffat AF, Chapparo L, Furlan JC, Mailis-Gagnon A. Use of a modified Comprehensive Pain Evaluation Questionnaire (CPEQ): characteristics and functional status of patients on entry to a tertiary care pain clinic. PAIN RESEARCH AND MANAGEMENT. 2012 Mar;17(2):75-82. Mar-Apr. Coauthor or Collaborator.   
Case Reports   
1. Furlan JC, Robinson L, Murray B. Stepwise paralysis in a patient with adenocarcinoma of lung. NEUROLOGY; 2016 Mar 22. 5 p. 86(12):e122-7. Principal Author.   
2. Furlan JC, Sundaram ANE. What is your call? Sudden onset anisocoria in a patient with upper respiratory tract infection. CMAJ; 2014 Jan 7. 4 p. 186(1):57-61. Principal Author.   
3. Furlan JC, Valiante T, Dickson B, Kiehl T-R. Paraspinal desmoid-type fibromatosis as a cause of low back pain. SPINE JOURNAL; 2013 Dec 1. 1 p. 13(12):1958-9. Principal Author.   
Book Chapters   
1. Furlan JC. World Perspective of Epidemiology of Cerebrovascular Disease. In: In: The influence of Sleep in the Primary and Secondary Prevention of Cerebrovascular Disease. Coelho FMS; 2014. In Press. Principal Author.   
2. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Epidemiology of Traumatic SCI. In: Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, Connolly SJ, Mehta S, Sakakibara BM, editor(s). Spinal Cord Injury Rehabilitation Evidence. 4.0. Vancouver (Canada); 2012. Principal Author.   
3. Furlan JC, Tator CH. Global Epidemiology of Traumatic Spinal Cord Injury. In: Morganti-Kossman C, Raghupathi R, Maas Andrew, editor(s). Book Traumatic Brain & Spinal Cord Injury: Challenges & developments. Cambridge (United Kingdom): Cambridge University Press; 2012. p. 216-228. Principal Author.   
4. Cadotte DW, Furlan JC, Fehlings MG. Timing of surgery for spinal cord injury. In: Ghogawala Z, Krishnaney AA, Steinmetz MP, Batjer HH, Benzel EC, editor(s). The Evidence for Neurosurgery. Shrewsbury (United Kingdom): tfm Publishing Limited; 2012. p. 471-483. Senior Responsible Author.   
  
Editorials   
1. Furlan JC. Databases and registries on traumatic spinal cord injury in Canada. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):454-5. Principal Author.   
Other Publications   
1. Furlan JC. Post-Stroke mortality elevated by high and low blood platelet counts. The Chronicle in Neurology + Psychiatry (by John Evans). Principal Author.   
E. Presentations and Special Lectures   
1. INTERNATIONAL   
Presented Abstracts   
2016 Apr 17 Presenter. Acute care and neurorehabilitation management of the elderly with traumatic cervical spinal cord injury: A cost-utility analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Poster Presentation at Scientific Meeting on Neurology - Neurorehabilitation.   
2016 Apr 16 Presenter. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Massicotte EM, Craven BC. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 16 Presenter. Intravenous Immunoglobulin versus Plasma Exchange in the Management of Patients with Myasthenia Gravis: A Cost-Minimization Analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Poster Presentation at Scientific Meeting on Neurology - Neuromuscular Disorders.   
2016 Apr 14 Presenter. A cost-utility analysis comparing younger versus elderly regarding acute care and rehabilitation management after acute traumatic cervical spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Oral Presentation on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Does age at the time of trauma affect the inflammatory response, glial and axonal survival after traumatic spinal cord injury? 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Abnormal ECG parameters in the early phase following acute traumatic spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Palmares X, Verocai F, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2014 Oct 21 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, Session on Neurotrauma and Critical Care. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2014 Oct 20 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, General Scientific Session II. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2013 May 30 Presenter. Decompressive Surgery and Radiotherapy in the Palliative Care of Metastatic Spinal Cord Compression: Cost-Utility of a New Treatment Standard. 13th World Congress of the European Association for Palliative Care (EAPC). Prague, Czech Republic. Presenter(s): Klinger CA, Furlan JC, Chan K, Sandoval G., Lam K, Patchell RA, Laporte A, Fehlings MG. May 30th to June 2nd 2013. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 20 Presenter. Electrocardiogram abnormalities within the first 72 hours following acute traumatic spinal cord injury. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Palmares X, Verocai F. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 18 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Jul 22 Presenter. Early Versus Lates Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Neurotrauma Symposium. Phoenix, Arizona, United States. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr 26 Presenter. Case Studies: Unusual Diagnostic and Management of Cases in Neuromuscular Disease. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Tarnopolosky M, Dodig D. Oral Presentation on Neurology.   
2012 Apr 26 Presenter. Is Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI) Feasible and Cost-Effective? 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 25 Presenter. Palliative Care of Patients with Metastatic Spinal Cord Cancer: A Cost-Utility Analysis Comparing the Standard of Care with Direct Decompressive Surgical Resection Followed by Radiotherapy. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 24 Presenter. White Blood Cell Count as a Marker of Stroke Severity and Clinical Outcomes after Acute Ischemic Stroke. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI): A Process Benchmarking Appraisal. 2012 Annual Meeting of the American Association of Neurological Surgeons. Miami, Florida, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2. NATIONAL   
Invited Lectures and Presentations   
2016 May 27 Invited Speaker. A Review on Cervical Spondylotic Myelopathy. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation (SCI Special Interest Group Session). London, Ontario, Canada. Presenter(s): Furlan JC.   
2014 Oct 3 Invited Speaker. The Science and Art of Measuring Outcomes after Spinal Cord Injury. 6th National Spinal Cord Injury Conference – Bioinformatics Inform SCI Rehabilitation. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2016 May 28 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Oral Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 27 Presenter. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 26 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2013 May 24 Presenter. A Cost-Utility Analysis and Feasibility Study on Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury. 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2013 May 23 Presenter. Is white blood cell count a key determinant of stroke severity and clinical outcomes after acute ischemic stroke? 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology.   
2012 Jun 5 Presenter. A Second Chance to Make a First Impression: A Neuromuscular Challenge. 2012 Annual Meeting of the Neuromuscular Special Interest Group, Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Rotstein D, Katzberg H. Oral Presentation at Scientific Meeting on Neurology.   
2012 May Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2012 Presenter. A Global Perspective on the Frequency of the Leading Causes of Spinal Cord Injury. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Sakakibara BM, Miller WC, Furlan JC, Von Elm E, Krassioukov AV. Poster Presentation at Scientific Meeting on Neurology.   
Presented and Published Abstracts   
2015 Jun 12 Presenter. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S19. Abstract E.09. Principal Author.   
2015 Jun 12 Presenter. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S15. Abstract E.01. Principal Author.   
2015 Jun 10 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. The Canadian Journal of Neurological Sciences. 2015 Jun 10;42(Supplement 1):S9. Abstract B.01.   
2015 Jun 10 Presenter. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015;42(Supplement 1):S9. Abstract B.02. Coauthor or Collaborator.   
2012 Oct 20 Presenter. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Tsung K, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Tsung K, Fehlings MG. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):433. Abstract ID# 22. Principal Author.   
2012 Oct 20 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 5th Natonal Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Popovic MR, Craven BC. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. JSCM. 2012 Oct;35(5):433. Abstract ID# 68. Principal Author.   
2012 Oct 19 Presenter. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):454. Abstract ID# 51. Principal Author.   
2012 Jun 8 Presenter. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL.   
  
Publication Details:   
Furlan JC, Vergouwen M, Silver FL. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S30. Abstract L08. Principal Author.   
2012 Jun 7 Presenter. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation, CNSS Chair’s Select Plenary Presentations. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3):S10. Abstract B01. Principal Author.   
2012 Jun 7 Presenter. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S50. Abstract P060. Principal Author.   
3. PROVINCIAL / REGIONAL   
4. LOCAL   
Invited Lectures and Presentations   
2015 Mar 5 Invited Speaker. An Under-Recognized Cardiovascular Complication of “Allbuff’s Disease”. Brain Science Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Sep Invited Speaker. What are the two diagnoses? (Case discussion and review on neuromyelitis optica with superimposed autonomic dysreflexia). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Aug Invited Speaker. “Little sparks kindle great FIRES” (Case discussion and review on FIRES). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Apr Invited Speaker. An unusual cause of back pain: What is your call? Slide Club of the Division of Neuropathology, University of Toronto (Case discussion on lumbar fibromatosis). Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. “Where there is smoke, there is fire!” (Case discussion and review on FIRES). Neuroscience Rounds at the Hospital for Sick Children, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. The Superman’s worst headache: An under-recognized medical condition. Neurology Grand Rounds at the Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Aug 17 Invited Speaker. Spinal Arterial-Venous Fistula: A case and brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jul 6 Invited Speaker. Approach to Acute Myelopathies: A brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 May 10 Invited Speaker. Timing for Anticoagulation after CNS Hemorrhage in Patients with High Risk for Thromboembolic Events. Brain Sciences Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Mar Invited Speaker. Autonomic dysreflexia: An under-recognized clinical entity. St. Michael’s Hospital Neuroscience Rounds. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Feb Invited Speaker. An under-recognized cause of headache. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jan Invited Speaker. Anticoagulation after CNS Hemorrhage in Patients with High Thromboembolic Risk: “A Bloody Decision”. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2012 Nov Presenter. The relevance of age on the inflammatory response and axonal survival following traumatic cervical spinal cord injury: Preliminary results of a histopathological and immunohistochemical examination of postmortem human spinal cord tissue. 2012 Faculty Research Day, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
F. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 Jul - 2015 Jun Co-Supervisor. Engineering student. Karlo Nesovic, Electrical and Computer Engineering, Biomedical Engineering. Development of an innovative diagnostic tool using somatosensory evoked potentials elicited by proprioceptive stimulation, Non-thesis Project. Supervisor(s): Popovic, Milos R. Completed 2018.   
Undergraduate MD   
2008 Jan - 2008 Oct Primary Supervisor. Deepa Kattail. Supervisee Position: Research student. Epidemiology and outcomes of traumatic spinal cord injury, Non-thesis Project. Awards: First Prize in the Wyeth Award poster competition in the 2008 Gallie Day, Department of Surgery, University of Toronto. Collaborator(s): Dr. Michael G. Fehlings. Completed 2008.   
Postgraduate MD   
2016 Nov - 2017 Jan Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. The economics on the care of veterans with spinal cord injury or disease., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2017.   
2016 Sep - 2016 Dec Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. Epidemiology of war-related spinal cord injury among combatants., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2016.   
2016 Aug - 2016 Nov Primary Supervisor. PGY 1. Dr. Jason Liang. Supervisee Position: PGY 1. Music therapy for pain relief in patients with non-cancer pain, Non-thesis Project. Completed 2016.

***Michael G, MD, PhD, FRCSC***  
Toronto Western Hospital and University of Toronto

**CV:**  
Dr. Fehlings, MD, PhD, is the Vice Chair Research for the Department of Surgery at the University of Toronto (UofT) and Head of the Spinal Program at Toronto Western Hospital, University Health Network. Dr. Fehlings is a Professor of Neurosurgery at UofT, holds the Gerry and Tootsie Halbert Chair in Neural Repair and Regeneration, is a Scientist at the McEwen Centre for Regenerative Medicine, a McLaughlin Scholar in Molecular Medicine, and is the Co-Director of the newly formed UofT Spine Program. After receiving his Medical degree from the UofT in 1983, he went on to complete his PhD in neuroscience at the U of T (1989). He then completed a clinical fellowship and postdoctoral research fellowship at the New York University Medical Center. He is a Fellow of the American College of Surgeons and a Fellow of the Royal College of Surgeons of Canada. He is the current Chair of the Spinal Cord Injury Knowledge Forum (AOSpine International), Chairman of the AOSpine International Outcome & Clinical Research Committee, President of the International Neurotrauama Society and past President of the Cervical Spine Research Society. He has had research funding support from multiple agencies such as the Wings for Life Spinal Cord Research Foundation, the Cervical Spine Research Society, AOSpine North America, the Heart and Stroke Foundation of Ontario, the Craig H. Neilsen Foundation, the Canadian Institutes of Health Research, the Christopher Reeve Foundation, the Ontario Neurotrauma Foundation, the Rick Hansen Institute, and Paralyzed Veterans of America. Dr. Fehlings combines an active clinical practice in complex spinal surgery with a translationally oriented research program focused on discovering novel treatments for the injured brain and spinal cord. This is reflected by the publication of 790 peer-reviewed articles (h-index 79) chiefly in the area of central nervous system injury and complex spinal surgery. Dr. Fehlings leads a multi-disciplinary team of researchers that is examining the application of stem cells, nanotechnology and tissue engineering for central nervous system repair and regeneration. Clinically, he recently led the international effort to develop clinical practice guidelines for degenerative cervical myelopathy and traumatic spinal cord injury (SCI). Furthermore, he has been involved in a number of international clinical trials such as the examination of timing for decompressive surgery following SCI and the use of riluzole as a neuroprotective drug in patients with SCI. Dr. Michael Fehlings has received numerous prestigious awards including the Gold Medal in Surgery from the Royal College of Physicians and Surgeons, nomination to the Who’s Who list of the 1000 most influential scientists of the 21st century, the Lister Award in Surgical Research, the Leon Wiltse Award from the North American Spine Society for excellence in leadership and/or clinical research in spine care, the Reeve-Irvine Research Medal in SCI, and the Golden Axon Leadership Award. In 2013, Dr. Fehlings was honoured with the Queen Elizabeth II Diamond Jubilee Medal presented to him by the Honourable Stephen Harper. In 2014, Dr. Fehlings was elected to the Fellowship of the Royal Society of Canada and to the Canadian Academy of Health Sciences. Dr. Fehlings is active in many medical societies and journal editorial boards including Journal of Neurosurgery: Spine (Past-Chairman Editorial Board), Journal of Neurotrauma (Editor, Special Topics), Neurosurgery (Associate Editor) and Spine where he holds the position of Deputy Editor.

***Beverly Craven, BA, MD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Beverley Catharine Craven   
Associate Professor   
  
1. EDUCATION   
Degrees   
2003 - 2007 MSc, Clinical Epidemiology, HPME, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): GA Hawker   
1994 - 1998 FRCP(C), Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1991 - 1994 MD, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1984 - 1989 BA, Specialized Honours Physical Education, Kinesiology and Health Science, York University, Toronto, Ontario, Canada   
Postgraduate, Research and Specialty Training   
1998 - 1999 Clinical Scholar, Physiatry, Spinal Cord Injury Rehabilitation, Dept of Medicine, University of Toronto, Toronto Rehabilitation Institute, Toronto, Ontario, Canada, Supervisor(s): Dr CF McGillivray (University of Toronto) & Dr JD Adachi (McMaster University)   
1994 - 1998 Resident, Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada, Supervisor(s): Dr. M. Bayley & Dr. D. Harvey   
Qualifications, Certifications and Licenses   
2008 - present BCLS/AED Certification, Toronto, Ontario, Canada   
1991 - present CCD® Certified Clinical Densitometrist, International Society of Clinical Densitometry, United States, License / Membership #: 11-06-99-0-26   
2015 Jul Protecting Human Research Participants Certificate, NIH Office of Extramural Research, United States, License / Membership #: 1794948   
2014 Jul - 2015 Jun Medi Maps Group, Montreal, Quebec, Canada   
1998 Fellow of the Royal College of Physicians and Surgeons of Canada, Physical Medicine & Rehabilitation, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 068244   
1996 Licentiate of the Medical Council of Canada (LMCC Part II), Medical Council of Canada, Ontario, Canada, License / Membership #: 79173   
1994 Licentiate of the Medical Council of Canada (LMCC Part I), Medical Council of Canada, Canada   
1989 Advanced Coaching Certificate, York University, Toronto, Ontario, Canada   
1988 Fitness Assessment & Exercise Counseling Certificate, York University, Toronto, Ontario, Canada   
2. EMPLOYMENT   
Current Appointments   
2016 - present Adjunct Associate Professor, Department of Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2016 - present Associate Graduate Faculty Member, Rehabilitation Sciences Institute, University of Toronto, Toronto, Ontario, Canada   
2016 - present Professor, Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
Cross Appointment and SGS Associate Member with the Institute   
2015 Apr - present Senior Scientist, Neural Engineering and Therapeutics Team. Neural Engineering and Therapeutics Team, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Division of Physical Medicine and Rehab, Medicine, University of Toronto, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Physical Medicine and Rehabilitation, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada   
2014 - present Medical Lead, Spinal Cord Rehabilitation Program, Physical Medicine and Rehabilitation, UHN -Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
The Physician Leader, Spinal Cord Rehabilitation Service will provide medical leadership in the interest of quality care, education, research and advocacy. The Lead Physician will provide advice and guidance to support optimal operational and strategic performance.   
2011 - present Adjunct Assistant Professor, Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2011 - present Active Medical Staff, Dept of Physical Medicine & Rehabilitation, University Health Network, Toronto, Ontario, Canada   
2011 - present Physiatrist, Brain & Spinal Cord Rehabilitation Program, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2010 - present Associate Member, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada   
Previous Appointments   
HOSPITAL   
2000 - 2012 Manager, Bone Density Lab, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
RESEARCH   
2007 - 2015 Mar Scientist, Neural Engineering and Therapeutics Team. Toronto Rehabilitation Institute, Spinal Cord Rehabilitation Program, Toronto, Ontario, Canada   
UNIVERSITY - CROSS APPOINTMENT   
2010 - 2014 Jun Assistant Professor, Institute of Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
UNIVERSITY - RANK   
2007 - 2014 Assistant Professor, Division of Physiatry, Medicine, University of Toronto, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
NATIONAL   
Received   
  
2014 Oct Education Category Award Winner: 2nd Place, Presenter, 6th National SCI Conference, Toronto, Ontario, Canada. (Distinction)   
Title: Moving from the E-scan Atlas to Action: Development of a SCI Rehabilitation Manifesto   
Authors: Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D.   
Description: Certificate of achievement and opportunity to do a podium presentation at the conference.   
2014 Jun Original Research Contest Award Winner: 3rd Place, CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada. (Research Award, Specialty: PM&R)   
Title: Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies?   
Authors: Craven BC, Zeng L, Farahani F, Hitzig SL.   
  
LOCAL   
Received   
  
2014 May Division of Physiatry Achievement Award 2013, Division of Physiatry, Department of Medicine, University of Toronto, Toronto, ON, Canada. (Distinction)   
Description: This award is given to an individual staff member in the Division of Physiatry for exceptional service towards the development and growth of the Division of Physiatry at the University of Toronto. I was the inaugural award recipient.   
  
Nominated   
  
2017 Jun DoM Eaton Scholar Researcher of the Year, University of Toronto-Wightman-Berris Academy, Toronto, Ontario, Canada. (Research Award)   
The Eaton Scholar Researcher of the Year, which recognizes a member of the Department of Medicine who has demonstrated sustained excellence as a scientist and role model over several years (7 years or more with the DoM).   
  
Teaching and Education Awards   
LOCAL   
Received   
  
2016 May Clinician Award and Leader Award, UHN: Toronto Rehabilitation Institute, Toronto, Ontario, Canada. (Postgraduate)   
The award is for Contribution to Student and Professional Education at Toronto Rehab.   
  
Student/Trainee Awards   
INTERNATIONAL   
Received   
  
2013 Nov Poster Competition Award Winner, Fourth Place, PM&R, Faculty Research Supervisor, Awardee Name: Dance, DL. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
2012 May WMS Fellowship Award, Awardee Name: A. Mayo. World Muscle Society, Perth, Australia   
Travel award. Total Amount: 500 EUR   
2011 Dec - 2013 Dec Postdoctoral Fellowship Award, Awardee Name: Masae Miyatani. Craig H. Neilsen Foundation, Encino, California, United States   
Postdoctoral Fellowship Salary Support & Small Operating Fund. Total Amount: 135,000 USD   
  
NATIONAL   
Received   
  
2014 Jun Resident Research Award Winner: 3rd Place, PM&R, Resident Research Supervisor, Awardee Name: Fortin C. CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada   
Title: Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It?   
Authors: Fortin C, Voth J, Jaglal S, Craven BC.   
2012 Jan - 2014 Jan Canadian Urologic Association Scholarship Fund Award, Awardee Name: Blayne Welk. Canadian Urologic Association, London, Ontario, Canada   
2011 Jul - 2013 Jun Postdoctoral Fellowship Award, Awardee Name: Sander L. Hitzig. Ontario Neurotrauma Foundation (ONF) & Rick Hansen Institute (RHI), Toronto, Ontario, Canada   
Salary Support for Mentee, Capacity Building Award. Total Amount: 130,000 CAD   
  
LOCAL   
Received   
  
2013 Nov Abstract Competition Senior Resident Award Winner, First Place, Faculty Research Supervisor, Awardee Name: Dance, DL. PM&R Resident Research Day 2013, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 - present Ad-Hoc Member, Pharmacy and Therapeutics Committee, UHN, Toronto Rehabilitation Institute   
2014 Dec - present Member, Scientific Advisory Committee, Osteoporosis Canada   
2011 - present Member, Advisory Committee, Ontario Spinal Cord Injury Research Network   
2010 - present Member, Academy of Spinal Cord Injury Professionals (ASCIP), 20-0000321   
2010 - present Member, International Spinal Cord Society (ISCOS)   
2007 - present Member, Paralyzed Veterans Of America (PVA)   
2002 - present Member, American Spinal Injury Association (ASIA)   
2002 - present Member, International Society of Clinical Densitometry (ISCD), 131846   
2001 - present Member, American Society of Bone and Mineral Research (ASBMR), 104003   
1999 - present Member, Ontario Medical Association (OMA), 0660837   
1998 - present Member, Canadian Association of Physical Medicine and Rehabilitation (CAPMR), 520797   
1994 - present Associate Member, Association of Academic Physiatrists (AAP), 20392   
1994 - present Member, Canadian Medical Association (CMA), 104675   
1994 - present Member, Canadian Medical Protective Association (CMPA), 987589   
1994 - present Member, College of Physicians and Surgeons of Ontario (CPSO), 068244   
2012 - 2016 Member, American Congress of Rehabilitation Medicine, 11837-1   
  
Administrative Activities   
INTERNATIONAL   
American Congress of Rehabilitation Medicine (ACRM)   
2013 - 2014 Member, Pre-Course Planning Committee, 91st Annual Meeting, October 2014, Toronto, Ontario, Canada.   
  
International Spinal Cord Society (ISCoS)   
2014 Dec 20 International SCI Fracture History Extended Data Set Working Group   
2014 Dec 13 International SCI Endocrine and Metabolic Extended Data Set Working Group   
  
NeuroRecovery Network   
2013 Apr - 2014 May Member, Health Committee, Louisville, Kentucky, United States.   
  
Wings For Life   
2014 Jul 1 - present Member, SCI Clinical Trials Toolbox (SCITT) International Working Group, Faculty Development   
The goal of the clinical trials implementation group: it to convene a group with hands-on experience in SCI trials to produce SCITT (guideline recommendations and a tool box for SCI clinical trials (IST/IIT). Working Group Members include Cathy Craven, Armin Curt, Jane Hsieh, Linda Jones, Suhkvinder Kalsi-Ryan; Steve Kirshblum, and Allan Levi (AL).   
  
NATIONAL   
Allergan Medical Affairs   
2013 Sep 7 Member, Multi-Indication Advisory Board, Toronto, Ontario, Canada.   
  
Canadian Association of Physical Medicine & Rehabilitation (CAPMR)   
2016 Jul 1 - 2017 May 31 Member, 65th Annual Meeting Planning Committee, Faculty of Medicine, Dept of Medicine, Toronto, Ontario, Canada.   
Planning of the May 25, 2017 9:00am to 12:00pm Fat, Muscle, Bone and Exercise.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, St. John’s, Newfoundland and Labrador, Canada.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, Vancouver, British Columbia, Canada.   
2012 Jul - 2016 Jun Chair, Research Committee, Canada.   
As Chair of the Research Committee for CAPMR 61st-64th Annual Meetings, my duties include scientific program development, vetting of abstract submissions, creation of paper, abstract and poster award criteria, facilitating a fair national adjudication process and distribution of awards. In addition, the Research Chair sits on the editorial board of International Journal of Physical Medicine & Rehabilitation, ensures the annual meeting products are suitable and in the correct format for publication in the journal and provides commentary and journal input as appropriate.   
2010 - 2012 Member, Scientific Planning Committee, CAPMR 60th Annual Meeting, Toronto, Ontario, Canada.   
2009 - 2012 Member, Research Committee, Canada.   
  
Osteoporosis Canada   
2016 Sep 16 - 2018 Sep Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
OC SAC Research Committee.   
2014 Dec 1 - 2016 Dec 1 Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
Scientific Advisory Committee.   
  
Rick Hansen Institute   
2016 Nov - present Sub-Committee Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
Decision Support Working Group.   
2015 Aug - present Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
2013 Aug - present Member, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
The purpose of the Care Advisory Committee is to identify gaps in knowledge regarding SCI clinical management that are needed to advance the field and to implement existing evidence into practice. The Advisory Committee will make recommendations and assist in the development of an RHI Care Program that will fill gaps in clinical knowledge and promote best practices to optimize and standardize care delivery for Canadians who are newly injured as well as those living with an existing SCI. The recommendations of the committee will align with the vision and mission of RHI and as outlined in the 2013-2018 Business Plan.   
2008 - present Member, Rick Hansen Spinal Cord Injury Registry (RHSCIR) Scientific and Executive Committee, Canada.   
2015 Dec - 2016 Apr Member, Planning Advisory Committee PRAXIS Meeting, Vancouver, British Columbia, Canada.   
The purpose of the Planing Advisory Committee is to develop a novel conference agenda that advances the field of spinal cord injury and addresses the Valley 1 and Valley 2 gaps in the field.   
2009 - 2012 Site Investigator, Rick Hansen Spinal Cord Injury Registry (RHSCIR), Canada.   
  
Toronto Rehabilitation Institute   
2010 - 2012 Co-Chair, 5th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
  
UHN - Toronto Rehabilitation Institute   
2015 - 2017 Co-Chair, 7th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
2012 - 2014 Co-Chair, 6th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr 24 - 2016 Apr 25 Member, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
2016 Apr 24 - 2016 Apr 25 Co-Chair, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
  
PROVINCIAL / REGIONAL   
Integration of Health Services and Supports (Self-Management, Primary Care, Rehabilitation) in Persons with Spinal Cord Injury (PRISM Project)   
2012 - 2015 Member, Steering Committee, Ontario, Canada.   
Steering Committee.   
  
Ontario Spinal Cord Injury Research Network (OSCIRN)   
2011 - present Member, Advisory Committee, Toronto, Ontario, Canada.   
Scientific Advisory Boards.   
  
LOCAL   
Division of Physical Medicine and Rehabilitation   
2015 Feb 3 Member, CMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Postgraduate MD, Toronto, Ontario, Canada.   
7 hours of applicant reviews   
12 hour interview and selection process.   
2015 Jan 27 Member, IMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
6 hours CV review   
5 hours interview and selection process.   
  
Toronto Rehabilitation Institute   
2011 - 2014 May Executive Committee, TRIMSAFPA, Toronto, Ontario, Canada.   
2011 - 2012 Executive Committee, Toronto Rehabilitation Institute Rehab Medicine Associates (TRIRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
  
UHN - Toronto Rehabilitation Institute   
2015 Apr 1 - present Director, Central Recruitment Implementation Toronto Rehabilitation Institute, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
I am responsible for clinical, administrative and financial oversight of implementation of Central Recruitment(CR) and a revitalized Research Volunteer Pool (RVP. The outcomes of this project have clinical and research accountability on our corporate score card. Aim: 100% of Toronto Rehab Inpatients are approached regarding research participation by a patient research liason, the number of trials which fail due to inadequate accrural is reduced, a new revistalized RVP is implemented with migration of existing databases in to the RVP.   
2014 Jul 1 - present Medical Lead, Brain and Spinal Cord Rehabilitation Program, Lyndhurst Centre, Toronto, Ontario, Canada.   
2013 - present Executive Committee, University Health Network Rehab Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend 8 monthly meetings of the Executive Committee and 4 meetings of UHNRMA per year. Activities include: developing an internal accountability framework, and participating in annual internal review of members’ academic productivity, developing and ensuring adherence to projected budget and related practice plan business activities.   
2015 Jan - 2015 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2014 Nov - 2014 Dec Chair, Innovation Fund Internal Review Process, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
2014 Jan - 2014 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Nov - 2015 Jun Executive Committee Member, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
2013 Jan - 2013 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan - 2012 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
UHN -Toronto Rehabilitation Institute   
2015 Feb 20 Member, Affiliate Scientist Appointment Committee, Toronto, Ontario, Canada.   
Meeting Preparation and attendance.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr Invited Attendee, The Wearable Cameras Stakeholder Committee Meeting, Toronto, Ontario, Canada.   
  
UHN-Toronto Rehabilitation Institute   
2017 Aug 16 - present Ad-Hoc Member, TRI P&T Subcommittee, Toronto, Ontario, Canada.   
2016 Apr 1 - 2018 Mar 31 Director, Central Recruitment and Research Volunteer Pool, Toronto, Ontario, Canada.   
2015 Feb 23 - 2015 Feb 24 Member, Spinal Cord Rehab Program, Value Stream Mapping (VSM), Toronto, Ontario, Canada.   
Meeting attendance.   
2013 - 2014 Member, NET Team Scientist Search Committee, Department of Physical Therapy, Toronto, Ontario, Canada.   
  
University Health Network Rehab Medicine Associates (UHNRMA)   
2014 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
University of Toronto   
2016 Jun - present Member, Division Research Leads Committee, Department of Medicine, Toronto, Ontario, Canada.   
Quarterly Meetings of the Committee. The Committee aims to aid in the implementation of the Department of Medicine Research Strategic Plan.   
2016 - present Chair, PM&R Division Research Committee, Toronto, Ontario, Canada.   
Develop research matrix. Promote research collaboration across the division, revise research day format and develop mechanisms within the department of medicine to communicate research success.   
2015 Sep - present Member, Division of PM&R Executive Committee, Department of Medicine, Toronto, Ontario, Canada.   
This is an Advisory Committee to the Division Chief and assist with the Strategic Plan Implementation.   
2006 - present Member, Gender Issues Committee, Department of Medicine, Toronto, Ontario, Canada.   
Attend quarterly meetings and events.   
2016 Jun 24 Contributor, Division of PM&R Mini Retreat, Toronto, Ontario, Canada.   
Research Committee strategic plan update.   
2015 Feb - 2015 Oct Member, Strategic Planning Oversight Committee, UofT Division of PM&R, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Faculty Development, Toronto, Ontario, Canada.   
Co-Chair of the Research pillar of the strategic planning process.   
2013 Oct - 2013 Dec Member, DDD Physiatry Search Committee, Department of Medicine, Toronto, Ontario, Canada.   
2013 Apr 13 Contributor, External Review, Division of Physiatry, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
2012 - 2015 Research Portfolio Lead, Executive Steering Committee, Division of Physiatry, Toronto, Ontario, Canada.   
Participate in monthly meetings of the Executive, 6-8 months per year, participate in planning retreats and educational interventions, and assume responsibility of the research portfolio as outlined in our Division’s strategic plan.   
Quarterly Newsletter Contributions: 30.   
2005 - 2013 Member, Grand Rounds Planning Committee, Division of Physiatry, Toronto, Ontario, Canada.   
  
Peer Review Activities   
EDITORIAL BOARDS   
Member   
2012 Oct - present International Journal of Rehabilitation Medicine   
  
MANUSCRIPT REVIEWS   
Reviewer   
2016 Sep 20 - 2016 Nov 30 BMJ Open-2016-014331, Number of Reviews: 1   
Ad Hoc Journal Reviewer   
2013 - present International Spinal Cord Society, Neurorehabilitation & Neural Repair, Number of Reviews: 1   
2012 Jan - present Osteoporosis International, Number of Reviews: 3   
2010 Nov 18 - present Disability and Rehabilitation, Number of Reviews: 4   
2005 - present American Academy of Physical Medicine and Rehabilitation, Archives of Physical Medicine and Rehabilitation, Number of Reviews: 5   
2005 - present Unites States Department of Veterans Affairs, Journal Of Rehabilitation Research and Development, Number of Reviews: 3   
2004 - present American Society of Spinal Cord Injury Professionals, Journal of Spinal Cord Medicine, Number of Reviews: 23   
2004 - present International Spinal Cord Society, Spinal Cord, Number of Reviews: 6   
2016 Jan 11 Clinical and Investigative Medicine, Number of Reviews: 1   
2015 Dec Spinal Cord, Spinal Cord, Number of Reviews: 1   
Editor, Author, Reviewer   
2013 Mar - 2014 Sep Journal of Spinal Cord Medicine, Number of Reviews: 6   
  
PRESENTATION REVIEWS   
Research Day Adjudicator   
2012 Nov 16 University of Toronto, Division of Physiatry, Resident Research Day, Toronto, ON. Number of Reviews: 14   
  
ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Adjudicator   
2013 Mar - 2013 May Canadian Association of Physical Medicine & Rehabilitation, 61st Annual Scientific Meeting, Montreal, QC. Number of Reviews: 58   
2012 Mar - 2012 Jun Canadian Association of Physical Medicine & Rehabilitation, 60th Annual Scientific Meeting, Toronto, ON. Number of Reviews: 46   
  
ANNUAL REVIEW OF ALL TRI SCIENTISTS   
Reviewer   
2017 Feb 10 UHN-Toronto Rehabilitation Institute, Number of Reviews: 15   
  
CIHR PILOT SCHEME   
Internal Grant Reviewer   
2016 Mar 30 UHN: Toronto Rehabilitation Institute, Formulation of a Reliable Clinical Decision Role for the diagnosis of myofascial pain syndrome, Number of Reviews: 1   
  
EXTERNAL REVIEW   
Member   
2014 Jan - 2015 May Funded by Ontario Neurotrauma Foundation & Rick Hansen Institute, Canadian Best Practice Guidelines for the Treatment of Neuropathic Pain after Spinal Cord Injury   
  
INTERNAL ICORD ENDOWED CHAIRS REVIEW   
Reviewer   
2017 Apr 6 UHN-Toronto Rehabilitation Institute, ICORD - Co Reviewers:   
Rob Brownstone, Suzie Charlifeu, Armin Curt, James Fawcett, Ruediger Rupp, Number of Reviews: 5   
  
INTERNAL SCIENTIFIC REVIEW   
Reviewer   
2016 Oct 31 UHN-Toronto Rehabilitation Institute, Avril Mansfield, Number of Reviews: 1   
  
INTERNAL SCIENTIST REVIEW   
Reviewer   
2016 Aug 17 - 2016 Dec 31 UHN-Toronto Rehabilitation Institute, Number of Reviews: 3   
2016 Jan - 2016 Dec Toronto Rehab Research Institute, Number of Reviews: 2   
  
RESPONSIBLE FOR ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Research Committee Chair   
2014 Mar - 2014 May Canadian Association of Physical Medicine & Rehabilitation, 62nd Annual Scientific Meeting, St.John’s, Newfoundland.   
  
Reviewed 55 abstracts; 12 removed; 3 papers. Adjudication process oversight- 25 hours. Vetting of conference materials- 8 hours. Number of Reviews: 58   
Research Committee Chair   
2015 Jan 15 - 2015 Feb 20 Canadian Association of Physical Medicine & Rehabilitation, 63rd Annual Scientific Meeting, Vancouver BC   
  
Reviewed 90 abstracts; 11 papers of the year submissions, Number of Reviews: 90   
  
WORKSHOP REVIEW COMMITTEE   
Reviewer   
2014 Feb 22 6th National SCI Conference, 6th Annual SCI Conference, Toronto, ON, Number of Reviews: 13   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2016 May 11 External Stakeholder Advisory Committee. A wearable sensor for monitoring hand function at home.   
Four external stakeholder committee meetings to advise the investigators (Dr. Zariffa) over an 18-month time period.   
  
CHAIR   
2015 May 23 Scientific Commitee. 2015 63rd Annual CAPMR Scientific Award Session. CAPMR, Vancouver, British Columbia, Canada.   
  
CONSENSUS MEETING   
2016 Oct 5 - 2016 Oct 6 Co-Leader. ONF REPAR RIISC Consensus Meeting. Ontario Neurotrauma Foundation-REPAR, Toronto, Ontario, Canada. Supervisor(s): Craven BC, Gagnon D.   
Aim to reduce identifiable and modifiable precursors to fracture, diabetes and heart disease and the related handicap with innovative community-based rehabilitation solutions through collaboration with community partners & patient representatives.   
A 3-year plan containing research goals, team infrastructure, financial accountability was developed.   
  
INTERNATIONAL WORKING GROUP   
2016 Sep - 2018 Apr Member. Spinal Cord Injury Trial Toolkit (SCITT Working Group). Wings For Life. Supervisor(s): Jane Hsieh. Collaborator(s): Jones L, Curt A, Kalsi-Ryan S, Steeves J, Levia A.   
The mission or vision of this group is to develop the following five concept documents:   
1. Clinical Trial Matcher   
2. Website Functionality Map   
3. Clinical Trial Curatorial Criteria List   
4. SCI Clinical Trial Expert Site Qualification Criteria   
5. Patient Self-Report Classificator.   
  
INVITED MEETING   
2016 Nov 23 Attendee. Primary Care Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Joseph Lee and Jamie Milligan. Collaborator(s): 92 meeting attendees including our Deputy and Minister of Health and Health Systems and Health Policy Leaders as well as Spinal Cord Injury Stakeholders.   
1.To direct research, education and innovation in primary and community care for SCI consumers from multiple stakeholders’ perspectives   
To shape the direction and implementation of policy and SCI consumer care   
To further develop a community of practice and learning collaborative to advance primary and community care for SCI consumers.   
2016 Nov 11 Attendee. Canadian Spinal Cord Injury Urohealth Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Blayne Welk. Collaborator(s): 19 meeting attendees at this full day meeting of whom 16 were Urologists and 3 were specialists in Physical Medicine and Rehabilitation.   
1. Review the current Canadian landscape in terms of SCI bladder care and available resources.   
2. Review and discuss standards of care and treatment options for SCI related bladder dysfunction.   
3. Establish guiding principles for CUA neurogenic bladder guidelines (primarily focused on bladder health maintenance and treatment modalities)   
4. Establish potential urohealth indicators for the national SCI-HIGH program (developed through the Rick Hansen Institute)   
5. Determine if there are achievable research goals in the field of spinal cord injury urohealth that should be cooperatively pursued by Canadian researchers.   
2016 Nov 4 Attendee. Spinal Cord Injury Pain Summit. Ontario Neurotrauma Foundation, Toronto, Ontario, Canada.   
2016 Nov 4 Attendee. Neuropathic Pain Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Eldon Loh.   
2016 Nov 1 Attendee. Research Executive Committee Meeting. UHN-Toronto Rehab, Toronto, Ontario, Canada.   
2015 Oct 24 Attendee. RHI Network Meeting. Rick Hansen Institute, Toronto, Ontario, Canada.   
Network meeting to inform the 2016-2023 strategic plan.   
  
INVITED MEETING INTERNATIONAL   
2015 May 17 Invitee. ISCRR/ONF/RHI SCI and Community Care Meeting. Montreal, Quebec, Canada. Collaborator(s): J. Lee, J. Milligan, A.Burns, P. Athanasopoulos.   
To initiate a discussion on the challenges, research gaps an strategies to improve SCI care in the community. The meeting workshop will identify opportunities for partnership and a series of next steps to advance the primary care clinical and research agenda.   
  
INVITED MODERATOR   
2015 May 15 Moderator. Clinical Trials and Clinical Practice Papers. Montreal, Quebec, Canada.   
Moderator of 1.5 hour session with 6 presentations.   
  
MEMBER   
2016 Sep - 2017 Jan Research Committee Chair. 65th Annual CAPMR Scientific Meeting. CAPMR, Niagara Falls, Ontario, Canada.   
Recruit keynote speaker and establish an agenda for a hall day of conference content related to understanding and managing Endocrine Metabolic Disease Risk.   
  
NATIONAL CONSENSUS MEETING   
2015 Oct 24 - 2015 Oct 25 Co-Chair. Prioritization of Spinal Cord Injury Rehabilitation Domains using the Hanlon Method. Toronto, Ontario, Canada. Collaborator(s): Hitzig SL, Flett H, Farahani F, Alavinia M.   
National Consensus meeting to establish a comprehensive framework of structure, process and outcome indicators intended to improve SCI Rehabilitation standards in Canada by 2020. 22 representatives from relevant stakeholder organizations were invited to participate in ranking and validating rehabilitation domains.   
  
NETWORK MEETING   
2017 May 12 - 2017 May 14 Attendee. Combined Canadian Spinal Cord & Ontario Spinal Cord Injury Research Network Meeting: Regeneration, Rehabilitation & Reintegration. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada.   
This meeting aims to drive knowledge translation through strengthening the ties between clinical based science and consumer interest.   
  
POLITICAL ADVOCACY   
2015 Aug 6 Invited Reviewer. Technical Review of draft proposed automobile insurance regulations. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Best S.   
A 3 hour consultation regarding the CAT definitions and the proposal to combine attendant services and medical rehab into one benefit.   
2015 Jun 11 Invited Speaker. Ontario SCI Solutions Alliance Presentation to the Ministry regarding Auto Insurance Reforms. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P.   
An overview of the incidence and prevalence of traumatic spinal cord injury and the associated medical and economic burden were presented.   
Health care utilization and rehab resources were costed in order to highlight that the proposed changes to Bill 91’s universal funding threshold is insufficient to cover the lifetime cost of care for patients with traumatic spinal cord injury and that the proposed changes to Bill 91 are not based on current cost of care and do not support the most vulnerable patients with complex needs. Further the proposed cuts to benefits for those with traumatic spinal cord injury will not reduce the insurance premium burden across the province. A request for the SCI Solutions Alliance to assemble a panel of experts to support the Ministry of Finance was tabled.   
2015 May 20 Author. Ontario SCI Solutions Alliance. Ministry of Health, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Tator C, Burns A, McGillivray CF, Yap A, Adair B, Bassett-Spiers K.   
Provision of Expert content or inclusion in a letter of advocacy regarding the financial services commission of Ontario.   
  
SCI SYMPOSIUM   
2017 Apr 6 - 2017 Apr 7 Invited Attendee. SCI Symposium in Honour of the Retirement of Founding Director, Dr. John Steeves. ICORD, Vancouver, British Columbia, Canada.   
  
STRATEGIC PLANNING SESSION   
2017 Apr 5 Invited Attendee. SCITT-STUDI Joint Strategic Meeting. Wings For Life, Vancouver, British Columbia, Canada.   
  
C. Academic Profile   
1. TEACHING PHILOSOPHY   
My teaching philosophy is predicated upon the assumption that learners are curious, and that learning is a process similar to starting a campfire that in a safe and enthusiastic environment, with appropriate resources, a student’s inquisitive nature will ignite the fire, and that their enthusiasm and perceived safety will stoke the fire and advance learning over time, as the fire burns.   
  
Throughout my interactions with learners I try to convey and engender a learner’s enthusiasm for a topic, while creating a safe environment in which there are no dumb questions, and a learner can take away as much as they are prepared to digest at any one time. When teaching I try to:   
  
a) Provide objectives or articulate an agenda for each presentation or learner interaction   
b) Provide a “real world” perspective on clinical practice, it’s nuance and pitfalls   
c) Emphasize the value of academic scholarship with concrete examples and use of referenced works   
d) Discuss common and serious ethical dilemmas   
e) Provide learners with key take home messages, preferably ones that are actionable   
f) Drive future inquiry beyond the days presentation, by providing an audit trail of additional resources and mechanisms for future or ongoing dialogue on an issue through blogs, learning groups, subsequent discussions etc.   
  
As an instructor in a formal teaching environment, I try to implicitly communicate my expectations of the learners through passion for continuous inquiry, advance preparation of materials, arriving and starting on time, dressing appropriately for the setting, and responding to feedback regarding timing, content and format of my teaching/presentations. I willing provide superior or remedial support for individuals who are engaged and making a concerted effort to integrate knowledge into their learning. I also facilitate advance preparation and rehearsal for presentations in public forums.   
  
The bulk of my teaching efforts are large group continuing education events with an inter professional audience, interactive workshops for an inter professional audience of regulated health care professionals with expertise in rehabilitation or 1:1 teaching of postgraduate MD or Postdoctoral fellows interested in rehabilitation science. One of the greatest joys in my day to day activities is to engage in “academic banter” with graduate students and post doctoral fellows, and to witness the transformation in their thinking processes and communication of their thinking over the course of their training. I derive great personal satisfaction from seeing learners succeed and carry on espousing enthusiasm for advancing the field after they have left my teaching environment.   
  
2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT   
This CPA dossier was developed to support my promotion to Associate Professor based on Creative Professional Activity with an emphasis on Exemplary Professional Practice. Physiatry is the medical specialty uniquely focused on “function and recovery” following disability. My interests and expertise are in optimizing function, facilitating recovery and reducing morbidity after spinal cord injury (SCI). SCI results in diverse, often devastating motor, sensory and autonomic impairments including: absence or limitations in one’s involuntary ability to breathe, regulate blood pressure and temperature, and voluntary ability to dress, bathe, toilet, eat, or move about one’s home or community. These impairments have lifelong catastrophic implications for the survivor, their long-term health and quality life. My passions for applied physiology, care of the “whole person” with SCI, and belief in the value and effectiveness of interprofessional care have influenced my career directions, and choice of creative professional activities.   
  
I was appointed as Assistant Professor of Medicine in the Division of Physiatry in January of 2007. In Canada, there are fewer than 15 Physiatrists with Clinician Scientist role profiles across our specialty (i.e., Stroke, MS, SCI, Brain Injury, etc). At the University of Toronto, I have had the opportunity to promote exemplary practices and lead the profession through: 1) sustained clinical and scholarly activities at Toronto Rehab, an internationally recognized premier rehabilitation centre, during a time in the field characterized by evolving science and technology; 2) development of new concepts and clinical practices related to sublesional osteoporosis (SLOP) and multimorbidity (MM) following SCI; 3) establishing myself as a nationally and internationally recognized expert in SLOP; and, 4) advancing future health service delivery through clinical and scientific leadership in the conception, design, and implementation of the 1st to 6th National SCI Conference (www.sciconference.ca) and publication of the first Atlas of Canadian SCI Rehabilitation.   
  
As Scientific Co-Chair, I have led the growth and expansion of the National SCI Conference from a small event to a highly sought after large event with international impact. The event now routinely attracts 400 attendees and international keynote speakers. Award winning papers and 100 accepted abstracts are now featured in a special issue of the Journal of Spinal Cord Medicine for which I am the issue editor. .   
  
At the time of appointment in 2007, my primary focus was on describing changes in lower extremity bone mass and bone quality after spinal cord injury. I later developed a clinical definition for SLOP to describe the rapid 30-50% decline in hip and knee region bone density in the first 18-24 months post injury and the resulting lower extremity fracture risk. My subsequent efforts aimed to help the field identify individuals with SCI, low bone mass, and high fracture risk who require therapy. This led to systematic reviews describing, and intervention studies determining, which therapeutic interventions are effective for treatment of those with SLOP fracture risk. Concurrent advances in bone physiology, the muscle-bone unit and Wnt signaling, lead to my conduct as Primary Investigator of intervention studies evaluating the efficacy of medical therapy (RCT - oral Risedronate), and rehabilitation therapies (proof of principle - standing and whole body vibration) for augmenting lower extremity bone mass and reducing risk of lower extremity fragility fracture.   
  
Over time, I have become fascinated by the related fates of bone, muscle and adipose tissue after SCI, and their roles in precipitating secondary health conditions. Secondary health conditions are defined as those conditions the individual develops as a direct consequence of SCI, or occurs at increased frequency among individuals with SCI, when compared to peers in the general population. These tissue changes include: declines in hip and knee region bone mass and bone quality; reductions in muscle cross-sectional area and alterations in fibre type (preponderance of Type IIb fibres); and, increases in abdominal, visceral and intramuscular fat. These events combine to directly or indirectly precipitate distal femur fracture, pressure sores, a proinflamamtory state, metabolic syndrome, and cardiovascular disease. My most recent primary and collaborative research has focused on preservation of tissue, and optimization of residual tissue function through application of medical, neurorecovery and neurorehabilitation strategies. Fractures, heart disease and pressure sores have become my “targets for cure”, as the links between changes in body composition and secondary health condition development have become apparent.   
  
There are 17,000 people living with SCI in Ontario, with 600 new traumatic injuries each year. My knowledge and expertise in applied clinical physiology, and prior training in epidemiology, has led to leadership opportunities, longitudinal cohort studies and publications describing the health and quality of life implications of multimorbidity among Ontarians living and aging with chronic SCI. I have co-led an inter-provincial working group of 28 clinicians and scientists from 11 member institutions in Ontario and Quebec entitled “SCI IMPACT” whose aim is to describe, characterize and ameliorate the health, economic and quality of life impacts of SCI for the individual, his/her family and the health system.   
  
Although survival and life expectancy after SCI have increased, most individuals 10 years post SCI report a mean of 7 concurrent secondary health conditions per year, with one in four hospitalized each year. The impact of SCI on the individual, his/her family, and the health system is greatest in terms of medical complexity, health care utilization and cost during the first two years after injury, and the ten years prior to death. SCI costs the Ontario government over $1.38 billion per year, with the direct mean costs of rehabilitation ranging between $112,000- $120,000 CDN per person (2003-2006). The clinical challenges associated with managing these complex SCI patients with MM in an ambulatory setting has enticed me to describe current health services, publish clinical care paradigms and advocate for the education and training of health care providers, as a means of prescribing change in the field. Orison Swett Marden suggests that “the opposition you have encountered and the courage with which you have maintained the struggle against overwhelming odds” is the best measure of one’s success. Using this framework, I have succeeded in promoting exemplary practice through design and dissemination of the E-scan Atlas (http://www.rickhanseninstitute.org/en/publications/escan)   
The E-Scan atlas content is intended to advance practice, guide program self evaluation, advocate for policy change, and articulate the future research agenda with the aim of transforming practice by 2020. The atlas is the culmination of six years of work, from the time of atlas conception, through acquisition of funding, building team infrastructure, collecting, validating and reporting results of the related scoping review of rehab service delivery nationally and building collaborative partners to synthesize and vet the data. The process necessitated collaboration with 46 co-authors, 86 collaborators and 15 tertiary SCI rehabilitation centres across the nation. Data analysis and atlas production required 15 hours per week of my time for a two year period to realize the final product. To date, 750 print copies and 460 CD versions have been distributed nationally and internationally. In addition, I recently received funding from the Ontario Neurotrauma Foundation to host a national consensus meeting to develop and disseminate a Manifesto containing strategies to reduce the incidence and severity of fractures, pressure sores and heart disease after SCI.   
  
Individuals with the MM of SCI, continue to challenge current thinking and single disease paradigms, which demand unique health system solutions, encompassing physiatric principles, and addressing SCI specific needs. In particular, the field’s ability to train and retain academic Physiatrists capable of facilitating practice change and meeting the service demands dictated by MM is of paramount importance. In the future, I plan to establish a highly sought after SCI clinical fellowship, continue to explore the therapeutic potential of interactions between muscle and bone for prevention and treatment of SLOP leadership of a multicentre intervention trial, and to explore the role of community rehab SWAT teams in reducing SCI related morbidity and hospitalization rates.   
  
Through creative professional activities, I have become a national leader in SCI rehabilitation practice, a recognized expert in SLOP and a strong proponent of academic Physiatry through conduct of ethical and scientifically sound practices, which are reflected in my publications; peer reviewed funding; external peer reviews; student mentorship; knowledge translation activities; administrative leadership; and national/international speaking engagements. Specifics related to these activities are outlined below under the following three themes:   
1. Diagnosis and Medical Rehabilitation of SLOP   
2. Delineating and Mitigating MM Among Individuals with Chronic SCI   
3. Analysis and Transformation of SCI Healthcare, Services and Systems.   
  
D. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2017 Apr - 2019 Mar Co-Investigator. Exploring the Impact of Falls on Life after Spinal Cord Injury. Craig H. Neilsen Foundation. Psychosocial Research Grants. PI: Musselman K. Collaborator(s): Oosman S, Yoshida K, Craven BC. 200,000 USD. [Grants]   
The goal of this project is to understand the causes and consequences of fear of falling and falls in individuals with SCI, as well as increase awareness about the related issues in order to develop an effective fall prevention intervention specific to the SCI population.   
  
2016 Oct Co-Investigator. Exploring the causes and consequences of falls across the continuum of care in Canadians with spinal cord injury. Canadian Institutes of Health Research (CIHR). PI: Musselman K. Collaborator(s): Craven BC, Yoshida K, Bostick G, Hitzig SL, Flett H, Scovil C, Jaglal S, Singh H, Kaiser A, Oosman S, Singh H. [Letter of Intent]   
  
2016 Sep - 2018 Aug Principal Investigator. Rosuvastatin for Reduction of Endocrine Metabolic Disease Risk. Craig H Neilsen Foundation. Neilsen Senior Research Grant. Collaborator(s): Nash M, Dallal K, andersen K, Giangregorio LM, Burns AS, Cheung A. 600,000 USD. [Grants]   
This was a Senior Scientist award for a multi-centre, phase I/II study evaluating the safety and efficacy of Rosuvastatin with CoQ-10 and standard dose calcium and vitamin D for augmenting bone mass and reducing inflammatory stress. This project aims to provide preliminary documentation of statin therapy efficacy and safety to inform the design and implementation of a future large-scale multi-centre, randomized, double-blinded treatment trial.   
  
2016 Jul - 2019 Jun Co-Investigator. Preventing Falls One Step at a Time: Reactive Balance Training for SCI. Ontario Neurotrauma Foundation (ONF). PI: Musselman K. Collaborator(s): Craven BC, Masani K, Mansfield A, Scovil C, Oates A, Lanovaz J. 149,866 CAD. [Letter of Intent]   
Falling is common among individuals with incomplete spinal cord injury (iSCI), with most falls occurring while walking. Falls result in injuries (e.g., broken bones), hospital readmission, and reduced participation in work and recreation. In able-bodied people, falls can be prevented by taking one or more rapid, reactive steps. People with iSCI, however, have difficulty taking the reactive steps needed to prevent a fall. Research in the elderly and people with stroke has shown that repetitive training of reactive steps in a safe environment improves this balance reaction and prevent falls. We will examine the feasibility and effectiveness of reactive step training in people with iSCI. This unconventional training may change current rehabilitation for iSCI, which presently has little emphasis on balance and fall prevention. By improving balance and reducing falls, people with iSCI will experience fewer complications (e.g., injuries), and greater recovery of function and community participation.   
  
2016 Apr - 2017 Apr Co-Investigator. Implementation Considerations for a SCI Caregiver Support Program. Craig H. Neilsen Foundation (The) (USA). Nielsen Pilot Psychosocial Research Grants. PI: Jaglal, Susan. Collaborator(s): Noonan V, Linassi G, Craven BC, Wolfe Dl, Cameron, J. 96,578 USD. [Grants]   
This study seeks to understand the various family caregiver roles and the skills needed to support individuals with spinal cord injury living in the community and to determine the challenges and type of assistance needed by caregivers when providing this care.   
  
2016 Apr - 2017 Mar Co-Investigator. Social Isolation and Loneliness on Health and Well being following post spinal cord injury. Craig H Neilsen Foundation. Neilsen Pilot Project. PI: Hitzig SL. Collaborator(s): Craven BC, Guilcher S, Bassett-Hunter R. 99,574.82 USD. [Grants]   
The purpose of this study is to better understand the role of social disconnectedness and perceived social isolation in influencing health and well-being in community-dwelling persons with spinal cord injury (SCI).   
  
2015 Nov - 2020 Nov Site Investigator. Physiological Flow of Liquids Used in Dysphagia Management. NIH. Motor Function, Speech and Rehabilitation Study Section. 2 RO! DCO11020-04. PI: Steele, Catriona Margaret. Collaborator(s): Craven BC, Burns AS. 2,576,130 USD. [Grants]   
Thickened liquids have become the most common intervention for dysphagia (swallowing impairment), yet we lack a clear understanding of how this intervention works to achieve clinical benefit. This study will provide information to guide clinicians in determining optimal levels of thickening to recommend for patients with dysphagia. This research is highly significant because it will establish a new foundation of understanding with respect to the influence of thickened liquids on swallowing. This is essential for advancing clinical practice and setting the stage for future treatment efficacy research.   
  
2015 Oct - 2016 Sep Principal Investigator. AusCan PHD Student. Ontario Neurotrauma Foundation (ONF). Mentor-Trainee Grant Agreement. 2015-RHI-ASPHD-1004. Collaborator(s): Gabison S. 23,500 CAD. [Grants]   
This is a mentor-mentee training grant.   
  
2015 Mar - 2018 Feb Co-Principal Investigator. Spinal Cord Injury (SCI) Care Indicators in Rehabilitation Project (SCI-HIGH). Rick Hansen Institute (RHI). G2015-33. PI: Craven BC & Bayley M. Collaborator(s): Flett H, Hitzig SL, Zee J. 275,000 CAD. [Grants]   
The purpose of this project is to develop rigorous methods to select, implement and evaluate care indicators. Toronto Rehabilitation Institute (TRI) scientists and clinicians will audit and develop a core set of care indicators in consultation with Canadian SCI rehabilitation experts/stakeholders and pilot these indicators for one year. The goal of this project is to set benchmarks and compare quality, safety, and efficiency of care across centres.   
  
2015 Mar - 2017 Mar Co-Investigator. Development of a Patient Reported Outcome for Bowel Dysfunction following Spinal Cord Injury. Rick Hansen Institute. Clinical Outcomes Measures Funding Competition. RHI #G2015-28. PI: Burns AS. Collaborator(s): Delparte JJ, Hitzig SL, Craven BC. 75,000 CAD. [Grants]   
Individuals with SCI and neurogenic bowel dysfunction (NBD) rate recovery of bowel function above walking as a priority for cure. The ramifications of NBD include impaired gastrointestinal motility, loss of continence, prolonged time to complete planned bowel evacuation, and a related loss of dignity. Current outcome measures fail to capture the full impact of the condition on affected individuals (e.g., employment recreation, inter-personal relationships, etc.). To address this need, a patient reported outcome (PRO) measure will be developed. The proposed PRO measure builds upon our prior qualitative studies which identified issues and challenges of living with NBD. The developed PRO measure will facilitate the future evaluation of clinical interventions intended to reduce the impact of NBD on individuals living with SCI.   
  
2015 Mar - 2015 Apr Co-Principal Investigator. Spinal Cord lnjury (SCl) Care lndicators in Rehabilitation Project. Rick Hansen Institute. Grant #2014-13. PI: Craven BC. Collaborator(s): Bayley M, Parsons D. 5,000 CAD. [Grants]   
Funding granted to facilitate production of a larger-scale proposal entitled SCI-HIGH. The project aims to align RHSCIR data elements, E-Scan data and SCI Accreditation Standards.   
  
2015 Jan - 2016 Mar Principal Investigator. Sustaining the feasibility and exploring the scalability of central recruitment strategies for patients with subacute and chronic spinal cord injuries. Ontario Neurotrauma Foundation (ONF)/Toronto Rehab Foundation. Capacity-Building Award in Spinal Cord Research. Collaborator(s): Brisbois L, Verrier MC. 37,660 CAD. [Grants]   
This project aims to explore the scalability of our inpatient central recruitment pilot study to include all of the peer review funded research at the Lyndhurst Centre.   
  
2014 Apr - 2017 Apr Co-Investigator. Bone fragility in boys with Duchenne muscular dystrophy. Physicians’ Services Incorporated (PSI) Foundation. PI: Ward, Leanne. Collaborator(s): Jaremko J, McAdam L, McMillan H, Craven BC, Ma J, Campbell P, Rudnicki M, Perkins TJ, Moher D, Rauch F, Shenouda N, Matzinger MA, Siminoski K. 170,000 CAD. [Grants]   
This prospective observational study aims to identify the incidence, prevalence and risk factors associated with spine and long bone fractures in children and young adults with Duchenne Muscular Dystrophy (DMD).   
  
2014 Jan - 2017 Dec Site Investigator. AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers. Ontario Neurotrauma Foundation (ONF). Directed Funding Initiative: VNI-ONF-Western Australia Colla. 634388. PI: Swaine J, Hayes K. Collaborator(s): Craven BC, Stacey M. 258,478.43 CAD. [Grants]   
Part A is a prospective cohort study that will identify risk factors associated with the development of a sitting acquired pressure ulcer (SAPU) or suspected deep tissue injury with acute and chronic SCI. Part B will identify and monitor individuals who develop a SAPU to measure health related quality of life impact and to quantify treatment costs. Subjects will be recruited from 10 sites – five state SCI units in Australia and five SCI rehab hospitals in Canada. We intend to recruit 480 subjects, 240 with acute SCI and 240 with chronic SCI (>10 years post injury). The budget shown is the local site budget.   
  
2013 Sep - 2013 Dec Principal Investigator. SCI Rehabilitation E-Scan: Moving from Blueprint to Action. Ontario Neurotrauma Foundation (ONF). Collaborator(s): Balioussis C, Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 55,000 CAD. [Grants]   
The purpose of the grant was to fund an initiative to ensure that the recommendations derived from the E-Scan Atlas were translated into actions effecting necessary change in SCI rehabilitation research, practice, and policy. The course of action decided upon by the E-Scan Investigative Team was to: (a) hold a consensus meeting with national and international experts. The aim of the meeting was to extend the dialogue regarding rehabilitation priorities in Canada that began with the E-Scan Atlas, and (b) create a SCI Rehabilitation “Manifesto” prescribing specific actions to bring about change in research, practice, and policy related to SCI rehabilitation.   
  
2013 Jan - 2014 Jul Research Project Supervisor. Exploring the Associations between Daily Blood Pressure Fluctuations and Cardiovascular Risk among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Physicians’ Services Incorporated (PSI) Foundation. PSI Resident Research Grant. R12-45. PI: Dance, Derry. Collaborator(s): Ditor D, Hassouna M, Craven BC. 20,000 CAD. [Grants]   
This pilot study will document the daily fluctuations in blood pressure during a Spinal Cord Injury (SCI) patient’s daily self-care activities using 24 hr mobile blood pressure monitors. In addition, we will measure aortic arterial stiffness, a correlate of cardiovascular disease, via ultrasound. The data obtained will be used to explore the associations between transient increases in blood pressure (how much, how often, and for how long) with arterial stiffness. We hypothesize that frequent and large (≥30mmHG) increases in systolic blood pressure) due to autonomic dysfunction after SCI contribute to the high rates of cardiovascular related morbidity and mortality after SCI. Future interventions to reduce how often and how much blood pressure fluctuates over time may reduce the frequency of heart attack and stroke among patients living with chronic SCI.   
  
2012 Sep - 2016 Dec Site Investigator for Project 1. Improving Cardiovascular Health for Canadians with Spinal Cord Injury: Effects of Exercise and Targeted Education (CHOICES). CIHR. PI: Krassioukov, Andrei. Collaborator(s): Bryan S, Craven BC, Ditor D, Eng J, Hicks A, Laher I, Lam T, MacDonald M, Martin Ginis K, Ramer M, Verrier M, Warburton D. 16,141.98 CAD. [Grants]   
This is a multi-centre, randomized, prospective clinical trial (www.clinicaltrials.gov, NCT01718977) involving three sites- Vancouver, Toronto, and Hamilton evaluating the efficacy of body weight supported treadmill training vs. arm ergometry for reducing cardiovascular risk. I am the lead investigator for the Toronto site for CHOICES and a member of the study’s steering committee. The local site budget for project I of this study is $305,373.37 CAD.   
  
2012 Aug - 2013 Feb Principal Investigator. E-Scan Finalization. Ontario Neurotrauma Foundation (ONF). 2012-RHI-E-SCAN-954. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 25,482.81 CAD. [Grants]   
The purpose of this grant was to complete the knowledge translation activities related to dissemination of the E-Scan Atlas and development of a knowledge translation plan.   
  
2012 Jan - 2016 Dec Co-Investigator. NRN Development Grant. Ontario Neurotrauma Foundation (ONF). ONF # 974. PI: Verrier MC. Collaborator(s): Craven BC, Flett H. 740,000 CAD. [Grants]   
Description: The NRN is a network of spinal cord injury (SCI) rehabilitation hospitals and tertiary providers in North America that support the implementation of specialized rehabilitation centres which provide standardized activity-based therapy interventions designed from scientific and clinical evidence. An intensive Locomotor Training (LT) program utilizing Body Weight Support Treadmill Training (BWSTT) and over ground therapy is provided to suitable candidates. The purpose of this study is to evaluate the feasibility of the NRN program at Toronto Rehabilitation Institute’s Lyndhurst Centre in an outpatient setting. Individuals with sub-acute incomplete SCI (AIS C and D) will be recruited from the inpatient pool at Lyndhurst Centre. This intervention aims to facilitate and augment the recovery of mobility, posture, standing, and walking, and ensure improvements in health and quality of life among individuals with SCI. Our site is the first NRN site outside of the United States.   
  
2012 - 2013 Principal Investigator. Increasing the Efficiency and Diagnostic Yield of Lower Extremity Bone Density Assessment Among Patients with Neurological Impairment: A Comparison of New and Existing Technology. Academic Health Sciences Centre (AHSC) Toronto Rehab. Alternative Funding Plan (AFP) Innovation Fund. Collaborator(s): Cheung A, Burns A, Mittmann N, Giangregorio L, Jaglal S. 56,200.1 CAD. [Grants]   
Lower extremity fractures among Ontarians with neurologic impairments such as spinal cord injury (SCI) and osteoporosis are common; resulting in delayed fracture healing, blood clots, pressure sores, and additional attendant care. Dual energy x-ray absorptiometry (DXA) is the current standard for detection of osteoporosis and lower extremity fracture risk stratification. We propose that tibia bone density assessment with a newer technology, peripheral quantitative computed tomography (pQCT), will provide better fracture prediction than DXA, while reducing patient burden and the staff resources required for scan acquisition. The efficiency and diagnostic yield of substituting DXA assessments of hip and knee region areal BMD with pQCT-based measurements of tibia volumetric BMD and bone geometry will be evaluated.   
  
2011 Sep - 2012 Co-Investigator. Management of Autonomic Dysfunction in Persons with Spinal Cord Injury. CIHR. Meetings, Planning & Dissemination: Knowledge Translation. PI: Krassioukov, Andrei. Collaborator(s): Craven BC, Ethans K, Wong S. 54,600 CAD. [Grants]   
  
2011 Jul - 2015 Sep Co-Principal Investigator. The SCI IMPACT Research Team. Ontario Neurotrauma Foundation (ONF). ONF- REPAR Partnership. 2011-ONF-REPAR2- 885. PI: Craven BC, Maltais DB. Collaborator(s): Burns A, Courtois F, Noreau L, Ditor D, Hitzig SL, Mittmann N, St-Germain D, Coté I. 120,000 CAD. [Grants]   
The terms of reference of the grant mandated identification of co-principal investigators (one per province) were appointed. The SCI-IMPACT team is the product of an Ontario Neurotrauma Foundation –Réseau Provincial de Recherche en Adaption-Réadaption (ONF-REPAR) funding initiative to promote inter-provincial collaboration. The goal of this partnership was to build capacity and a culture of research collaboration between SCI rehabilitation researchers in Ontario and Québec. The overall objective of the SCI-IMPACT team is to capture and address (prevent/treat) the health, psychosocial, and economic impact of secondary health complications of spinal cord injury (SCI) for individuals with SCI, their families, providers, and the health care system. This collaboration involves 28 clinicians and researchers across the two provinces. Funding to bring the group together has resulted in a broad inter-professional network of stakeholders keen to pursue collaborations based on a common focus.   
  
2011 Jul - 2013 Jun Principal Investigator. Assessing the Feasibility and Scalability of Central Recruitment Strategies for Patients with Subacute and Chronic SCI. Ontario Neurotrauma Foundation (ONF). Mentor Mentoree Grant Agreement. ONF 2011-SCI-Mentor-884. Collaborator(s): Verrier MC. 106,575 CAD. [Grants]   
Insufficient or delayed recruitment is a common barrier to clinical study implementation. Screening to recruitment ratios, for subacute spinal cord injury (SCI) patients are low. This initiative aims to streamline recruitment and consent processes for subacute SCI patients, thereby reducing patient burden and maximizing research participation. This is a demonstration project designed to assess feasibility and scalability of the central recruitment process at the Toronto Rehab’s Lyndhurst Centre, with the future aim of scaling the process for the province should it prove feasible.   
  
2011 Apr - 2012 Jan Principal Investigator. E-Scan: Data Analysis and SCI Rehab Atlas Creation. Rick Hansen Institute. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Raschid A, Noonan V, Cherban E. 45,000 CAD. [Grants]   
The goal of these project is to examine the landscape of spinal cord injury rehabilitation across Canada and describes the current state of practice and map the actions required to implement changes to standardize and transform practice by 2020.   
  
2010 Jun - 2012 Mar Co-Investigator. Burden of Bowel Dysfunction in Individuals with Spinal Cord Injury: A Preliminary Study of Resources, Costs and Quality of Life. Ontario Neurotrauma Foundation (ONF). 2009-SCI-BURDEN-807. PI: Mittmann N. Collaborator(s): Chan B, Craven BC. 206,624 CAD. [Grants]   
  
2010 May - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration and Passive Standing for Treatment of Lower Extremity Osteoporosis, Muscle Atrophy & Adiposity Among Men with Incomplete Spinal Cord Injury: Efficacy, Safety & Feasibility Assessments for a Phase III Clinical Trial. Ontario Neurotrauma Foundation (ONF). 2010-SCI-WAVE3-816. Collaborator(s): Bryant D, Giangregorio LM, Hitzig SL, Masani K, Miyatani M, Popovic MR, Sayenko D, You L. 241,408 CAD. [Grants]   
Whole body vibration (WBV) has been purported in the scientific literature to have a positive impact on bone mass, muscle strength and endurance, and body composition among able-bodied persons including postmenopausal women, elite athletes, and bariatric clients. This pilot study seeks to confirm the therapeutic potential of WBV on similar bone, body composition, and muscle parameters among men with paraplegia (SCI).   
  
2010 Mar - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration (WBV) and Passive Standing for Treatment of Sublesional Osteoporosis after Spinal Cord Injury Pilot Phase II: Safety & Efficacy Assessment. Rick Hansen Institute. Spinal Cord Injury Solutions Network. SCISN Ref # 2010-94S. 30,620 CAD. [Grants]   
  
2010 Feb - 2012 Mar Co-Investigator. Understanding the Factors that Shape the Neurogenic Bowel Experience Following Spinal Cord Injury: Identifying Important Themes from the Perspective of Stakeholders. Ontario Neurotrauma Foundation (ONF). ONF-2009-SCI-NEURBOW. PI: Burns AS, St-Germain D. Collaborator(s): Craven BC, Wolfe D, Hitzig SL, Connolly M. 235,989 CAD. [Grants]   
Grant #: ONF-2009-SCI-NEURBOW-802.   
  
2010 Jan - 2012 Dec Co-Investigator. Understanding the Links Between Postural Control and Mobility Activities. Craig H. Neilsen Foundation. 164422. PI: Nadeau S and Verrier MC. Collaborator(s): Craven BC. 249,003 CAD. [Grants]   
To map the recovery profile of posture in a heterogeneous sample of patients with subacute spinal cord injury in order to inform the development of future customized interventions to augment trunk recovery.   
  
2009 Aug - 2012 Jan Co-Investigator. Neuroprosthesis for Sitting for Individuals with Spinal Cord Injury. CIHR. MOP#97952 RNet 84680. PI: Popovic MR. Collaborator(s): Craven BC, Verrier M, Masani K. 156,382 CAD. [Grants]   
  
2008 - 2015 Mar Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. CIHR Operating Grant. CIHR-177-254. PI: Craven BC & Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, McCartney N, Thabane L, Popovic M. 85,477 CAD. [Grants]   
Individuals with spinal cord injury (SCI) experience dramatic losses of bone and muscle following the injury, predisposing them to an increased risk of fractures. Chronic changes in bone mineral density (BMD) in the SCI population are not well established. Furthermore, a substantial proportion of the osteoporosis research in SCI has incorporated small sample sizes, has excluded females or has been conducted exclusively in persons with motor complete lesions. Identifying whether bone quality continues to deteriorate, and predictors of poor bone quality may provide insight on who to target for intervention.   
The purpose of this study is to establish a pilot cohort of individuals with chronic SCI, including both genders and diverse levels of impairment. The cohort will also create the potential for future prospective longitudinal studies evaluating predictors of fracture in the SCI population, so that guidelines for identifying those at high risk of fracture can be developed.   
  
NON-PEER-REVIEWED GRANTS   
FUNDED   
2015 Oct - 2016 Sep Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network Grant. Rick Hansen Institute (RHI). SCI Solutions Network. Collaborator(s): Flett H, Musselman K, Furlan JC, Bayley M. 120,000 CAD. [Grants]   
These funds were awarded to maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute to maintain a registry site.   
  
2015 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Musselman K, Burns A, Flett H, Furlan JC. 60,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2014 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Verrier M, Burns A, Flett H. 180,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 Jun - 2014 Mar Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. Collaborator(s): Verrier M, Burns A, Flett H. 240,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 - 2015 Dec Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. Rick Hansen Institute. RHI Grant # 2012-03. PI: Craven BC, Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, , McCartney N, Thabane L, Popovic M. 30,000 CAD. [Grants]   
This grant was awarded to offset the travel expenses for subjects with SCI participating in grant # CIHR-177-254. These funds allowed subjects to travel >75km from their home (outside of the GTA) to our site (Toronto Rehab Institute’s Lyndhurst Centre), thereby eliminating a funding barrier to recruitment.   
  
E. Publications   
1. MOST SIGNIFICANT PUBLICATIONS   
1. Craven BC, Hitzig SL, Mittmann N. Impact of impairment and secondary health conditions on health preference among Canadians with chronic spinal cord injury. J Spinal Cord Med. 2012 Oct 1;35(5):361-370. doi: 10.1179/2045772312Y.0000000046. Impact Factor 1.536. Principal Author.   
  
This paper highlights that having a spinal cord injury and related secondary health complications/multiple morbidity negatively impacts health utility scores. The mean health utility scores for our cohort of Ontarians with chronic spinal cord injury were 0.27, which is comparable or lower than those reported in other vulnerable patient populations in Ontario including Stroke, Multiple Sclerosis, Parkinson’s Disease and Alzheimer’s Disease. This data clearly indicates how secondary health complications of moderate intensity have profound adverse implications for health preference. This data will be used to determine the economic impact of specific health complications including pain and fractures.   
2. Alizadeh-Meghrazi M, Masani K, Popovic MR, Craven BC. Whole-Body Vibration during Passive Standing in Individuals with Spinal Cord Injury: Effects of Plate Choice, Frequency, Amplitude and Subject’s Posture on Vibration Propagation. PM&R. 2012 Aug 14;4(12):963-75. Epub 2012 Oct 24. doi: 10.1016/j.pmrj.2012.08.012. Impact Factor 1.372 (Trainee publication, M.A.Sc). Senior Responsible Author.   
  
Prior to evaluating the therapeutic efficacy of passive standing and whole body vibration among individuals with SCI, it was necessary to demonstrate that our goal of applying sufficient vibration to allow propagation to the hip and knee region, without adverse effects of vibration at the trunk and head was safe and biomechanically feasible. The findings in this paper are a key cornerstone of our whole body vibration program of research. In future, we plan to conduct a multicentre trial evaluating the efficacy of this therapy for augmenting bone mass and muscle, and reducing adiposity among individuals with motor complete paraplegia/ tetraplegia.   
3. Alizadeh-Meghrazi M, Totosy de Zepetnek J, Miyatani M, Giangregorio L, Masani K, You L, Popovic M, Craven BC. Whole Body Vibration and Passive Standing for Treatment of Sublesional Osteoporosis After Spinal Cord Injury: Device Optimization & Assessment. 2012 May 15 (Trainee publication, M.A.Sc). Coauthor or Collaborator.   
2. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Gulasingam S, Craven BC. The Health Economics of the spinal cord injury or disease among veterans of war: A systematic review. The Journal of Spinal Cord Medicine. 2017 Aug 14. In Press (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
2. Jaglal SB, Voth J, Guilcher SJT, Ho C, Noonan VK, McKenzie N, Cronin S, Thorogood NP, Craven BC. Creation of an algorithm to identify non-traumatic spinal cord disorder patients in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jul 16. In Press (Trainee publication). Coauthor or Collaborator.   
3. Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio L, Craven BC. The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. Spinal Cord. 2017 Jun 30. In Press (Trainee publication, MSc Candidate). Coauthor or Collaborator.   
4. Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe D, Craven BC. Rehabilitation Interventions to Modify Endocrine-Metabolic Disease Risk in Individuals with chronic Spinal Cord Injury living in the Community (RHSC): A systematic review and scoping perspective. Journal of Spinal Cord Medicine. 2017 Jun 30. Senior Responsible Author.   
5. Guilcher SJT, Voth J, Ho C, Noonan VK, McKenzie N, Thorogood NP, Craven BC, Cronin S, Jaglal S. Characteristics of non-traumatic spinal cord dysfunction (NTSCD) in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jun 29. In Press. Coauthor or Collaborator.   
6. Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC. Agreement between fragility fracture risk assessment algorithms as applied to adults with chronic spinal cord injury. Spinal Cord. 2017 Jun 13;2017:1-9. Senior Responsible Author.   
7. Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. Perspective of Individuals with sub-acute spinal cord injury after personalized adapted locomotor training. Disability and Rehabilitation. 2016 Dec 24. In Press. Coauthor or Collaborator.   
8. Miyatani M, Alavinia M, Szeto M, Moore C, Oh P, Craven BC. Association between Cardiovascular Risk Factors and Arterial Stiffness in People with Chronic Spinal Cord Injury: A Cross-Sectional Study. European Journal of Preventive Cardiology. 2016 Dec 13. In Press (Trainee publication, Post-Doctoral Fellow). Senior Responsible Author.   
9. Gibbs JC, Giangregorio LM, Adachi R, Craven BC, Kowong A, Brown Z. Measuring marrow density and area using peripheral quantitative computed tomography at the tibia: precision in young and older adults in individuals with spinal cord injury. Journal of Clinical Densitometry. 2016 Dec 1. In Press. Coauthor or Collaborator.   
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11. El-Kotob R, Craven BC, Mathur S, Ditor DS, Oh P, Verrier MC. Assessing Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Chronic Traumatic Spinal Cord Injury: A Cross-Sectional Study. Topics in SCI Rehabil. 2016 Oct 21. In Press (Trainee publication, MSc). Coauthor or Collaborator.   
12. Hoskin J, Craven BC, Miyatani M. Quality reporting of carotid intima-media thickness methodology; Current state of the science in the field of spinal cord injury”. Journal of Spinal Cord Medicine. 2016 Sep 13. Coauthor or Collaborator.   
13. Giangregorio LM, Gibbs JC, Craven BC. Measuring muscle and bone in individuals with neurologic impairment; lessons learned about participant selection and pQCT scan acquisition and analysis. Osteoporosis International. 2016 Aug;27(8):2433-2446. Coauthor or Collaborator.   
14. Best K, Ethans K, Craven BC, Noreau L, Hitzig SL. Identifying and classifying quality of life tools for neurogenic bladder function after spinal cord injury: A systematic review. JSCM. 2016 Jul 25. JSCM-D-16-00058R2 (Trainee publication). Coauthor or Collaborator.   
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17. Furlan JC, Craven BC. Psychometric analysis and critical appraisal of the original, revised and modified versions of the Japanese Orthopedic Association Score in the assessment of patients with cervical spondylotic myelopathy. Neurosurgical Focus. 2016 Jun;2016 Jun;4(40(6)):E6 (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
18. Furlan JC, Craven BC, Massicotte EM, Fehlings MG. Early versus late surgical decompression of spinal cord after traumatic cervical spinal cord injury: A cost-utility analysis. World Neurosurg. 2016 Apr;2016Apr(88):166-74. doi:10.1016/j.wneu.2015.12.0272. Impact Factor 2.88 (Trainee publication, Clinical Fellow). Coauthor or Collaborator.   
19. Chopra AS, Miyatani M, Craven BC. Cardiovascular disease risk in individuals with chronic spinal cord injury: Prevalence of untreated risk factors and poor adherence to treatment guidelines. JSCM. 2016 Mar 4:1-8. Senior Responsible Author.   
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23. Guy S, Swati M, Casalino A, Harvey D, Lau B, Middleton JW, O’Connell C, Townson A, Truchon C, Wolfe D, Bradbury CLB, Bryce TN, Casalino A, Cote I, Craven BC, Finnerup NB, Hitzig SL, Kras-Dupuis A, Moulin DE, Orenczuk S, Parrent AG, Potter P, Siddall P, Short C, Teasell R, Widerstrom-Noga E, Loh E. CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Model Systems of Care. Spinal Cord. 2016 Mar;2016 Aug(54 Suppl 1):S24-7. Coauthor or Collaborator.   
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28. Pelletier CA, Miyatani M, Giangregorio L, Craven BC. Sarcopenic Obesity in Adults with Chronic Spinal Cord Injury: A Cross-Sectional Study. Arch Phys Med Rehabil. 2016;97(11):1931-1937 (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
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1. Jetha A, Craven BC, Badley E, Beaton D, Gignac M. Examining Workplace Activity Limitations Among Young Adults Living with Spinal Cord Injuries: A Pilot Study. 2012 May 15. In Press. Principal Author.   
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Presented and Published Abstract   
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Workshop Abstract   
1. Craven BC, Pelletier C, Miyatani M, Moore C, Lynch C, Szeto M. Novel Non-Invasive Methods For The Clinical Assessment Of Body Composition And Associated Endocrine-Metabolic Disease Risk After Chronic SCI. 2015 May 14:30. Accepted by the 4th Int’l Spinal Cord Society and American Spinal Cord Injury Association’s Joint Scientific Meeting, Montreal, QC. May 14-16, 2015.   
This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic events (mortality, fracture,Type II diabetes, heart disease). Total 1.5 hours. Principal Author.   
Other Publications   
1. Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray CF, Noreau L. Identifying Quality of Life Outcome Tools for Measuring the impact of pressure ulcers in persons with spinal cord injury. (Trainee publication, Post-Doctoral Fellow). Poster.   
2. Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Dwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M. Addressing privacy requirements for the development of a national health registry in Canada. Coauthor or Collaborator.   
3. SUBMITTED PUBLICATIONS   
Journal Articles   
1. Jaglal SB, Guilcher SJT, Ho C, Noonan VK, Craven BC, Christie S, Welk B, Wai E, Tsai E, Screevasan V, Wilson J, Fehlings M, Kaleemuddin J. Identifying Non-Traumatic Spinal Cord Injury (NTSCI) from Administrative Health Data in Ontario: Advancing the NTSCI Algorithm. Topics in Spinal Cord Injury Rehabilitation. 2017 Aug (Trainee publication). Coauthor or Collaborator.   
2. Milligan J, Craven BC, Burns A, Lee J, Hillier L, Wolfe D, Bauman C. Enhancing Spinal Cord Injury Consumers by Clinical Use of Videoconferencing. 2017 Jul. Coauthor or Collaborator.   
3. Choukou A, Best KL, Craven BC, Noreau L, Hitzig SL. Identifying and Classifying Quality of Life Tools for Assessing Neurogenic Bowel Dysfunction After Spinal Cord Injury. Journal of Spinal Cord Med. 2017 May 16. Coauthor or Collaborator.   
4. Rivers C, Fallah N, Noonan VK, Whitehurst DGT, Schwartz C, Finkelstein J, Craven BC, Ethans K, O’Connell C, Truchon C, Ho C, Linassi AG, Short C, Tsai E, Drew B, Ahn H, Dvorak MF, Paquet J, Fehlings MG, Noreau L, RHSCIR Network. Secondary health conditiions: impact on function, health-related quality of life, and life satisfaction following traumatic spinal cord injury. Archives of Physical Medicine and Rehabilitation. 2017 Jan. Coauthor or Collaborator.   
5. Craven BC, Kuerban D, Farahani F, Rivers CS, Gagnon DH, Linassi AG, Bouyer L, Ethans K, Ho C, O’Connell C, Noonan VK, RHSCIR Network. It’s not just about neurology: impairment, medical complexity, and functional ability predict rehabilitation length of stay in Canada. Journal of Spinal Cord Medicine. 2017 Jan. Coauthor or Collaborator.   
6. Furlan JC, Gulasingam S, Craven BC. Epidemiology of war-related spinal cord injury among combatants: A systematic review. The Journal of Spinal Cord Medicine. 2017 Jan. Senior Responsible Author.   
7. Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. The Journal of Spinal Cord Medicine. 2017 Jan (Trainee publication, Research Fellow). Coauthor or Collaborator.   
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9. Boggild M, Erlandson M, Tomlinson G, Szabo E, Giangregorio LM, Craven BC, Slatkovska L, Alibbhai S, Cheung A. Effect of whole-body vibration therapy on distal tibial myotendinous density and volume in postmenopausal women. JCEM. 2016 Dec. Coauthor or Collaborator.   
10. Adachi J, Craven BC, Papaioannou A, Giangregorio L, Thabane L, Moore C. Do Muscle Atrophy and Fat Infiltration of Muscle Persist or Plateau in Chronic SCI? Journal of Clinical Densitometry. 2016 Sep. Coauthor or Collaborator.   
11. Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. ‘Service Interruption’ and their impact on rehabilitation outcome variables in patients with traumatic spinal cord injury. 2016 Aug (Trainee publication, Clinical Fellow). Senior Responsible Author.   
12. Craven BC, Gibbs JC, Cote I, Thabane L, Adachi JD, Papaioannou A, Blencowe L, Lynch C, McCartney N, Popovic M, Giangregorio L. Bone Quality in Canadians with chronic spinal cord injury: A prospective cohort study. Int J PMR. 2015 Mar. Principal Author.   
13. Budisin B, Craven BC, Green R. Frequency of traumatic brain injury with Spinal Cord Injury: Understanding the disparity across studies. J Head Trauma Rehabil. 2014 Dec 18 (Trainee publication). Coauthor or Collaborator.   
14. Hitzig SL, Noreau L, Balioussis C, Routhier F, Kairy D, Craven BC. The development of the spinal cord injury participation and quality of life (PAR-QoL) tool-kit. Disabil Rehabil. 2013 Aug;35(16):1408-14. doi: 10.3109/09638288.2012.735340. Impact Factor 1.84. Senior Responsible Author.   
Abstract   
1. Alavinia M, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. Enhancing quality practice for prevention and diagnosis or urinary tract infection during inpatient spinal cord rehabilitation. 2017 Sep. Coauthor or Collaborator.   
2. Bondi M, Burns AS, Gulasingam S Craven BC. Evidence Informed Protocols for the treatment of Sublesional Osteoporosis after SCI. 2017 Mar (Trainee publication). Principal Author.   
3. Cervinka T, Giangregorio LM, Craven BC. Capozza Index from pQCT Imaging Predicts 50% of Variance in Proximal Tibia DXA-derviced Z-scores. 2016 Sep. Senior Responsible Author.   
4. Loh E, Guy SC, Mehta S, Moulin DE, Bryce TN, Middleton JW, Siddall PJ, Hitzig SL, Widerstrom-Noga E, Finnerup NB, Kras-Dupuis A, Casalino A, Craven BC, Lau B, Cote I, Harvey D, O’Connell C, Orenczuk S, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Bradbury CL, Wolfe D. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: introduction, methodology and recommendation overview. Spinal Cord. 2016 Jul;54(S1-S6). doi: 10.1038/sc.2016.88. Coauthor or Collaborator.   
5. Furlan JC, Massicotte EM, Craven BC. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Apr (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
6. Furlan JC, Craven BC. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 2016 Jan. Coauthor or Collaborator.   
7. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2015 Nov 9. Principal Author.   
8. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. Archives PMR. 2015 Nov 9. Principal Author.   
9. Furlan JC, Fehlings MG, Craven BC. A Cost Utility Analysis Comparing Younger Versus Elderly Regarding Acute Care and Rehabilitation Management After Acute Traumatic Cervical Spinal Cord Injury. 2015 Nov. Coauthor or Collaborator.   
10. Furlan JC, Fehlings MG, Massicotte EM, Craven BC. A Cost Utility Analysis Comparing Early Versus Delayed Surgical Decompression of the Spinal Cord After Acute Traumatic Tetraplegia. 2015 Nov. Coauthor or Collaborator.   
Manuscript   
1. Shojaei MH, Alavinia M, Craven BC. Management of obesity after spinal cord injury: a systematic review. The Journal of Spinal Cord Medicine. 2017 Jun 1 (Trainee publication, Research Volunteer). Senior Responsible Author.   
Poster   
1. Burns A, Truchon C, Graveline C, Moore L, Craven BC. Shaping the optimal continuum of care: Using Canadian Registry data to identify key community indicators after traumatic spinal cord injury (tSCI). 2016 Sep 12. Coauthor or Collaborator.   
F. Presentations and Special Lectures   
1. INTERNATIONAL   
Invited Lectures and Presentations   
2017 Apr 5 Invited Speaker. Patient Self-Report Classificator. Wings for Life/SCITT. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. fill in.   
2016 Sep 14 Speaker, Senior Responsible Author. Moving from DXA to pQCT: feasibility and economic considerations and technical recommendations for the SCI community. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Pstakos E, Craven BC. 1)To highlight the importance of peripheral imaging in assessment of bone health and fracture risk among individuals with spinal cord injury or disease (SCI/D)   
2)To review the time required and associated direct medical costs for DXA and pQCT pre-screening, transfer, positioning, scan acquisition, and analysis by the technologist and reporting physician.   
3)To identify technical limitations of DXA, pQCT and HRpQCT for assessment for patients with SCI/D   
4)To provide a succinct review of pQCT/HRpQCT acquisition and analysis protocols in studies among patients with SCI/D based on a recent systematic review.   
5)To propose the most appropriate acquisition and analysis protocols, for diagnosis of sublesional osteoporosis, lower extremity fracture risk prediction, or monitoring of treatment effectiveness among individuals with SCI/D.   
6)To review the key constructs presented through case based discussion.   
2015 May 19 Co-Author. Methodological Considerations of Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Chronic Traumatic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Kotob R, Craven BC, Mathur S,Oh P, Ditor DS, Verrier MC. (Trainee Presentation).   
2015 May 16 Invited Speaker. Exploring the associations between serum sclerostin after nine months of whole body vibration therapy in people with spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Delparte JJ, Giangregorio L, Popovic MR, Szeto M. Primary Author.   
2015 May 14 Workshop Leader. Novel Non-Invasive Methods For The Clinical Assessment Of body Composition And Associated Endocrine-Metabolic Disease After Chronic SCI. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Pelletier C, Miyatani M, Moore C, Szeto M. This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic disease risk and identification of patients at risk for specific endocrine-metabolic events (mortality, fracture, Type II diabetes, heart disease).   
2013 May 8 Invited Lecturer. A Clinical Approach To Sublesional Osteoporosis (Bone Changes After SCI: A Problem with a Solution Workshop). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Schnitzer TJ, Craven BC, Morse L. (Continuing Education).   
2013 May 8 Collaborator. Neurogenic Bowel from the Perspective of Support Providers to Individuals with Spinal Cord Injury (SCI). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Burns AS, St-Germain D, Guindon A, Hitzig S, Delparte J, Craven BC, Connolly M. (Podium).   
2012 Sep 4 Keynote Speaker. Putting Evidence into Practice. International Spinal Cord Society (ISCOS), 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC.   
2012 Aug 16 Keynote Speaker. Spinal Cord Injury and Osteoporosis. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
2012 Aug 15 Keynote Speaker. Osteoporosis – Use of Bone Mineral Density in Spinal Cord Injuries. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
Presented and Published Abstracts   
2016 Sep Co-Author. E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. Academy of Spinal Cord Injury Professionals Educational Conference. Nashville, Tennessee, United States. Presenter(s): Milligan J, Lee J, Craven BC., Wolfe D, Bauman C.   
  
Publication Details:   
E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. The Journal of Spinal Cord Medicine. 2016;39(5):593. Coauthor or Collaborator.   
2015 Oct The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. Presenter(s): Brown Z, Gibbs J, Wong AKO, Craven BC, Adachi JD, Giangregorio L.   
  
Publication Details:   
The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. 2015 Oct. Coauthor or Collaborator.   
2015 May 16 Collaborator. 2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury. The 4th ISCoS and ASIA Joint Scientific Meeting, May 14-6, 2015. Montreal, Quebec, Canada. Presenter(s): Guy S, Mehta S, Loh E, SCI NP Working Group. I am a member of the Neuropathic Pain Guideline Working Group.   
  
Publication Details:   
2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury.   
2015 May 15 Senior Responsible Author. Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Pelletier CA, Miyatani M, Moore C, Giangregorio L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury.   
2015 May 15 Coauthor. Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Popovic MR, Kapadia N, Hitzig SL, Giangregorio LM, Craven BC, Flett H.   
  
Publication Details:   
Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency.   
2015 May 15 Coauthor. Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI). 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Burns A, Truchon C, Graveline C, Moore L, Craven BC, ACT Indicator National Working Group.   
  
Publication Details:   
Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI).   
2014 Sep Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Sep Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Neurologic examinations - anatomy and severity.   
  
Publication Details:   
Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM et al. Neurologic examinations - anatomy and severity. Top Spinal Cord Inj Rehabil. 2014. Coauthor.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Malada, Spain. Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. (Trainee Presentation)   
  
Publication Details:   
Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods.   
Invited Meetings   
2013 Oct 2 Chair. E-Scan: Moving from Blueprint to Action 2013. Ontario Neurotrauma Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Two day consensus meeting (October 2- 3, 2013) leading to the development of a rehabilitation manifesto.   
Podium Presentation   
2012 May 15 Collaborator. Addressing Privacy Requirements for the Development of a National Health Registry in Canada. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Kwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M.   
Poster   
2016 Sep 14 Collaborator. E-Consultation: Building Capacity for Spinal Cord Injury in Primary Care. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Milligan J, Lee J, Craven BC, Wolfe D, Bauman C. (Trainee Presentation).   
2016 Sep 14 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Grades Among Individuals with Chronic Spinal Cord Injury. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Sep 14 Collaborator. What does clinical practice for spinal cord injury pain look like in Canada? A national survey of healthcare providers. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Guy S, Cote I, Craven BC. Loh E. (Trainee Presentation).   
2016 Sep 13 Collaborator. Bridging the Gaps from Spinal Cord Injury Research to Improved Outcomes: PRAXIS 2016. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Creasey GH, Andresen KD, Choi D, Clarke-Richardson P, Craven BC, Guest JD, Kleitman N, Kwon BK, McKerracher L, Hunder Peckham P, Steeves JD, Strachan D, Tomlinson M, Truchon C, White B, Joshi P. (Trainee Presentation).   
2015 May 19 Senior Responsible Author. Relationship between Carotid-Femoral Arterial Stiffness and Carotid Intima-Media Thickness in Individuals with Chronic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Miyatani M, Szeto M, Alavinia SM, Oh PI, Craven BC. This study explores the association between Carotid-Femoral PWV and Carotid IMT in a cohort of patients with chronic spinal cord injury (n=74). (Trainee Presentation).   
2015 May 14 Coauthor. Identifying and classifying quality of life tools for assessing bladder dysfunction after spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Best KL, Hitzig SL, Ethans K, Craven BC, Noreau L.   
2014 Oct 7 Senior Responsible Author. The Participation and Quality of Life (PAR-QoL) Tool-Kit: Outcomes and Next Steps. American Congress of Rehabilitation Medicine (ACRM) Progress in Rehabilitation Research Annual Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Routhier F, Noreau L, Kairy D, Atack L, Craven BC. Poster presentation on the PAR-QoL website. (Continuing Education).   
2014 Sep 14 Coauthor. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. (Trainee Presentation).   
2014 Sep 12 Coauthor. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. (Trainee Presentation).   
2014 Sep Coauthor. Neurogenic Bowel after Spinal Cord Injury (SCI): the Perceived Importance of Identified Concerns to Persons with SCI and Health Care Professionals. International Spinal Cord Society (ISCOS) 53rd Annual Scientific Meeting. Maastricht, Limburg, Netherlands. Presenter(s): Burns AS, St.-Germain D, Guindon A, Hitzig SL, Delparte JJ, Craven BC, Connolly M, Wolfe D.   
2014 May 14 Collaborator. Neurologic examinations - anatomy and severity. American Spinal Injury Association (ASIA) 41st Anniversary Scientific Meeting. San Antonio, Texas, United States. Presenter(s): Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM, Noonan V, Paquet J, Parent S, Rivers C, Townson A, Tsai EC, Tsui D.   
2014 Mar 20 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. The International Brain Injury Association’s 10th World Congress on Brain Injury. San Francisco, California, United States. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Nov 27 Senior Responsible Author. Exploring Daily Blood Pressure Fluctuations Among Individuals with Chronic SCI During Activities of Daily Living. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury. Vancouver, British Columbia, Canada. Presenter(s): Dance D, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC. Poster Competition Award Winner, 4th Place. (Trainee Presentation).   
2013 Nov 5 Senior Responsible Author. Interim Results from the Burden of Bowel Dysfunction in Spinal Cord Injury Study. ISPOR 16th Annual European Congress. Dublin, Ireland. Presenter(s): Mittmann N, Bannon G, Hassan S, Seung SJ, Kee P, Cartolano NS, Pinto PM, Smith K, Wolfe D, Craven C.   
2013 Oct 29 Senior Responsible Author. Preliminary face validity of target SCIM III median values for prediction of functional outcome after traumatic SCI. International Spinal Cord Society (ISCOS) 52nd Annual Scientific Meeting. Istanbul, Istanbul, Turkey. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2012 Oct 15 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting. Minneapolis, Minnesota, United States. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi J, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Oct 9 Coauthor. Cautions regarding subcapital whole body DXA scan interpretation among boys with Duchenne Muscular Dystrophy (DMD). 17th International Congress of the World Muscle Society. Perth, Australia. Presenter(s): Mayo AL, McAdam L, Biggar WD, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 Sep 3 Principal Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A, Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM, Popovic MR.   
2012 Sep 3 Senior Responsible Author. Association between arterial stiffness, cardiovascular risk factors, and injury related risk factors in people with spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. Predicting health preference in spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Hitzig SL, Giangregorio LM, Katz J, Noreau L, Wolfe D, Mittmann N.   
2012 Sep 3 Principal Author. Exploring the feasibility and scalability of central recruitment for patients with subacute SCI in tertiary academic rehabilitation centres. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Brisbois LM, Carson JR, Verrier MC.   
2012 Sep 3 Senior Responsible Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A. Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM. Popovic MR.   
2012 Sep 3 Sr. Responsible Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. 51st Annual Meeting of the International Spinal Cord Society (ISCoS). London, Westminster, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 May 17 Collaborator. Identifying Quality of Life Outcome Tools for Measuring the Impact of Pressure Ulcers in Persons with Spinal Cord Injury. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray C, Noreau L. (Trainee Presentation).   
2012 May 17 Coauthor. Walking Measures Inform SCI Rehabilitation Practice and Research. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Verrier M, Guy K, Morris H, Williams J, Marinho A, Popovic M, Craven BC, Flett H.   
2012 May 17 Collaborator. Examining workplace activity limitations among young adults living with spinal cord injuries: A pilot study. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Jetha A, Craven BC, Badley E, Beaton D, Gignac M. (Trainee Presentation).   
2012 May 16 Principal Author. Using Scoping Review Methodology to Conduct a Canadian Spinal Cord Injury (SCI) Rehabilitation Environmental Scan (E-Scan). Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Craven C, Balioussis C, Verrier M, Hsieh J, Noonan V, Raschid A, Wolfe D, Cherban E.   
2012 May 15 Coauthor. Rick Hansen Spinal Cord Injury Registry and Ontario Spinal Cord Injury Registry: Relationships Between Respiratory Status and Length-Of-Stay in Acute Care and Rehabilitation. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Tsui D, Drew B, Ansley B, Macrae L, Craven BC, Verrier M. (Continuing Education).   
2012 May Senior Responsible Author. The Associations Between Aerobic Capacity and Arterial Stiffness in People with Chronic Spinal Cord Injury. American College of Sports Medicine. San Francisco, California, United States. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. ACSM’s 59th Annual Meeting and 3rd World Congress on Exercise is Medicine, May 29- June 2, 2012, San Francisco, California. (Trainee Presentation).   
2012 Mar 23 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis. Bordeaux, France. Presenter(s): Wong AKO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis, Palais des Congrès de Bordeaux, France, March 21-24, 2012.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. 2012 IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Brussels, Belgium. Presenter(s): Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L.   
2. NATIONAL   
Invited Lectures and Presentations   
2017 May 25 Invited Speaker. Sarcopenic Obesity, Endocrine Metabolic Disease Risk & Other Mysterious Terms. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC.   
2017 May 25 Invited Speaker. Career Reflections. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Invited keynote presentation as the Award of Merit recipient.   
The session was intended to assist attendees in 1) distinguishing valuable mentors; the importance of demonstrating CAPMR organizational commitment through networking activities; scheduling time out of the blur to articulate academic goals, synthesize the unique challenges for the field and advance care in the coming decade.   
Criteria for the Award of Merit nomination:   
Must be a member in good standing with the CAPM&R (any category).   
Must have contributed to the activities of the CAPM&R and/or CPRDF   
Must not be a current member of the CAPM&R Executive Committee.   
Must be nominated by his/her peers, at least one who is a CAPM&R member.   
Has made a contribution to the field of Physiatry, through research, education, advocacy, medical care, humanitarianism, mentorship, or the advancement of our field.   
2017 Apr 7 Invited Speaker. Central Recruitment Moving from Pilot Project to Institutional Wide Implementation. ICORD. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. Learning Objectives:   
1. Why Clinical Trials Fail   
2. How to Augment Recruitment   
3. The CR Model   
4. Assumptions Underpinning CR   
5. Implementation Strategies.   
2016 Nov 11 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-HIGH). Canadian Spinal Cord Injury Urohealth Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. 1. To provide an overview of the SCI-HIGH project   
2. To emphasize the importance of UTI prevention among rehabilitation domains   
3. To highlight the activities of the SCI-HIGH UTI working group and the E-Scan prescription for change.   
2016 Oct 18 Invited Speaker. Bone Health Service for Patients with SCI: Self Evaluation. Arthur Shears Rehab Research Day. Halifax, Nova Scotia, Canada. Presenter(s): Craven BC.   
2016 May 27 Workshop Leader. A review of Cervical Spondylotic Myelopathy (CSM) and Introduction to the SCI-HIGH project. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Furlan JC.   
2016 May 25 Facilitator. Time Management Pearls for Busy Clinicians and Scientists. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Bayley M, Teasell R.   
2016 May 24 Invited Speaker. SCI Rehabilitation Care High Performance Indicators Project Update. Rick Hansen Institute Care Advisory Committee Meeting. London, Ontario, Canada. Presenter(s): Craven BC.   
2016 Apr 25 Invited Speaker. Making Real Change: In the Context of the “Exercise is Medicine” Paradigm. Rick Hansen Institute Praxis 2016. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2015 May 23 Invited Speaker. Research Budget Writing for Dummies. CAPM&R 63rd Annual Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2014 Jun 21 Invited Speaker. CAPM&R SCI Special Interest Group Meeting: Challenging cases and updates on Canadian research. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC, Smith K. Objectives:   
At the end of this session, participants will be able to:   
1) Outline the approach to the management of osteoporosis following acute spinal cord injury   
2) Describe the potential role of postprandial hypotension on autonomic instability following spinal cord injury.   
2013 May 29 Invited Speaker. CAPM&R Research Committee Meeting: How to Write a Brilliant Letter of Nomination/Recommendation. CAPM&R 2013 Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC.   
2012 Oct 20 Invited Speaker. Capturing Capacity in SCI Rehabilitation in Canada: E-Scan Atlas. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Cherban E, Hsieh J, Noonan V, Rasheed A, Verrier M, Wolfe D. (Continuing Education).   
2012 Oct 19 Invited Speaker. Top Six Articles You Need to Read. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Short C, Smith KM, Ethans K, Krassioukov A, O’Connell C. (Continuing Education).   
2012 Jan 20 Invited Speaker. Canadian Comprehensive Review Course in Physical Medicine & Rehabilitation: Secondary Health Complications of Spinal Cord Injury. Canadian Association of Physical Medicine & Rehabilitation / University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven, BC. To provide a succinct overview of the common and serious secondary health complications of SCI.   
Presented Abstracts   
2017 May 24 Senior Responsible Author. Patient Recruitment in Spinal Cord Inured Populations: An Ethical Model at Toronto Rehabilitation Institute. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Brisbois, L, Heeters A, Craven BC.   
2017 May 24 Senior Responsible Author. The Health Economics of the Spinal Cord Injury or Disease (SCI/D) Among War Veterans: A Systematic Review. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Sivakumar G, Furlan J, Craven BC.   
2016 May Senior Responsible Author. How do you feel? A review of mood disorder screening tools appropriate for use during inpatient spinal cord injury rehabilitation. 2016 CAPMR-64th Annual Scientific Meeting. London, Ontario, Canada. Titman R, Craven BC. (Trainee Presentation).   
2016 May Senior Responsible Author. A Cost-Utility Analysis Comparing Younger versus Elderly Regarding Acute Care and Rehabilitation Management after Acute Traumatic Cervical Spinal Cord Injury. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
Presented and Published Abstracts   
2016 May 27 Senior Repsonsible Author. Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Titman R, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation.   
2016 May 27 Senior Repsonsible Author. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. (Trainee Presentation)   
  
Publication Details:   
The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal.   
2016 May 27 Senior Repsonsible Author. Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Robinson L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation.   
2016 Apr Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Craven BC. (Trainee Presentation)   
  
Publication Details:   
Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains.   
2014 Sep It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada.   
  
Publication Details:   
Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. J Spinal Cord Med. 2014 Sep;37(5):616. Principal Author.   
2014 Sep Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice.   
  
Publication Details:   
Hadi SC, Craven BC. Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice. J Spinal Cord Med. 2014 Sep;37(5):618-619. Senior Responsible Author.   
2014 Sep Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study.   
  
Publication Details:   
Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. J Spinal Cord Med. 2014 Sep;37(5):619-620. Senior Responsible Author.   
2014 Sep Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi R, Popovic M, Giangregorio L, McCartney N. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):647-648. Coauthor or Collaborator.   
2014 Sep Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis.   
  
Publication Details:   
Noonan et al. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. J Spinal Cord Med. 2014 Sep;37(5):622-623. Coauthor.   
2014 Sep Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective.   
  
Publication Details:   
Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. J Spinal Cord Med. 2014 Sep;37(5):630. Coauthor.   
2014 Sep The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury.   
  
Publication Details:   
El-Kotob R, Verrier MC, Mathur S, Craven BC. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):644-645. Senior Responsible Author.   
2014 Sep Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey.   
  
Publication Details:   
Pelletier C, Dumont F, Noreau L, Craven BC. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. J Spinal Cord Med. 2014 Sep;37(5):648. Senior Responsible Author.   
2014 Sep Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto.   
  
Publication Details:   
Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. J Spinal Cord Med. 2014 Sep;37(5):658. Principal Author.   
2014 Sep Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines?   
  
Publication Details:   
Noonan et al. Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines? J Spinal Cord Med. 2014 Sep;37(5):623. Coauthor or Collaborator.   
Media Appearances   
2013 May 17 Talk Show Guest. Spinal Cord Injuries & E-Scan Atlas Release. Interviewer: Dr. Marla Shapiro. Dr. Marla and Friends, CTV. Toronto, Ontario, Canada. Presenter(s): BC Craven. Episode 33: Short segment discussing current state of spinal cord injury in Canada and potential impact of the E-Scan Atlas release on the state of spinal cord injury rehabilitation in 2020.   
Invited Meeting   
2016 May 24 Facilitator. Rick Hansen Care Advisory Committee Strategic Planning Session. Rick Hansen Institute. London, Ontario, Canada. Chair of the Care Committee responsible for implementing the strategic planning session intended to inform the 2013-2018 RHI Business Plan.   
2014 Oct 2 Invited Attendee. Canadian Pressure Ulcer Strategy Meeting. Rick Hansen Instititute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Invited Attendee. Rick Hansen Institute Care Program Advisory Committee Meeting. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. This was a two day meeting of the advisory committee, from October 4th-5th, as it related to the implementation of Rick Hansen Institute’s 2013-2018 business plan.   
2012 Aug 10 Invited Attendee. Rick Hansen Institute Translational Research Advisory Committee (TRAC) Retreat. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. The objective of the TRAC retreat is to identify translational research and best practice implementation priorities to RHI’s Board of Directors for the period of 2013-2018 using the funds committed by the federal government through the Western Economic Diversification Fund (WD) to RHI in the 2012 federal budget.   
2012 May 15 RHSCIR Site Lead. Rick Hansen Spinal Cord Injury Registry (RHSCIR) Investigator Meeting. Rick Hansen Institute. Vancouver, British Columbia, Canada. The Rick Hansen Spinal Cord Injury Registry (RHSCIR) project aims to collect a standardized observational dataset throughout the continuum of care and lifetime of individuals sustaining new, traumatic spinal cord injuries and admitted to participating facilities in Canada. The RHSCIR Investigator meeting provides an opportunity for an update on the current project status, plans for data access, and to provide an opportunity to shape the future vision and deliverables of the project.   
Media Highlights of Research Activities   
2014 Dec Responsible Author for featured work. PAR-QoL Newsletter. Toronto, Ontario, Canada. This newsletter features the Spinal Cord Injury Manifesto.   
www/idapt.com/research/manifesto. Available from: http://www.parqol.com/newsletter\_view.cfm.   
Poster   
2017 May 12 Senior Responsible Author. Association between Statin Treatment and Regional Bone Mineral Density in Individuals with Chronic Spinal Cord Injury: A Cross-Sectional Study. ONF-RHI. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Alavinia M, Blencowe L, Giangregorio LM, Craven BC. RoBaCO Trial Pilot Data.   
2016 Apr Senior Responsible Author. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
2016 Apr Senior Responsible Author. The SCI-HIGH (Spinal Cord Injury High Performance Indicators) process for advancing SCI rehabilitation care by 2020. 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) during Spinal Cord Injury (SCI). 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Acute Care and Rehabilitation Management of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. The American Academy of Neurology 68th Annual Meeting. Vancouver, British Columbia, Canada. Furlan J, Craven BC. (Trainee Presentation).   
2014 Oct 4 Presenter. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Award Winner Education Category- 2nd Place.   
2014 Oct 4 Coauthor. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials By Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan et al.   
2014 Oct 4 Coauthor. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C.   
2014 Oct 4 Senior Responsible Author. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): El-Kotob R, Verrier MC, Mathur S, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Pelletier CA, Dumont FS, Noreau L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury (SCI). 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L, McCartney N. (Trainee Presentation).   
2014 Oct 4 Presenter. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V.   
2014 Oct 4 Senior Responsible Author. Rehab Interrupted: Frequency, Type And Duration Of Service Interruptions During Inpatient SCI Rehabilitation. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. (Trainee Presentation).   
2014 Oct 3 Senior Responsible Author. Incorporating Evidence-Based Practice Into Life Care Plans Through Scholarly Practice. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hadi SC, Craven BC.   
2014 Jun 20 Senior Responsible Author. Survey of Canadian Practice Patterns in Venous Thromboembolism Prophylaxis in Adults with Spinal Cord Injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townsen A, Jacquemin G, Short C, Smith K, O’Connell C, Askari S, Ho C, Hill D, Craven BC. (Trainee Presentation).   
2014 Jun 20 Invited Speaker. Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC (presenter), Zeng L, Farahani F, Hitzig SL. Original Research Contest Award Winner: 3rd Place.   
2014 Jun 19 Senior Responsible Author. Evaluating Practice Patterns in Thromboembolism Prophylaxis in Adults with Spinal Cord Injury: Practice of Canadian Spinal Cord Injury Rehabilitation Physiatrists. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townson A, Jacquemin G, Short C, O’Connell C, Smith K, Askari S, Ho C, Hill D, Craven BC.   
2014 Jun 19 Collaborator (expert panel). The development of a clinical practice guideline for the diagnosis and management of neuropathic pain following spinal cord injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Guy S, Mehta S, Gorski J, O’Connell C, Potter P, Townson A, Loh E, and CPG Working Group.   
2012 Oct 19 Coauthor. Lack of generalizability of the randomized clinical trials on initial management of acute traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan J, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Oct 19 Collaborator. FES-assisted walking versus conventional exercise to augment gait in chronic spinal cord injury: Impact on quality of life and community integration. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Panjwani A, Craven BC, Desai N, Popovic MR. (Trainee Presentation).   
2012 Oct 19 Coauthor. Exploring relationships between knee region bone mineral density and prevalent fractures among individuals with SCI: A nested case-control study. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Giangregorio L. (Trainee Presentation).   
2012 Oct 19 Coauthor. Metabolic Syndrome (MetS) Risk Factors are not Sufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Oct 19 Coauthor. Social Networks and Secondary Health Conditions: The Critical Secondary Team for Individuals with a Spinal Cord Injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Lemieux-Charles L, Casciaro T, Craven BC, McColl MA, Jaglal S. Poster Award Winner- Patient Care Category. (Trainee Presentation. Continuing Education).   
2012 Oct 19 Collaborator. Access to Care (ACT) For Traumatic Spinal Cord Injury: A Survey of Canadian Acute and Rehabilitation Centres. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan VK, Townson A, Fox R, Hurlbert RJ, Linassi AG, Ethans K, Tsui D, Burns AS, Craven C, Wolfe D, Truchon C, Gagnon D, Charron J, Fehlings MG, Soril L, Santos A, Dvorak MF.   
2012 Oct 19 Coauthor. Knee DXA Measurement for the Assessment of Sub-lesional Osteoporosis After Spinal Cord Injury: A Knowledge Translation (KT) Activity. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Coté I, Wolfe D, Boulet M, Giangregorio L. (Continuing Education).   
2012 Oct 19 Coauthor. Dealing with Secondary Health Conditions and Spinal Cord Injury: An Uphill Battle in the Journey of Care. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Lemieux-Charles L, Casciaro T, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. A Randomized Controlled Trial of Functional Electrical Stimulation Therapy for Walking Versus a Conventional Exercise Program in Patients with Chronic Incomplete Spinal Cord Injury: Effects on Body Composition. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Giangregorio L, Craven C, Kapadia N, Richards K, Popovic MR.   
2012 Oct 19 Senior Responsible Author. Associations Between Arterial Stiffness and Traditional and SCI Specific Cardiovascular Disease Risk Factors. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh P, Craven C. (Trainee Presentation).   
2012 Oct 19 Coauthor. Functional Electrical Stimulation Therapy for Walking Versus Conventional Exercise Program for Patients with Chronic Incomplete Spinal Cord Injury: A Randomized Controlled Trial. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Kapadia N, Masani K, Craven C, Giangregorio L, Hitzig S, Richards K, Popovic MR.   
2012 Oct 19 Coauthor. Is the Emergency Department an Appropriate Substitute for Primary Care for Persons with Traumatic Spinal Cord Injury? 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Calzavara A, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. Direct Cost of Adult Traumatic Spinal Cord Injury in Ontario. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Munce SEP, Wodchis W, Guilcher SJT, Couris C, Verrier M, Fung K, Craven BC, Jaglal SB.   
2012 Oct 19 Coauthor. A phenomenological analysis of neurogenic bowel dysfunction following spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guindon A, Hitzig SL, Connolly M, Delparte JJ, Craven BC, St-Germain D, Burns AS.   
2012 Jun 22 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Craven B, Oh P. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Coauthor. Bone Health in Boys with Duchenne Muscular Dystrophy on Long-term Daily Deflazacort Therapy. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Mayo A, Craven B, McAdam L, Biggar W. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Using Scoping Review Methods to Describe & Evaluate Canadian SCI Rehabilitation Service Delivery. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Verrier M, Balioussis C, Hsieh J, Rasheed A, Wolfe D, Noonan V. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Knowledge Translation Initiatives to Increase the Detection and Improve Management of Sublesional Osteoporosis after SCI. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Adachi J, Hawker G, McGillivray C, Cote I, Giangregorio L. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 May 6 Collaborator. Preliminary Results from the Baseline Questionnaire of the Burden of Bowel Dysfunction in Spinal Cord Injury Study. Canadian Association for Population Therapeutics (CAPT) Annual Conference. Montreal, Quebec, Canada. Presenter(s): Mittmann N, Seung SJ, Hassan S, Bannon G, Craven BC. 2012 CAPT Annual Conference “Effectiveness and safety of therapeutics: Dealing with transparency, minimizing bias, and improving knowledge translation to concerned stakeholders”, Montreal, QC, May 6-8, 2012.   
Poster Presentation   
2014 Jun 20 Collaborator. Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Fortin C (presenter), Voth J, Jaglal S, Craven BC. Resident Research Award Winner: 3rd Place. (Trainee Presentation).   
3. PROVINCIAL / REGIONAL   
Invited Lectures and Presentations   
2017 Mar 31 Invited Speaker. Improving Primary Care and Community Support. SCI Solutions Alliance, Ministry of Health. Toronto, Ontario, Canada. Presenter(s): Craven BC, Athanasopoulous P, Bassett-Spiers K, Milligan J, Berg P. A dialogue regarding opportunities to advance primary care and community support for patients living with spinal cord injury in the community within Ontario. (Presentation to Patients/Public).   
2017 Mar 17 Distinguished Speaker. Biomechanics in Action: Perspectives from a Tertiary Spinal Cord Injury Rehab Hospital. York University School of Kinesiology and Health Science. North York, Ontario, Canada. Presenter(s): Craven BC. Two 1 Hour Lectures to undergraduate KINE 3030 Students with 400 students in each session overall learning objctives included:   
-Who am I, How & where do I spend my time?   
-How did I get here?   
-Individuals living with a Spinal Cord Injury (SCI), their Health Issues & Exercise Dilemmas   
-Biomechanics in Action - The Promise of WBV   
-Words to the Wise.   
2016 Nov 23 Invited Speaker. Staying Healthy After Spinal Cord Injury. Primary and Community Care Spinal Cord Injury Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. After this session you will be able to:   
Help to prevent inappropriate ER visits   
Implement strategies for detection of common & serious health conditions after SCI   
Introduce you to the 100,000km tune-up.   
2016 Nov 18 Invited Speaker. Endocrine Metabolic Disease Risk: What’s Next? The RoBaCO Trial. 15th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Body Composition and Multi Morbidity after Spinal Cord Injury. 14th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Endocrine Metabolic Disease Risk after Spinal Cord Injury: Legitimate Intervention Targets. Tator/Turnbull Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Oct 23 Invited Speaker/Workshop Leader. New SCI Standards Introductions to People and Processes to Facilitate Adoption and Accreditation. Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Guy K, Devji T, Bertoli-Haley S, Walden K, Noonan V. This interactive workshop outlines best practices described in the SCI standards, highlight current resources available to support sites interested and/or undergoing accreditation, discuss strategies for addressing challenging standards, aids sites in preparation for Accreditation Canada tracers, enable cross site networking, and identify how participation in SCI-High will support future benchmarking and optimal care delivery.   
2015 Oct 23 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-High). Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Bayley M, Hitzig SL, Alavinia M, Farahani F. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting Oct 23, 2015.   
2015 Jun 11 Speaker. Auto Insurance Reform and SCI Rehabilitation. Ontario Ministry of Finance. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Athanasopoulos. Provided data to the Ministry of Finance to support the statement that the proposed Catastrophic Impairment Funding Thresholds for SCI are rather arbitrary and insufficient.   
2015 Jan 12 Presenter. Sarcopenic Obesity in Patients with Spinal Cord Injury: Moving Towards a Global Measure of Metabolic Disease. The Department of Physical Medicine and Rehabilitation, University of Western Ontario. London, Ontario, Canada. Presenter(s): Craven BC. Provided feedback to each of the residents following their Research Day presentations.   
2014 Oct 31 Invited Speaker. Post Debate Commentary, Techna 2014 Symposium-Robotics for Healthcare. Techna Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC, Bell R. Audit 8 hours of presentations throughout the day and provide 60 minutes of post event commentary. Available from: http://symposium.technainstitute.com/speeches.php. (Continuing Education).   
2013 Jun 13 Invited Speaker. Implications of SCI Research in Life Care Planning. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on current spinal cord injury research at the biannual Practical Strategies Conference.   
2012 Jan 19 Invited Speaker. From Hospital to Home- The Continuum of Care After SCI. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on the ABC’s of Autonomic Dysreflexia. (Presentation to Patients/Public).   
Presented Abstracts   
2016 Nov 18 Speaker. The RoBaCO Trial: Efficacy & Safety of Rosuvastatin for Preserving Bone Mass & Reducing Cardio-Metabolic Disease Risk after SCI. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 18 Research Supervisor. Selecting a Screening Tool for Depression in Spinal Cord Injury. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Titman R. (Trainee Presentation).   
Invited Meeting   
2015 Apr 15 Steering Committee Member. PRISM: Primary Care and Rehabilitation and Integration with self management for Spinal Cord Injury. Waterloo, Ontario, Canada.   
2014 Dec 17 Presenter. ONF-REPAR Meeting. ONF-REPAR. Toronto, Ontario, Canada. Presenter(s): Craven BC, Maltais D. SCI-IMPACT Team Update on Activities 2011-2014.   
2014 Sep 15 Attendee. Management of Neuropathic Pain After Spinal Cord Injury: Clinical Practice Guidelines for the Rehabilitation and Outpatient Setting. ONF/Rick Hansen Institute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Attendee. Ontario Spinal Cord Injury Research Network (OSCIRN). Ontario Neurotrauma Foundation (ONF). Toronto, Ontario, Canada.   
2012 Apr 28 Invited Speaker. Determining the therapeutic effectiveness of WBV for treatment of altered body composition after SCI.Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Podium presentation at the Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
2012 Apr 28 Invited Speaker. Introduction to the NeuroRecovery Network (NRN): Developments in Ontario, Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting April 27-29, 2012.   
2012 Apr Collaborator. Understanding the neurogenic bowel experience following spinal cord injury from the perspective of stakeholders. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Burns AS (presenter), St-Germain D, Connolly M, Hitzig SL, Guindon A, Delparte J, Craven BC, Wolfe D. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
Media Highlights of Research Activities   
2015 Dec Responsible Author for featured work. SCI Conference: A Remarkable Experience. NeuroMatters Newsletter: Winter 2015, Issue 25:. Toronto, Ontario, Canada. This article highlighted the 6th National Spinal Cord Injury Conference that was held in Toronto Oct 2nd - 4th, 2014 and illustrates the impact and experience the conference had on attendees and individuals living with a spinal cord injury. Available from: http://onf.org/system/attachments/300/original/Issue25Jan6.pdf.   
2014 Sep Responsible Author for featured work. Being a Research Participant. NeuroMatters Newsletter: Fall 2014, Issue 24. Toronto, Ontario, Canada. This issue showcased the central recruitment pilot study led by Dr. B. Catharine Craven and Professor Molly Verrier at Toronto Rehab’s Lyndhurst Centre. The article illustrates the impact of this pilot study, which assesses the feasibility of developing a centralized recruitment process to reduce the burden of research participation on participants, and discusses the future steps. Available from: http://onf.org/system/attachments/286/original/NeuroMatters Issue 24web.pdf.   
2013 Mar Responsible Author for featured work. Preventing Heart Attacks Before They Happen. NeuroMatters Newsletter: Spring 2013, Issue 21. Toronto, Ontario, Canada. This issue featured Dr. Masae Miyatani’s post-doctoral work on defining the associations between arterial stiffness and coronary artery disease risk factors in individuals with spinal cord injury. It highlights the current knowledge gap in this area and draws attention to the impact and importance of her work. Available from: http://onf.org/system/attachments/161/original/NeuroMattersIssue Spring 2013.pdf.   
4. LOCAL   
Invited Lectures and Presentations   
2017 Jan 18 Invited Speaker. Work Life Balance. UHN Research. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 8 Invited Lecturer. Epidemiology of Spinal Cord Injury (SCI). University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC, Furlan JC, Noonan VK.   
2016 Nov 1 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. UHN-Research Executive Committee. Toronto, Ontario, Canada.   
2016 Oct 26 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TREC Finance Committee. Toronto, Ontario, Canada.   
2016 Sep 30 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TRI Leadership Forum. Toronto, Ontario, Canada.   
2016 May 6 Senior Responsible Author. TRI Robotic Opportunities. Toronto Rehab Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Overview of Opportunities to fund Robotic Innovations at Toronto Rehab.   
2016 Apr 13 Speaker. Centralized Recruitment: Moving from Theoretical Framework to Implementation. UHN: Toronto Rehab Research Advisory Committee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Jones S, Brisbois L.   
2016 Feb 20 Invited Lecturer. Osteoporosis and Sublesional Osteoporosis. CAPMR. Toronto, Ontario, Canada. Presenter(s): Craven BC. A 90 minute review of Osteoporosis and Sublesional Osteoporosis management including identification of patients with high fracture risk who require therapy, selection of appropriate osteoporosis therapy, determination of therapy effectiveness and fall risk assessment and prevention guidelines.   
2015 Dec 2 Presenter. Urinary Tract Infection Quality Improvement Strategies. Toronto Rehabilitation Institute - UHN - Spinal Cord Rehabilitation Program. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 5 Invited Facilitator. Gail Aguillon, Director Adult Rehabilitation Glenrose Rehab Hospital. Joanne Zee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Popovic M. Tour of visiting administrator of Clinical and Research Activities.   
2015 Mar 23 Speaker. The 5 W’s of the Rick Hansen SCI Registry 2.0 (who, what, where, when and why). Toronto Rehab’s Spinal Cord Rehabilitation Program’s Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Farahani F. Flett H, Musselman K, Guy K. (Continuing Education).   
2014 May 29 Invited Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement and Research Participation in Spinal Cord Rehab. Toronto Rehabilitation Institute: SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): BC Craven, L Brisbois. (Continuing Education).   
2014 May 29 Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement. SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois L.   
2013 Jan 29 Invited Speaker. Panel Discussion: Neurological Disorders (Stroke, Dementia, and Spinal Cord Injuries) and their Effects on Bone Health. Centre of Excellence in Skeletal Health Assessment (CESHA). Toronto, Ontario, Canada. Centre of Excellence in Skeletal Health Assessment (CESHA): Annual Outreach Education Evening, Toronto, ON, Canada, January 29, 2013. (Continuing Education).   
2012 Nov 9 Presenter. Physiatry Academic Half Day: How to Write and Abstract. Department of Medicine University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Presented Abstracts   
2016 May 2 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) among inpatients during Spinal Cord Injury (SCI) rehabilitation-Innovations influencing rehabilitation. GTA Rehab Network. Toronto, Ontario, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zimcik H, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2015 Nov 18 Senior Responsible Author. Surgical Management and Rehabilitation of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. UHN-Toronto Rehab Research Day. Toronto, Ontario. Furlan JC, Fehlings MG, Craven BC. (Poster). (Trainee Presentation).   
2015 Nov 18 Presenter. The Rick Hansen Spinal Cord Injury Registry: Consent and Retention Rates 2010-2015. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Patsakos EM, Farahani F, Brisbois L, Flett HM, Craven BC.   
2015 Nov 18 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infections During Inpatient SCI Rehabilitation. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Alavinia M, Zimcik H, Zee J, Bayley M, Craven BC. (Presentation to Patients/Public).   
Invited Meeting   
2015 Mar 23 Attendee. RHSCIR/Walking Measures Best Practice Forum. UHN-Toronto Rehab. Toronto, Ontario, Canada.   
2014 Mar 27 Attendee. Coaching for High Performance Workshop. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada.   
2014 Jan 31 Invited Speaker. Centralized Recruitment Strategies for Optimizing Patient Engagement & Research Participation. Toronto Rehabilitation Institute Leadership Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Zeman K, Brisbois L.   
Invited Meetings   
2012 Nov 7 Invited Speaker. UHN REB Retreat. UHN Research Ethics Board (REB). Toronto, Ontario, Canada. Presenter(s): Craven BC. Presentation on the Toronto Rehab central recruitment process and data on the research participant pool.   
2012 Apr 24 Invited Speaker. Peer Mentor Meeting: Implementing the Osteoporosis Canada Guidelines: Clinical Pearls for Physiatrists. Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Invited Panel Discussion   
2017 Jan 18 Panel Member. TRI Mentorship Series: Work-Life Balance. Susan Jaglal, Toronto Rehab Research Institute. Toronto, Ontario, Canada. Presenter(s): McGilton K, Alter D, Craven BC, Rochon E, Kontos P. Advice for Medical and Research regarding maintaining a work-life balance.   
Poster   
2016 Nov 17 Collaborator. Quality Reporting of Carotid Intima-media Thickness Methodology: Current State of the Science in the Field of Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Hoskin J, Miyatani M, Craven BC. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Alavinia SM, Craven BC, Flett H, Farahani F, Hitzig SL, Bayley M. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Categories Among Individuals With Chronic SCI. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Nov 17 Collaborator. Perspectives on Personalized Adapted Locomotor Training from Canadian Participants with Sub-acute Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. (Trainee Presentation).   
2014 Dec 1 Collaborator. Trunk Strength and Function in Individuals with Non-Traumatic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Gabison S, Verrier M, Craven BC, Nadeau S, Duclos C, Gagnon D, Roy A. Abstract #52. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Exploring the Associations between Arterial Stiffness and Spinal Cord Impairment. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Szeto M, Moore CD, Oh PI, McGillivray C, Craven BC. Abstract #58. (Trainee Presentation).   
2014 Dec 1 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Laing AC, Frank-Wilson A, Kontulainen SA, Papaioannou A, Adachi JD, Giangregorio LM. Abstract #59. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, Papaioannou A, Thabane L, Craven BC. Abstract #61. (Trainee Presentation).   
2014 Dec 1 Collaborator. Use of diffusion tensor imaging for diagnosing and characterizing complex TBI populations. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Bradbury C, Budsin B, Sharma B, Mikulis D, Corbie J, Hitzig S, Craven BC, Green R. Abstract #78.   
2013 Nov 26 Senior Responsible Author. Metabolic Syndrome (MetS) Risk Factors are Insufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh PI, Craven BC. (Trainee Presentation).   
2013 Nov 26 Senior Responsible Author. Preliminary Face Validity of Target SCIM III Median Values for Prediction of Functional Outcomes after Traumatic SCI. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2013 Nov 26 Senior Responsible Author. Implications of Spinal Cord Injury Research in Life Care Planning. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Hadi S, Craven BC.   
2013 Nov 26 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Jan 25 Senior Responsible Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Current Concepts in Balance, Fitness and Mobility: Perspectives on Intensity in Rehabilitation, University Health Network. Toronto, Ontario, Canada. Presenter(s): Szeto M, Delparte JJ, Giangregorio LM, Popovic MR, Craven BC.   
2012 Nov 23 Principal Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio LM, Popovic MR.   
2012 Nov 23 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Nov 23 Senior Responsible Author. Associations Between Arterial Stiffness & Heart Disease Risk Factors In People with Chronic Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Nov 23 Principal Author. Exploring the Feasibility of Central Recruitment for Subacute SCI Patients. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois LM, Verrier MC.   
2012 Nov 23 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Feb 27 Coauthor. The Development of an On-line Quality of Life Outcomes Tool-Kit for Spinal Cord Injury Professionals. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Panjwani A, Routhier F, Noreau L.   
2012 Feb 27 Senior Responsible Author. Central Recruitment Process: Exploring Feasibility and Scalability for SCI Research Studies. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Verrier MC, Carson JR, Brisbois L, Craven BC.   
Presentation   
2015 May 5 Presenter. Spinal Cord Rehab Program. Toronto, Ontario, Canada. Presenter(s): Zee J, Flett H, Craven, BC. Articulation of the Program and Health Services Needs of a High Reliability Organization.- For UHN CEO Peter Pisters.   
5. INTER PROVINCIAL ONTARIO/QUEBEC   
Consensus Meeting   
2015 Dec 9 Co-Lead (Craven, Gagnon). ONF-REPAR Phase III: SCI Strategic Planning Consensus Meeting. Toronto, Ontario, Canada. Presenter(s): Craven BC, Gagnon D, Jaglal S, Routhier F, Hitzig S, Maltais D, Wolfe D, Athanasopoulous P. Consensus Meeting to articulate the endocrine metabolic disease risk reduction strategy for the ONF-Repar funded Spinal Cord Injury Inter provincial working group.   
6. OTHER   
Presented and Published Abstracts   
2015 Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada?   
  
Publication Details:   
Gagnon D, Verrier MC, Duclos C, Nadeau S, Craven BC. Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada? Arch Phys Med Rehabil. 2015;(2014 Dec17). D-13-00909. Coauthor or Collaborator.   
G. Teaching and Design   
1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION   
2016 Nov - 2016 Nov 1 Creating a Powerful Speaking Style, Postgraduate MD, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation   
H. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 May - 2014 Sep Primary Supervisor. B. Sc. Piramilan Thuraisingam. Supervisee Position: Master of Physical Therapy, Supervisee Institution: University of Western Ontario. Awards: Enrollment in Ross University (Dominica)   
♣ Dr. G. E. Hall Scholarship, The University of Western Ontario   
♣ Queen Elizabeth II Aiming for the Top Scholarship, The University of Western Ontario   
♣ Four Year Continuing Admission Scholarship, The University of Western Ontario   
♣ Dean’s Honor List, The University of Western Ontario. Supervisor(s): Craven BC. Completed 2012.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Paul Wolfe. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Amber Knott. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Primary Supervisor. B. Sc. Zachary Brown. Supervisee Institution: University of Waterloo. RHSCIR.   
2013 Jun - 2015 Jun Primary Supervisor. B. Sc. Eleni Patsakos. Supervisee Institution: University of Toronto. Rick Hansen Spinal Cord Injury Registry (RHSCIR).   
2013 Jun - 2014 Sep Primary Supervisor. B. Sc. Amit Chopra. Supervisee Institution: University of Toronto. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study., Completed 2014.   
2013 Jan - 2014 Apr Co-Supervisor. B. Sc. Jenny Quach. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2012 May - 2012 Aug Primary Supervisor. B. Sc. Claire Tardif. Supervisee Institution: McGill University. Increasing the efficiency and diagnostic yield of lower extremity bone density assessment among patients with neurological impairment: A comparison of new and existing technology. Completed 2012.   
Graduate Education   
2017 Jun - 2020 May Co-Supervisor. PhD. Jawad Christie, Rehabilitation Science, Health Services and Policy Research. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Fractures and Aging in the Chronic Spinal Cord Population. Supervisor(s): Craven BC, Jaglal S.   
2015 Jul - 2017 Jun Primary Supervisor. PhD. Sharon Gabison. Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Assessment of Ischial Tissue Texture. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Verrier M. Collaborator(s): Craven BC.   
2011 Jan - 2012 Dec Primary Supervisor. Postdoctoral Fellow- Mentor-Mentee Training Award. Sander L. Hitzig. Supervisee Position: Senior Research Associate, Supervisee Institution: University of Toronto. Capacity building and economic analysis related to secondary health complications after spinal cord injury. Awards: Ontario Neurotrauma Foundation (ONF) Mentor-Mentee Training Award. Collaborator(s): Mittmann N. Completed 2012.   
Postgraduate MD   
2015 Jul - present Primary Supervisor. Core Program Physiatry. Rebecca Titman. Supervisee Position: PGY2 Physiatry Resident, Supervisee Institution: University of Toronto. Screening for mood disorders during inpatient spinal cord injury rehabilitation.   
2013 Dec - 2014 Apr Primary Supervisor. Clinical Fellow. Rohit Bhide. Supervisee Position: Clinical Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Impact of Service Interruptions on Inpatient Length of Stay.   
2011 Jul - 2016 Jun Primary Supervisor. Core Program Physiatry. Sivakumar Gulasingam. Supervisee Position: PGY5 Physiatry Resident, Supervisee Institution: University of Toronto. Clinical Utility of Botulinum Neurotoxin A (BoNTA) Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesicular BoNTA for Neurogenic Detrusor Overactivity. Collaborator(s): Hassouna M.   
Postdoctoral Research Fellow (PhD)   
2017 Jan - 2019 Dec Primary Supervisor. Year I. Brian Chan. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Economic Evaluation of Secondary Health Conditions and New Technology. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Craven BC, Woodchis W.   
2015 Nov - 2017 Oct Primary Supervisor. Year I. Tomas Cervinka. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. P-QCT, Bone Quality and Neurological Impairment. Awards: Spinal Cord Injury Ontario Fellowship   
Osteoporosis Canada Tim Murray Training Award (1500 CAD)   
Canadian Musculoskeletal Conference Young Investigators Day Poster Competition (100 CAD).   
2015 Jul - 2017 Jun Primary Supervisor. Year I. Mohammad Alavinia. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Rehab Care Indicators. Supervisor(s): M Bayley.   
2013 Oct - 2014 Oct Primary Supervisor. Chelsea Pelletier. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Body Composition in Spinal Cord Injury and Related Multimorbidity.   
2013 Oct - 2014 Oct Primary Supervisor. Sander Hitzig. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute.   
2012 Jan - 2014 Apr Primary Supervisor. Masae Miyatani. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Novel Protocol for Detection of Asymptomatic Heart Disease After Spinal Cord Injury. Awards: Craig H. Neilsen Foundation Postdoctoral Fellowship (2012-2014) $135,000 (US).   
Clinical Research Fellow (MD)   
2015 Jul - 2016 Jun Primary Supervisor. PGY7. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - Rumsey & Lyndhurst Sites of TRI’ Sunnybrook. Awards: November 2015 ORT Conference Travel Awards Program   
April 2016 American Academy of Neurology Travel Award   
May 2016 64th Annual CAPMR Meeting: 2nd Place Case Report Category   
June 2016 Wings for Life Foundation Fellowship. Supervisor(s): Craven BC Collaborator(s): Robinson L, Bruno T.   
2014 Sep - 2015 Jul Co-Supervisor. PGY6. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - TWH and Toronto Rehabilitation Institute; Sunnybrook. Supervisor(s): Craven BC, Tang-Wai D.   
2. OTHER SUPERVISION   
Graduate Education   
Thesis Committee Member   
2009 Jul - present PhD. Andresa Marinho, Rehabilitation Science. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Aquatic Body Weight Support as a Novel Approach for Gait Training after Incomplete Spinal Cord Injury (SCI). Awards: CIHR-Vanier Canada Graduate Scholarship Program ($50,000 annum). Collaborator(s): Verrier MM, Popovic MR, McIlroy W, Masani K.   
2017 Jun - 2019 May MSc. John Shepherd. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Approaches to Using Primary Care EMR Data to Study Community - Living Persons with Spinal Cord Injury in Canada. Collaborator(s): Moineddin, R, Tu K.   
2017 Jan - 2020 Jan PhD. Janelle Unger, Rehabilitation Science, Rehabilitation Sciences Institute. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Balance Training for people with Spinal Cord Injury. Supervisor(s): Musselman K. Collaborator(s): Craven BC, Mansfield A.   
2016 Dec - 2019 Dec PhD. Hardeep Singh. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Administrator and Allied Health Prospective on Falls in SCI Rehabilitation. Supervisor(s): Musselman KE. Collaborator(s): Silver M, Craven BC, Jaglal S.   
2015 Sep - 2018 May PhD. Rasha El-Kotob. Supervisee Institution: University of Waterloo. TBD. Supervisor(s): Giangregorio L, Craven BC.   
2015 Jan - 2017 Dec PhD. Gayathiri Jeyathevan, Health Policy, Management and Evaluation. Supervisee Institution: University of Toronto. Awards: Craig H. Neilson Foundation. Supervisor(s): Susan Jaglal. Collaborator(s): Craven BC, Cameron J.   
2015 Jan - 2017 Jun PhD. Teresa Valenzano, Rehabilitation Science. Supervisee Institution: University of Toronto. Respiratory Impairment and Swallowing Dysfunction in Spinal Disorders Research Proposal. Supervisor(s): Catriona Steele. Collaborator(s): Brooks D, Craven BC.   
2013 Jan - 2015 Jan MSc. Rasha El-Kotob. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Assessing Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Spinal Cord Injury. Collaborator(s): Verrier M, Oh P, Ditor D, Mathur S.   
2012 Jan - 2014 May MSc. Cameron Moore. Supervisee Institution: University of Waterloo/ Department of Kinesiology. Muscle Quantity and Quality after Chronic Spinal Cord Injury: An Investigation of Calf- Muscle Cross-Sectional Area and Density After Long Term Paralysis. Awards: Queen Elizabeth II -Graduate Scholarship in Science and Technology   
Awarded January 2013   
  
NET Team Excellence Award 2013, Toronto Rehab’s 9th Annual Research Day   
Awarded November 2013. Collaborator(s): Giangregorio LM, Laing A. Completed 2014.   
2009 Jul - 2012 Feb MSc. Kristina Guy. Supervisee Position: Professional Practice Leader Physiotherapy, Supervisee Institution: Toronto Rehabiliation Institute - UHN, Brain and Spinal Cord Program. Clinical Measures of Walking Ability using the Gait Rite in Motor Incomplete SCI. Awards: Masters. Collaborator(s): Verrier MC, Popovic MR, McIlroy W. Completed 2012.   
2008 Jul - 2012 May PhD. Sara Guilcher. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael’s Hospital. An Investigation of the Journey of Care Related to Secondary Health Conditions for Community-Dwelling Persons with Spinal Cord Injury. Awards: Ontario Student Opportunity Trust Funds 2006-2007 $13,000   
Ontario Training Collaborative Program in Health service and Policy Research 2007-2009 ($13,000)   
Graduate studentships in Health Services Research and Spinal Cord Ontario Neurotrauma Foundation 2007-2011 ($10,000/year renewable)   
Enid Walker Award Women’s College Research Institute 2007-2011 ($25,000/year renewable)   
Social Sciences and Humanities Research Council of Canada 2010 Community Research Alliamce ($10,000). Collaborator(s): Jaglal SB, Lemieux-Charles L, McColl MA, Casciaro T. Completed 2012.   
Ad Hoc Advisor   
2009 Jul - 2012 Jul PhD. Arif Jetha. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Employment in Kids with Disabilities.   
Postgraduate MD   
Resident Research Supervisor   
2010 - present Core Program Physiatry. Amanda Mayo. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Fractures among Boys with Duchenne Muscular Dystrophy: Frequency, Skeletal Distribution and Association(s) with Steroid Therapy and Bone Mass. Collaborator(s): Biggar D, McAdam L.   
2014 Nov - 2014 Dec Core Program PGY4 Physiatry. Sivakumar Gulasingam. Supervisee Position: Physiatrist, Supervisee Institution: UHN-Toronto Rehab. Botulinum Neuorotoxin a - Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesical Botulinum Neurotoxin A for Neurogenic Detrusor Overactivity. Supervisor(s): Craven BC. Collaborator(s): Hassouna M, Carr L. Completed 2014.   
2012 Apr - 2014 Oct Core Program Physiatry. Christian Fortin. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Rehabilitation outcomes of patients with metastatic extradural spinal cord compression. Collaborator(s): Jaglal SB, Voth J. Completed 2014.   
2011 - 2014 Oct Core Program Physiatry. Derry Dance. Supervisee Position: PGY5 Physiatry Resident. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Collaborator(s): Ditor D, Hassouna M, Campbell K. Completed 2014.   
Postdoctoral Research Fellow (PhD)   
Secondary Supervisor   
2013 Dec - 2015 Jan Year I. Cheryl Lynch. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University of Waterloo/UHN-Toronto Rehabilitation Institute. Limitation of CAROC and FRAX for predicting fracture after SCI. Supervisor(s): LM Giangregorio. Collaborator(s): M Popovic.

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**Case Reports**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Rishi Pathak, MD***  
Kennedy Krieger Institute

**CV:**  
Rishi Pathak M.D.   
  
10 Headley Court Denville, NJ 07834   
  
Cell phone: (631) 278-0036   
  
E-mail: rishipathakmd@gmail.com, rpathak@dmc.org   
  
  
Objective: To find an institution dedicated to the treatment and management of sports related injury amongst all age groups and activity levels   
  
  
Hospital or Other Professional Appointments:   
  
  
Wayne State University/Detroit Medical Center/Rehabilitation Institute of Michigan/PM&R   
  
2015(August) - Current Detroit, MI   
  
  
Exempla St. Joseph Hospital (General Surgery Internship) Denver, CO   
  
2013 (June) - 2014 (July)   
  
  
St. Joseph’s College Patchogue, NY   
  
2006-2008   
  
Teacher’s Assistant   
  
•Graded laboratory reports, tests, and quizzes   
  
  
•Directed student tours and held review sessions   
  
  
•Taught and introduced every experiment   
  
  
•Monitored laboratory practice, safety, & procedure   
  
  
  
Endo Pharmaceuticals Westbury, NY   
  
2003-2008   
  
Contractor   
  
•Archived and filed training records and other regulated documents/files   
  
  
•Assisted other Documentation Associates in everyday Quality Assurance activities   
  
  
•Created and maintained F.D.A. regulated databases   
  
  
•Sent and received documents for processing, review, and comment resolution   
  
  
•Created New electronic document tracking management system   
  
  
•Managed and migrated all hard copy documents into an electronic Document Management System   
  
  
  
Education:   
  
  
2015-Current DMC/Wayne St. University PM&R Resident   
  
2013-2014 St. Joseph’s Hospital Exempla Health, General Surgery Preliminary PGY 1   
  
2009-2012 St. Matthews University School of Medicine   
  
2004-2008 St. Joseph’s College Completed Bachelors of Science in Biology - St. Joseph’s College,   
  
  
Techniques Learned:   
  
•Karyotyping & DNA analysis, Pure culturing technique for cells, Spectrophotometry, Variety or microbiology staining techniques, Gene testing, PCR to extract/analyze DNA, Blotting technique (Northern, Southern, Western).   
  
  
•Peripheral Ultrasound Guided Bursal/Tendon Sheath/Joint Injections   
  
  
•MBB’s, RFA’s, Lumbar/Cervical Epidurals, Caudal epiduralysis   
  
  
•E-Stim/EMG Guided Botulinum Injectons (Pediatric/Adult)   
  
  
•EMG/NCS (Pediatric/Adult)   
  
  
•OMPT Kinesio Taping   
  
  
•Baclofen Pump Trials/Pump Refills   
  
  
  
Research Experience (Undergraduate):   
  
•Clinical/Laboratory testing of a non toxic chemotherapy drug focusing the effects it   
  
  
-has on Grade IV Glioblastoma Multiforme,Breast Cancer, and Pancreatic cancer   
  
  
Abstracts:   
  
  
Marked Improvement Upon Initiation of IVIG in an Adolescent with Morvan’s Syndrome: A Case Report.   
  
Harmony Sierens M.D. Rishi Pathak, M.D., Elizabeth Chan, MS IV   
  
Department of Physical Medicine and Rehabilitation   
  
Childrens Hospital of Michigan, Detroit, MI   
  
Key words: Morvan’s syndrome, Morvan’s fibrillary chorea, IVIG, Limbic Encephalopathy   
  
  
Contralateral Prophylactic IM Nailing in Severe Osteopenia presenting with Fragility Fracture   
  
Dr. Pano Papalekas M.D, Dr. Rishi Pathak M.D.   
  
Department of Physical Medicine and Rehabilitation   
  
Rehabilitation Institute of Michigan, Detroit MI   
  
Key words: Low impact trauma resulting in hip fracture, IM nailing, diffuse osteopenia   
  
  
Research Projects (Online Publication):   
  
  
PM&R Knowledge Now:   
  
Co-Author to Dr. Lawrence J.Horn, “Sexual Dysfunction In Acquired Traumatic Brain Injury” 06/07/2013   
  
  
Grand Rounds:   
  
  
“Cancer Rehabilitation” Division of Karmanos Cancer Center, Wayne State University, Rehabilitation Institute of Michigan   
  
  
“Contralateral Prophylactic IM Nailing in Severe Osteopenia presenting with Fragility   
  
Fractureprophylactic cephalomedullary nailing, fragility fracture, physical therapy”   
  
  
“Marked Improvement Upon Initiation of IVIG in an Adolescent with Morvan’s Syndrome”   
  
  
Administrative Positions:   
  
•Code Blue Committee, WSU/DMC/RIM   
  
  
•Infectious Disease Committee, WSU/DMC/RIM   
  
  
•FIM Quality Improvement Committee WSU/DMC/RIM   
  
  
•Patient Safety Committee, WSU/DMC/RIM   
  
  
•Program Improvement Committee WSU/DMC/RIM   
  
  
•Clinical Advisor for health professions Alumni Mentor, St. Josephs College   
  
  
•Clinical Instructor for WSU Ultrasound   
  
  
  
Certifications:   
  
•USMLE Step I, II CK/CS, III 2009-2012   
  
  
•Basic Life Support/ACLS by the American Heart Association 2013-2016   
  
  
•Fundamentals of Critical Care, American Surgical Society 2013-current   
  
  
  
Honors/Awards/Professional Societies:   
  
•National Biological Society Honor Society Tri Beta 2007   
  
  
•Dean’s List St. Josephs College 2006-’09   
  
  
•Theodore K. Steele Memorial Scholarship 2003   
  
  
•AMA 2012-Current   
  
  
•AAP 2013-Current   
  
  
•AAPM&R 2013-Current   
  
  
•ACSM 2015-Current   
  
  
•ASCIP 2013-Current   
  
  
  
Volunteer/Extra Curricular Activities (Undergraduate-Current):   
  
•Tutoring underclassmen in a variety of subjects Spanish, chemistry (organic/inorganic), genetics, physiology, introductory biology, ecology, botany, and cellular biology (St. Josephs College and St. Matthews University)   
  
  
•St. Joseph’s College graduate medical education mentor for undergraduate students   
  
  
•TBI/Concussion Awareness Speaker at surrounding Middle/High Schools   
  
  
•Medical Staff for “Slice of Life” Annual Stroke Survivor Camp   
  
  
•Medical Staff at the Annual Rehabilitation Institute Sortsability Wheelchair Basketball Tournament   
  
  
•Medical Staff Annual Michigan Sports Unlimited/Adaptive Sports USA “Thunder in the Valley for Disabled Athletes,” Saginaw, MI   
  
  
•Medical Staff R.I.M Foundation Annual Awards ceremony   
  
  
•Medical Staff Detroit Adaptive Wheelchair Bowling League   
  
  
•Medical Staff DMC Wheelchair Ballroom Dancing   
  
  
•Perform Annual Sports Physicals for local High school Athletes without access to medical care   
  
  
  
Interests:   
  
•Cooking, Traveling, Playing/watching all sports, Hiking, Snowboarding, Carpentry, Reading, Volunteering, participating in dance competitions, Music, Playing the tabla, fly fishing, scuba diving.

***Rishi Pathak, MD***  
Kennedy Krieger Institute

**CV:**  
  
Rishi Pathak M.D.   
  
10 Headley Court Denville, NJ 07834   
  
Cell phone: (631) 278-0036   
  
E-mail: rishipathakmd@gmail.com, rpathak@dmc.org   
  
  
Objective: To find an institution dedicated to the treatment and management of sports related injury amongst all age groups and activity levels   
  
  
Hospital or Other Professional Appointments:   
  
  
Wayne State University/Detroit Medical Center/Rehabilitation Institute of Michigan/PM&R   
  
2015(August) - Current Detroit, MI   
  
  
Exempla St. Joseph Hospital (General Surgery Internship) Denver, CO   
  
2013 (June) - 2014 (July)   
  
  
St. Joseph’s College Patchogue, NY   
  
2006-2008   
  
Teacher’s Assistant   
  
•Graded laboratory reports, tests, and quizzes   
  
  
•Directed student tours and held review sessions   
  
  
•Taught and introduced every experiment   
  
  
•Monitored laboratory practice, safety, & procedure   
  
  
  
Endo Pharmaceuticals Westbury, NY   
  
2003-2008   
  
Contractor   
  
•Archived and filed training records and other regulated documents/files   
  
  
•Assisted other Documentation Associates in everyday Quality Assurance activities   
  
  
•Created and maintained F.D.A. regulated databases   
  
  
•Sent and received documents for processing, review, and comment resolution   
  
  
•Created New electronic document tracking management system   
  
  
•Managed and migrated all hard copy documents into an electronic Document Management System   
  
  
  
Education:   
  
  
2015-Current DMC/Wayne St. University PM&R Resident   
  
2013-2014 St. Joseph’s Hospital Exempla Health, General Surgery Preliminary PGY 1   
  
2009-2012 St. Matthews University School of Medicine   
  
2004-2008 St. Joseph’s College Completed Bachelors of Science in Biology - St. Joseph’s College,   
  
  
Techniques Learned:   
  
•Karyotyping & DNA analysis, Pure culturing technique for cells, Spectrophotometry, Variety or microbiology staining techniques, Gene testing, PCR to extract/analyze DNA, Blotting technique (Northern, Southern, Western).   
  
  
•Peripheral Ultrasound Guided Bursal/Tendon Sheath/Joint Injections   
  
  
•MBB’s, RFA’s, Lumbar/Cervical Epidurals, Caudal epiduralysis   
  
  
•E-Stim/EMG Guided Botulinum Injectons (Pediatric/Adult)   
  
  
•EMG/NCS (Pediatric/Adult)   
  
  
•OMPT Kinesio Taping   
  
  
•Baclofen Pump Trials/Pump Refills   
  
  
  
Research Experience (Undergraduate):   
  
•Clinical/Laboratory testing of a non toxic chemotherapy drug focusing the effects it   
  
  
-has on Grade IV Glioblastoma Multiforme,Breast Cancer, and Pancreatic cancer   
  
  
Abstracts:   
  
  
Marked Improvement Upon Initiation of IVIG in an Adolescent with Morvan’s Syndrome: A Case Report.   
  
Harmony Sierens M.D. Rishi Pathak, M.D., Elizabeth Chan, MS IV   
  
Department of Physical Medicine and Rehabilitation   
  
Childrens Hospital of Michigan, Detroit, MI   
  
Key words: Morvan’s syndrome, Morvan’s fibrillary chorea, IVIG, Limbic Encephalopathy   
  
  
Contralateral Prophylactic IM Nailing in Severe Osteopenia presenting with Fragility Fracture   
  
Dr. Pano Papalekas M.D, Dr. Rishi Pathak M.D.   
  
Department of Physical Medicine and Rehabilitation   
  
Rehabilitation Institute of Michigan, Detroit MI   
  
Key words: Low impact trauma resulting in hip fracture, IM nailing, diffuse osteopenia   
  
  
Research Projects (Online Publication):   
  
  
PM&R Knowledge Now:   
  
Co-Author to Dr. Lawrence J.Horn, “Sexual Dysfunction In Acquired Traumatic Brain Injury” 06/07/2013   
  
  
Grand Rounds:   
  
  
“Cancer Rehabilitation” Division of Karmanos Cancer Center, Wayne State University, Rehabilitation Institute of Michigan   
  
  
“Contralateral Prophylactic IM Nailing in Severe Osteopenia presenting with Fragility   
  
Fractureprophylactic cephalomedullary nailing, fragility fracture, physical therapy”   
  
  
“Marked Improvement Upon Initiation of IVIG in an Adolescent with Morvan’s Syndrome”   
  
  
Administrative Positions:   
  
•Code Blue Committee, WSU/DMC/RIM   
  
  
•Infectious Disease Committee, WSU/DMC/RIM   
  
  
•FIM Quality Improvement Committee WSU/DMC/RIM   
  
  
•Patient Safety Committee, WSU/DMC/RIM   
  
  
•Program Improvement Committee WSU/DMC/RIM   
  
  
•Clinical Advisor for health professions Alumni Mentor, St. Josephs College   
  
  
•Clinical Instructor for WSU Ultrasound   
  
  
  
Certifications:   
  
•USMLE Step I, II CK/CS, III 2009-2012   
  
  
•Basic Life Support/ACLS by the American Heart Association 2013-2016   
  
  
•Fundamentals of Critical Care, American Surgical Society 2013-current   
  
  
  
Honors/Awards/Professional Societies:   
  
•National Biological Society Honor Society Tri Beta 2007   
  
  
•Dean’s List St. Josephs College 2006-’09   
  
  
•Theodore K. Steele Memorial Scholarship 2003   
  
  
•AMA 2012-Current   
  
  
•AAP 2013-Current   
  
  
•AAPM&R 2013-Current   
  
  
•ACSM 2015-Current   
  
  
•ASCIP 2013-Current   
  
  
  
Volunteer/Extra Curricular Activities (Undergraduate-Current):   
  
•Tutoring underclassmen in a variety of subjects Spanish, chemistry (organic/inorganic), genetics, physiology, introductory biology, ecology, botany, and cellular biology (St. Josephs College and St. Matthews University)   
  
  
•St. Joseph’s College graduate medical education mentor for undergraduate students   
  
  
•TBI/Concussion Awareness Speaker at surrounding Middle/High Schools   
  
  
•Medical Staff for “Slice of Life” Annual Stroke Survivor Camp   
  
  
•Medical Staff at the Annual Rehabilitation Institute Sortsability Wheelchair Basketball Tournament   
  
  
•Medical Staff Annual Michigan Sports Unlimited/Adaptive Sports USA “Thunder in the Valley for Disabled Athletes,” Saginaw, MI   
  
  
•Medical Staff R.I.M Foundation Annual Awards ceremony   
  
  
•Medical Staff Detroit Adaptive Wheelchair Bowling League   
  
  
•Medical Staff DMC Wheelchair Ballroom Dancing   
  
  
•Perform Annual Sports Physicals for local High school Athletes without access to medical care   
  
  
  
Interests:   
  
•Cooking, Traveling, Playing/watching all sports, Hiking, Snowboarding, Carpentry, Reading, Volunteering, participating in dance competitions, Music, Playing the tabla, fly fishing, scuba diving.

***Nicholas Dabai, DO***  
The Johns Hopkins University School of Medicine

**CV:**  
WORK EXPERIENCE   
  
Genentech, Inc. 2010-2011 Drug Substance Manufacturing Science and Technology Intern South San Francisco, CA   
  
The Buddy SystemChemistry and Biology Tutor 2010-2011   
San Francisco, CA   
  
Graduate Research Assistant Vitamin D and Bone Laboratory- Boston University 2008-2010   
  
Genentech, Inc. 2004-2007 Lead Bioprocess Technician South San Francisco, CA   
  
Green Street Market 1998-2001 Summer Assistant Deli Manager San Francisco, CA   
  
JOURNAL PUBLICATIONS AND POSTERS   
  
Dabai NS, Pramyothin P, Holick MF. The effect of ultraviolet radiation from a novel portable fluorescent lamp on serum 25-hydroxyvitamin D3 levels in healthy adults with Fitzpatrick skin types II and III. Photodermatol Photoimmunol Photomed. 2012 Dec; 28(6):307-11.   
  
Pramyothin P, Dabai NS, Holick MF. Effects of Skin Type on Serum 25(OH)vitamin D Response to Ultraviolet Irradiation. The Endocrine Society's 93rd Annual Meeting & Expo, Boston, MA. 2011.   
  
VOLUNTEER EXPERIENCE   
  
University of New England College of Medicine Curriculum Revision Team, 2012-2013   
  
Boston University School of Medicine Graduate Tutor (physiology, endocrinology, histology), 2010-2011   
  
Boston University Student Outreach Project to Feed Homeless, 2009-2011 Research Projects   
  
Quality Improvement Project: Development and Initiation of an   
Opioid Overdose Prevention Program on an Acute Inpatient Rehabilitation Unit.   
  
YMCA Biddeford Maine Blood Pressure Clinic Volunteer, 2011-2012 University of New England New Student Orientation Counselor, 2012   
  
University of New England Medical Student for a Day Counselor for High School Students, Summer 2012   
  
Efficacy of Steroid Injections for Treating Lower Extremity Pain   
Quality Improvement Project: Developing a pre-admission process for outside hospital admission to JHH and BMC Inpatient Rehabilitation Unit.

***Albert Recio, MD, RPT, PTRP***  
The Johns Hopkins University School of Medicine, the International Center for Spinal Cord Injury at Kennedy Krieger Institute

**CV:**  
Positions and Employment   
  
1990-1993 Licensed Physical Therapist, Sarah Bush Lincoln Health Center, Mattoon, Illinois   
  
1994-1995 Faculty Instructor, Perpetual Help Institute of Rehabilitation Medicine, Republic of the Philippines   
  
1993-2006 Recruiter: Registered Nurses, PT’s and OT’s, Global Professional Healthcare Providers, Inc., Chicago, Illinois   
  
1997-1998 Post-Graduate Internship Training, Perpetual Help Medical Center, Republic of the Philippines   
  
2002-2003 Post-Graduate Internship Training, Family Practice, Jackson Park Hospital and Medical Center, Chicago, Illinois   
  
2007-present Assistant Professor, Department of Physical Medicine & Rehabilitation, Johns Hopkins University School of Medicine, The International Center for Spinal Cord Injury at Kennedy Krieger Institute   
  
2009-present Medical Director, Aquatherapy Program, International Center for Spinal Cord Injury at Kennedy Krieger Institute   
  
Institutional Administrative Appointments   
  
1994-2001 Chairman of PHCL - Stroke Support Group   
  
1997-present Volunteer Physician for Medical Missions, Republic of the Philippines   
  
2003-2006 Contributing Editor to Rehabilitation and Review, Harvard Medical School – Spaulding Rehab Hospital   
  
2004-2006 PM&R Residents representative to Meditech – CPOE Training Board   
  
2005-present Contributing Editor to Pain Rounds Website   
  
2008 Clinical Scientific Peer Reviewer, New York State Spinal Cord Injury Research Board   
  
Honors: Medicine   
  
1993-1997 Academic Scholar, School of Medicine Perpetual Help College of Medicine   
  
1995 Best Cultural Presentation, Asian Medical Students’ Conference, Hong Kong   
  
1995 Best Paper Presentation, Asian Medical Students’ Conference, Hong Kong   
  
1997 Department of Education, Culture & Sports-Award for Excellence   
  
1997 Perpetual Help Medical Center Loyalty Award   
  
1997 Dean’s Gold Medal Award   
  
1997 Community Service Award   
  
1997 Josefina Laperal Tamayo Award for Excellence   
  
1997 First Honor, Cum Laude   
  
2005 Best Paper Presentation 3rd World Congress - International Society of Physical Rehabilitation Medicine, Sao Paolo, Brazil   
  
2008-2011 Patient’s Choice Award, American Registry   
  
2009 Sacred Heart College Most Outstanding Alumni   
  
2010 America’s Top Physicians, Consumers Research Council of America   
  
2011 Most Compassionate Doctor, American Registry   
  
2012 America’s Top Physicians, Consumers Research Council of America   
  
2013-2014 Best Doctors in America   
  
2014 Leader in Spinal Cord Injury Care, International Center for Spinal Cord Injury   
  
2015 America’s Top Physician   
  
Selected Peer-Reviewed Publications   
  
1. Recio A, Camacho A. Effects of Pito-Pito Consumption on Fasting Blood Glucose Among Healthy and Diabetic Subjects. Perpetual Help Medicine Research Journal of Medicine. 1997; 11-19   
  
2. Burke D, Recio A, Al-Adawi S, Dorvlo A. S.S. Post-Stroke Depression: Medication and Rehabilitation, Spaulding Rehab Hospital. 3rd World Congress of the International Society of Physical and Rehabilitation Medicine- ISPRM; Medimond S.r.l.- Bologna, Italy. 2005; 7-11   
  
3. Recio A, Becker D, Morgan M, Saunders N, Schramm L, McDonald JW. Use of a Virtual Reality Physical Ride-On Simulator as a Rehabilitation Tool for Recreational Sports and Community Reintegration. American Journal of Physical Medicine & Rehabilitation. 2013; 92(12):1104-1109.   
  
4. Hammond E, Recio A, Sadowsky C, Becker D. Functional electrical stimulation as a component of activity-based restorative therapy may preserve function in persons with multiple sclerosis. The Journal of Spinal Cord Medicine. 2015; 38(1):68-75.   
  
5. Dolbow D, Gorgey A, Recio A, McDonald J, Curry A, Martin R, Sadowsky C, Gater D, Stiens S. Activity-Based Restorative Therapies after Spinal Cord Injury: Inter-institutional conceptions and perception. Aging and Disease. 2015; 6(4):254-261.   
  
6. Recio A, Felter CE, Allen NC, Alana, Crane DA, Stiens SA. Transfemoral Amputation Following Chronic Spinal Cord Injury: A Prosthetic Solution for Improved Balance, Seating, Dynamic Function and Body Image. Journal of Spine. 2014; 4(1):195.   
  
Case Reports   
  
1. Recio AC, Bohart ZW, Havens SR, Stiens SA. Acute Spinal Cord Injury and Infection with Multi-Drug Resistant Acinetobacter Calcoaceticus – Baumannii Complex Among Returning Operation Iraqi Freedom (OIF) Soldiers: Successful Innovations in Rehabilitation during Isolation. American Journal of Physical Medicine and Rehabilitation. 2010; 89(4):331-335   
  
2. Recio A, Sachs C, Felter C, Obst K. Movement Restored Using Aquatics for Physical and Psychological Restoration. Advance for Physical Therapy and Rehab Medicine. 2010; 21(24):23   
  
3. Recio AC, Felter CE, Schneider AC, McDonald JW. High-voltage electrical stimulation for the management of Stage III & IV pressure ulcers among adults with spinal cord injury: Demonstration of its utility for recalcitrant wounds below the level of injury. The Journal of Spinal Cord Medicine. 2012; 35(1):58-63   
  
4. Obst K, White L, Sachs C, Recio A. Osteoporosis and Aquatic Therapy: Use the aquatic environment to balance safety with intensive therapies Use the aquatic environment to balance safety with intensive therapies. Advance for Physical Therapy and Rehab Medicine. 2013; 23(3):22.   
  
Research Support   
Current Research Support   
  
140306/000000049; Patient-Centered Outcomes Research Institute (Greenberg) 09/01/13 to 09/30/17   
Collaborative Assessment of Pediatric Transverse Myelitis: Understand, Reveal, Educate (CAPTURE) Study   
Role: Sub-site Principal Investigator   
It will assess the current state of Pediatric TM in terms of diagnosis, treatment and outcomes. Ultimately, it will lead to an improved understanding of the current status of care for individuals afflicted with TM, and reveal what are the current best practices. Patients will educate clinicians and the study will educate the broader healthcare system about what outcomes are important and achievable. It will develop a multi-metric outcome measure, based on combined patient-generated and provider-generated data that can be used in future controlled trials. Of critical significance is the specific aim to make the data available for use by patients and practitioners via a Web-based program to determine how comparable their specific case is to the studied population. Unlike other clinical research endeavors that report findings primarily in peer-reviewed publications or presentations, this study will provide its data to a controlled program that can be accessed while a patient is being evaluated for TM, to determine if the data exists to guide decision making for that individual patient.   
  
Recently Completed Support (Past Three Years)   
  
710; Paralyzed Veterans Administration, Education Foundation (Martin) 06/01/13-05/31/14   
Activity-Based Restorative Therapy through Multi-Modal Training   
Research-based interventions using high intensity practice and repetition have shown promise in helping patients restore function lost to spinal cord injury. Despite this evidence, most centers continue with traditional therapy focused on compensatory strategies. Our Activity-Based Restorative Therapy (ABRT) program uses a combination of rehabilitation techniques to provide near-normal input above and below the level of the lesion to both optimize the nervous system for recovery and offset the rapid aging and chronic complications that patients with SCI incur. This grant will allow us to build our ABRT curriculum and methods for dissemination, including onsite workshops and online learning modules, to help other clinics improve the quality of care they provide for patients living with neurological insult.   
Role: Co-Principal Investigator   
  
Contract W81XWH-10-2-0182; USAMRMC/USAMRAA (McDonald) 09/30/10-09/29/13   
Contract W81XWH-09-2-0186 CLIN0001; USAMRMC/USAMRAA (McDonald) 09/28/09-11/30/13   
Advanced Therapies in Spinal Cord Injury   
This work tests the efficacy of FES-based restorative therapies in promoting neurological and functional recovery in patients with SCI. The integrative approach will facilitate the discovery of recovery mechanisms in cell culture and animal models, while using MRI will better correlate anatomical indices of regeneration with standard clinical assessments. These findings will be applied in a clinical setting to optimize the FES-based therapies. Finally, we will expand and refine our ABRT training program for rehabilitation professionals in order to disseminate findings and our clinical practices to centers across the country so that these therapeutic approaches can be better understood and applied to patients. This work will therefore facilitate the recovery of patients with SCI at centers throughout the United States.   
Role: Co-Investigator, Aim 5.

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**Indoor rock climbing after spinal cord injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Elissa Zakrasek, MD***  
Palo Alto Va

**CV:**  
Elissa Charlotte Zakrasek   
(née Elissa Charlotte Briggs)   
elissa.zakrasek@gmail.com   
  
Education & Post-Graduate Training   
Stanford University, Palo Alto, CA 2016 – 2017   
Spinal Cord Injury Medicine Fellowship   
  
Stanford University, Palo Alto, CA 2013 – 2016   
Physical Medicine and Rehabilitation Residency   
  
Brigham and Women’s Hospital, Boston, MA 2012 – 2013   
Internship: Internal Medicine, preliminary year   
  
University of California Davis School of Medicine, Sacramento, CA 2007 – 2012   
M.D., AOA, class rank #1/111   
  
Brown University, Providence, RI 2002 – 2006   
B.A., Magna Cum Laude, Phi Beta Kappa   
Dual Major: Biology (with Honors), French Civilization   
GPA: 4.0/4.0   
  
Work & Volunteer Experience   
Adapted Climbing Program, Palo Alto VA (Ongoing)   
Program conception, grant writing, implementation with recreational therapy dept.   
  
Sports Medicine Sideline Coverage and Pre-Participation Physicals Volunteer (2014 – 2015)   
St. Moritz ice-skating competition, Sacramento disability children’s swim camp, Notre Dame de Nemur, Placerville adapted climbing camp   
  
Arbor Free Clinic Volunteer, Menlo Park, CA (2014 – 2015)   
  
Research Assistant, Oregon Health and Science University (2010)   
Study coordinator for four clinical research studies for the OHSU Cystic Fibrosis Center.   
  
Medical Assistant, Eastern Iowa Heart Clinic, Iowa City, IA (2006 – 2007)   
  
Biology Teaching Assistant, Brown University (2005)   
Animal Behavior, Cell and Molecular Biology   
  
Awards   
UC Davis School of Medicine Medal (2012)   
A $1,500 merit-based honor awarded to one medical school graduate “who best exhibits the qualities of leadership, scholarship and respect for human life.”   
  
UC Davis Department of PM&R: Senior award (2012)   
Awarded to one 4th year medical student.   
  
Daniel Terry, M.D. and Virginia Terry Endowed Scholarship Award (2009)   
A $10,000 merit-based scholarship awarded to a single third year medical student in recognition of “being a well-rounded, high achieving medical student with strong academic performance.”   
  
Publications & Presentations   
Zakrasek E, Nielson J, Kosarchuk J, Crew J, Ferguson A, McKenna S. “Pulmonary outcomes following specialized respiratory management for acute cervical spinal cord injury: a retrospective analysis.” Spinal Cord. 2017 Feb 21. doi: 10.1038/sc.2017.10. [Epub ahead of print]   
  
Zakrasek E, Creasey G, Crew J. “Pressure ulcers in people with spinal cord injury in developing nations.”   
Spinal Cord. 2015; 53 (1): 7-13.   
  
Briggs E, Nguyen T, Wall M, Macdonald K. “Oral Antimicrobial Use in Outpatient Cystic Fibrosis Pulmonary Exacerbation Management; a Single Center Experience.” Clinical Respiratory Journal. 2012; 6 (1), 56-64.   
  
Briggs E, Wessel G. “In the beginning… Animal fertilization and sea urchin development.” Developmental Biology. 2006; 300, 15-26.   
  
Poster Presentations:   
American Spinal Cord Injury Association Annual Meeting – Albuquerque (April 2017)   
Zakrasek E, Crew J, Elliott C. “Characterizing Urinary Tract Infections During Acute Rehabilitation.”   
  
International Spinal Cord Society Annual Meeting – Vienna, Austria (September 2016)   
Zakrasek E. “Rock Climbing After Spinal Cord Injury.”   
  
American Spinal Cord Injury Association Annual Meeting – Philadelphia (April 2016)   
Zakrasek E, Crew J, Elliott C. “Should All Patients Transitioning from Indwelling Catheters to Intermittent Catheterization Receive Antibiotic Prophylaxis?”   
  
Zakrasek E, Kosarchuk J, Crew J, McKenna S. “Ventilator Weaning in High Cervical Spinal Cord Injury: A Retrospective Review.”   
  
Nielson J, Kosarchuk J, Zakrasek E, Crew J, Ferguson A, McKenna, S. “A Principal Component Analysis of Theophylline Use for Ventilator Weaning in Patients with High Cervical Spinal Cord Injury.”   
  
International Spinal Cord Society Annual Meeting – Istanbul, Turkey (October 2013)   
Zakrasek E, Creasey G, Crew J. “The Prevalence of Pressure Ulcers as a Chronic Complication of Spinal Cord Injury in the Developing World.”   
  
American Medical Society for Sports Medicine Conference - San Diego, CA (April 2013)   
Zakrasek E, Cassaza G, Waite B. “Understanding and improving awareness of the Female Athlete Triad in California high school running programs.”   
  
North American Cystic Fibrosis Conference - Anaheim, CA (Nov 2011):   
Wall M, Briggs E, McCullar B. “Improving Care for Long Distance Patients: A web-based system for home monitoring and early intervention.”   
  
North American Cystic Fibrosis Conference - Baltimore, MD (Oct 2010):   
Allada G, Briggs E, Nguyen T, Gold J. “The distribution of Vancomycin mean inhibitory concentrations in Cystic Fibrosis patients with MRSA.”   
MacDonald K, Briggs E, Nguyen T, Wall M. “Patient factors associated with failure of oral antibiotic therapy in Cystic Fibrosis pulmonary exacerbation.”

***Jenny Kiratli, PhD***  
Palo Alto Va

*(no CV uploaded)*

**125**

**The Use of High Fidelity Human Simulation for Interdisciplinary Skill Training and Team Building for the Care of a Patient with Spinal Cord Injury**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Amanda Morina, PT,DPT,NCS,ATP***  
Thomas Jefferson University Hospital

**CV:**  
A. Personal Statement   
I am licensed physical therapist with a passion for providing neurological physical therapy to patients in the acute, inpatient rehabilitation, and outpatient settings. I am a primary mentor in a physical therapy neurological residency program and serve as adjunct faculty in an entry-level DPT program. I am involved in clinical research for patients with neurological dysfunction including spinal cord injury.   
  
B. Positions and Honors   
Positions and Employment   
2006-present Physical Therapist, Thomas Jefferson University Hospital, Philadelphia, PA   
2011-present Adjunct Faculty, Thomas Jefferson University, Philadelphia, PA   
2011 Thomas Jefferson University Alumni Emerging Leader Award   
2017 James B. Erdmann Award for Excellence in Interprofessional Collaborative Practice   
  
Certification:   
a. Pennsylvania State Licensure, Physical Therapy, 2006-present   
b. American Board of PT Specialties (ABPTS): Board Certified Neurologic Specialist , 2011-present   
c. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA): Assistive Technology Professional, 2015-present   
d. American Physical Therapy Association (APTA) Credentialed Clinical Instructor, 2007-present   
e. American Physical Therapy Association (APTA) Advanced Credentialed Clinical Instructor, 2013-present   
  
Clinical License: Pennsylvania Physical Therapist # 018433   
  
C. Contribution to Science   
  
Current Research Involvement:   
-Serves as a rater and clinical examiner in multiple studies including clients with diagnoses of spinal cord injury, stroke, and neurodevelopmental diseases, 2011-present   
  
D. Professional Memberships   
- Member, American Physical Therapy Association 2006- present   
- Member, American Spinal Injury Association 2014- present   
- Member, Academy of Spinal Cord Injury Professionals 2012-present   
- Member, Alpha Eta Society 2006-present   
  
E. Professional Presentations/Posters   
-Traumatic vs. Oncologic Spinal Cord Injuries: SCI Model Systems Leadership Forum, Houston, TX 10/2011   
-Prevention and Standard/Adjunctive PT Interventions for Pressure Ulcers: PPTA , Philadelphia,PA 3/2012   
-Interdisciplinary Communication Key to Success in Medically Complex Quadriplegia with Pressure Ulcer   
Academy of SCI Professionals, Las Vegas, NV 9/2012   
-Therapy and Nursing Collaboration: SCI Model Systems Leadership Forum, West Orange, NJ 10/2012   
-Diaphragmatic Pacing Systems in Persons with SCI: SCI Model Systems Leadership Forum Louisville, KY 10/2013   
-A Comparison of Remaining Autonomic Function in Traumatic versus Non-Traumatic Spinal Cord Injury. American Spinal Cord Injury Association Chicago, IL 5/2013   
-Interdisciplinary Approach to Wound Care in Patients with SCI: American Spinal Injury Association.San Antonio, TX 5/2014   
-Guest Lecturer, Neurologic Curriculum, Thomas Jefferson University. Philadelphia, PA 2013-present   
-Collaboration of Discipline-Specific Roles in the Care of a Patient with Stroke in the Acute Rehabilitation Center. Jefferson Center for Interprofessional Education. Philadelphia, PA 5/2014   
-Name That Wound Interdisciplinary Panel. Academy of SCI Professionals. New Orleans, Louisiana 9/2015   
-Wound Care in Patients with SCI. SCI Model Systems Leadership Forum, Los Angeles, California 10/2015   
-PT/OT Role in Acute Spinal Cord Injury. The Queen’s Medical Center Evidence Based Spinal Trauma Conference, Honolulu,HI. 2/2016   
-An Interdisciplinary Approach to a Medically Complex Patient with a Non-traumatic SCI Transitioning Through Multiple Levels of Care. American Spinal Injury Association. Philadelphia, PA. 4/2016   
-The Rehabilitation of Patients with LVADs, Our Experience. Association of Rehabilitation Nursing. Philadelphia, PA.9/2016   
-The Use of Human Simulation for Team Building and Skills Training. SCI Model Systems Leadership Forum, Denver, Colorado. 10/2016   
  
F. Additional Information: Research Support and/or Scholastic Performance   
- Contributor: SkinStep- A Pressure Injury treatment and Prevention e-learning Module   
- Contributing chapter author: Osteoporosis text book, anticipated 2017   
- Pro Bono Activities/Teaching   
-Hands of Hope: Ridge Avenue Homeless Shelter and Sunday Morning Breakfast Mission,   
Philadelphia, PA. Clinical Supervisor 2010-present   
- Rehabilitation Extern Coordinator: Thomas Jefferson University Hospital, Philadelphia, PA. 2007-present   
-Clinical Instructor: Thomas Jefferson University Hospital, Philadelphia, PA .2008-present

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**A systematic review on the epidemiology of war-related spinal cord injury among soldiers:**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Julio C. Furlan   
Assistant Professor   
  
1. EDUCATION   
Degrees   
2004 - 2006 MSc, Clinical Epidemiology, Department of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. David Urbach   
1994 - 1999 MBA, Healthcare System and Hospital Administration, São Paulo Business School, Getúlio Vargas Foundation, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana Maria Malik   
1994 - 1999 PhD, Surgery, Department of Surgery, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Anoi Castro Cordeiro   
1984 - 1999 BA, LL.B. Mackenzie University, São Paulo, São Paulo, Brazil   
1983 - 1988 MD, University of São Paulo, São Paulo, São Paulo, Brazil   
Postgraduate, Research and Specialty Training   
2014 Sep 1 - 2016 Jun 30 Clinical Fellowship, Neurorehabilitation and Neural Repair, Department of Medicine, Division of Physical Medicine and Rehabilitation and Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. B. Catharine Craven, Dr. David Tang-Wai   
2009 Jul 1 - 2014 Jun 30 Residency, Neurology, Department of Medicine, Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Marika Hohol, Dr. David Tang-Wai   
2003 - 2007 Clinical Research Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Michael G. Fehlings   
2001 - 2003 Post-Doctoral Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Andrei V. Krassioukov   
2000 - 2001 Clinical Research Fellowship, Head and Neck Surgery, Head and Neck Surgery, Department of Surgery, Mount Sinai Hospital, Toronto, Ontario, Canada, Supervisor(s): Dr. Irving B. Rosen   
1994 - 1996 Clinical Fellowship, Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 Feb 1 - 1994 Jan 31 Complementary Specialization (similar to residency training), Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 - 1993 Post-Graduate Diploma, Occupational Medicine, Department of Preventive Medicine, Faculty of Medicine, São Francisco University, São Paulo, São Paulo, Brazil   
1992 - 1993 Post-Graduate Diploma, Hospital Administration and Health Systems, São Paulo Business Administration School, Getúlio Vargas Foundation and University Hospital, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil   
1991 Feb 1 - 1992 Jan 31 Residency, Hospital Administration and Healthcare Systems, Department of Preventive Medicine, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana M. Malik   
1989 Feb 1 - 1991 Jan 31 Residency, General Surgery, Department of Surgery, Division of General Surgery and Trauma Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Dario Birolini   
Qualifications, Certifications and Licenses   
2015 May - present Fellow, Neurology, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 999157   
2009 Jul - present Canadian Medical Protective association (CMPA), Toronto, Ontario, Canada, License / Membership #: 20082118   
2009 Jul - present College of Physicians and Surgeons of Ontario (CPSO), Toronto, Ontario, Canada, License / Membership #: 090628   
2007 - present Licentiate, Medical Council of Canada (LMCC), Ottawa, Ontario, Canada, License / Membership #: 108367   
1999 May - present Organization of the Lawyers of Brazil, São Paulo, São Paulo, Brazil, License / Membership #: 167674   
1993 Aug - 1999 Nov Member, Head and Neck Surgery, Head and Neck Surgery, Society of Head and Neck Surgery, São Paulo, São Paulo, Brazil   
1988 Feb - 1999 Nov Regional Council of Medicine, São Paulo, São Paulo, Brazil, License / Membership #: 62585   
2. EMPLOYMENT   
Current Appointments   
2016 Sep 1 - present Assistant Professor, Division of Physical Medicine and Rehabilitation, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada   
2016 - present Clinician Investigator (Neurologist), Division of Physical Medicine and Rehabilitation, Toronto Rehabilitation Institute, Lyndhurst Centre, Toronto, Ontario, Canada   
Previous Appointments   
RESEARCH   
2007 - 2012 Associate Research Scientist, Department of Genetics and Development, Toronto Western Research Institute, University Health Network, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
INTERNATIONAL   
Received   
  
2016 Apr Fellow Research Travel Scholarship, American Academy of Neurology, Vancouver, British Columbia, Canada. (Distinction)   
2014 Oct CNS Resident Award for the best research paper, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
2014 Oct Depuy-Synthes Award, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
for resident research on spinal cord and spinal column injury for the best research paper.   
2012 Apr Resident Research Travel Scholarship, American Academy of Neurology, New Orleans, Louisiana, United States. (Distinction)   
2010 Apr Resident Research Travel Scholarship, American Academy of Neurology, Toronto, Ontario, Canada. (Distinction)   
2009 Sep Award for the Best Paper Published by an ASIA Member, Congress on Spinal Cord Medicine and Rehabilitation & 35th Annual Scientific Meeting of ASIA, Dallas, Texas, United States. (Distinction)   
2008 Jun Second Prize ASIA Poster Award, 34th Annual Meeting of the American Spinal Injury Association, San Diego, California, United States. (Distinction)   
2007 Nov - 2007 Dec Second Place Clinical Research Award, Cervical Spine Research Society’s Research Committee, San Francisco, California, United States. (Distinction)   
2006 Nov - 2006 Dec Second Place Basic Science Research Award, Cervical Spine Research Society’s Research Committee, West Palm Beach, Florida, United States. (Distinction)   
2006 May Travel Award, 8th International Neurotrauma Symposium, Rotterdam, Netherlands. (Distinction)   
2005 Nov Travel Award, 23rd Annual National Neurotrauma Society Symposium, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
2004 Sep Travel Award, 7th International Neurotrauma Symposium, Adelaide, Australia. (Distinction)   
for a high ranked abstract.   
2004 Mar Poster Award for Excellence in Clinical Spine Research, 2004 Annual Meeting of the American Association of Neurological Surgeons / CNS Section on Disorders of the Spine and Peripheral Nerves, San Diego, California, United States. (Distinction)   
2003 Oct Travel Award, 2003 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Ottawa, Ontario, Canada. (Distinction)   
for high ranked abstracts.   
2003 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Palm Beach, Florida, United States. (Distinction)   
based on high ranked abstracts.   
2003 Jul 2003 ISAN Prize for the best clinical study, 2003 Meeting of the International Society for Autonomic Neuroscience, Calgary, Alberta, Canada. (Distinction)   
2002 Oct Travel Award, 2002 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Vancouver, British Columbia, Canada. (Distinction)   
for high ranked abstracts.   
2001 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
  
NATIONAL   
Received   
  
2016 May 2nd Place Case Report Presentation, 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation, London, Ontario, Canada. (Distinction)   
2015 Jun Andre Barbeau Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Basic Science Research.   
2015 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Vancouver, British Columbia, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Resident Research Prize, 2011 PSI Foundation, Toronto, Ontario, Canada. (Distinction)   
for Excellence in Research Paper.   
2010 Oct First Place Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2010 Oct The People’s Choice Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the best poster presentation.   
2010 Jun Meloche Prize, Canadian Headache Society, Quebec City, Quebec, Canada. (Distinction)   
2009 May Best Clinical Science Research Poster Award, Annual Conference of the Canadian Pain Society, Quebec City, Quebec, Canada. (Distinction)   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2005 Nov Travel Award, 2005 Annual Scientific Meeting of the Canadian Society of Internal Medicine, Toronto, Ontario, Canada. (Distinction)   
2004 Dec Award of Merit in Clinical Research, 2004 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
2004 Jun The Neurocritical Care Prize, 39th Canadian Congress of Neurological Science, Calgary, Alberta, Canada. (Distinction)   
for the best paper on neurocritical care.   
2002 2002 D. Harold Copp Young Investigator in Training Award, Annual CDA/CSEM Meeting, Vancouver, British Columbia, Canada. (Distinction)   
for the abstract in endocrinology and metabolism.   
1991 Sep Anísio Costa Toledo Prize, XIII Brazilian Congress of Head and Neck Surgery, Caldas Novas, Goiás, Brazil. (Distinction)   
for outstanding Resident study in Head and Neck Surgery.   
  
PROVINCIAL / REGIONAL   
Received   
  
2007 Oct First Place Award, Research in the 15th Interurban Spinal Cord Injury Conference, Hamilton, Ontario, Canada. (Distinction)   
for the highest ranked abstract.   
2003 Dec Award of Merit in Basic Science, 2003 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
  
LOCAL   
Received   
  
2016 Apr OTR Conference Travel Award, University Health Network, Toronto, Ontario, Canada. (Distinction)   
2009 Oct Horsey Prize for Clinical Research (Second Place), Co-author, Division of Neurosurgery, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2008 May First Prize in the Wyeth Award poster competition, 2008 Gallie Day, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2006 Jun Runner-up Award for the second best oral presentation, 2006 Toronto Western Research Institute Research Day, Toronto, Ontario, Canada. (Distinction)   
2006 May First Place Award for the best presentation, 2006 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
2004 Jun First Place Award for the best presentation, 2004 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 Dec - present Member, Cervical Spine Research Society (CSRS), 32619-1   
2010 - present Member, American Academy of Neurology (AAN), 172625   
2010 - present Member, Canadian Neurological Science Federation/Canadian Neurological Society (CNSF/CNS), 4751   
2009 Jun - present Member, Canadian Medical Association (CMA), 152353   
2009 Jun - present Member, Ontario Medical Association (OMA), 1065762   
2004 - present Member, American Spinal Injury Association (ASIA), 109   
2004 - present Member, National Neurotrauma Society (NNS)   
  
Administrative Activities   
NATIONAL   
7th National Spinal Cord Injury Conference   
2016 Apr 14 - present Member, Planning Advisory Committee, Toronto, Ontario, Canada.   
  
LOCAL   
Toronto Rehabilitation Institute   
2016 Nov 9 - present Research Volunteer Pool (RVP) Steering Commitee, Toronto, Ontario, Canada.   
  
Peer Review Activities   
GRANT REVIEWS   
Internal Grant Reviewer   
2015 - present Toronto Rehabilitation Institute, Number of Reviews: 2   
  
MANUSCRIPT REVIEWS   
Reviewer   
2014 - present Acta Neurologica Scandinavia, Number of Reviews: 1   
2014 - present CMAJ, Number of Reviews: 4   
2014 - present PLoS, Number of Reviews: 2   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Acute Spinal Cord Injury. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings, and James Harrop. Collaborators: Drs. Jefferson R. Wilson, Anthony Burns, Brian Kwon, Lindsay Tetreault, Bizhan Aarabi, Paul Anderson, Paul M. Arnold, Darrel Brodke, Kazuhiro Chiba, Gregory Hawryluk, Langston Holly, Susan Howley, Tara Jeji, Sukhvinder Kalsi-Ryan, Mark Kotter, Shekar Kurpad, Ralph Marino, Allan R. Martin, Eric Massicotte, Geno Merli, Hiroaki Nakashima, Narihito Nagoshi, Katherine Palmieri, Mohammed Shamji, Anoushka Singh, Eve Tsai, Alexander.   
This guideline is divided into five sections. The following sections describe the key knowledge gaps, previous published guidelines and rationale for each topic: (a)Timing of Surgical Decompression; (b) The Use of Methylprednisolone Sodium Succinate; (c) The Type and Timing of Anticoagulation Prophylaxis; (d) The Role of Baseline Magnetic Resonance Imaging in Clinical Decision-Making and Prognostication; and (e) The Type and Timing of Rehabilitation.   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Patients with Degenerative Cervical Myelopathy. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings and Jeffrey C. Wang. Collaborators: Drs. Lindsay A. Tetreault, Mohammed Shamji, Daniel Riew, James Middleton, Bizhan Aarabi, Paul M. Arnold, Darrel Brodke, Anthony Burns, Simon Carette, Robert Chen, Kazuhiro Chiba, James Harrop, Langston Holly, Sukhvinder Kalsi-Ryan, Mark Kotter, Brian Kwon, Allan R. Martin, James Milligan, Hiroaki Nakashima, Narihito Nagoshi, John Rhee, Anoushka Singh, Sumeet Sodhi, Jefferson Wilson, Albert Yee.   
The main objective of this guideline is to outline how to best manage patients with myelopathy and nonmyelopathic patients with evidence of cervical cord compression. Five systematic reviews were conducted to summarize the current body of evidence. Recommendations are provided for: (a) Patients with Severe DCM; (b) Patients with Moderate DCM; (c) Patients with Mild DCM; (d) Nonmyelopathic patients with evidence of cord compression without signs and symptoms of radiculopathy; and (e) Nonmyelopathic patients with image evidence of cord compression and clinical and/or electrophysiological evidence of radiculopathy.   
2009 - present Topic leader. Epidemiology of Traumatic SCI. The SCIRE Project, Vancouver, British Columbia, Canada. Supervisor(s): Furlan, Julio Cesar. Collaborator(s): Krassioukov, Andrei V.; Miller, William C.; Trenaman, Logan M.   
“Epidemiology of Traumatic SCI” is 1 of 17 topics relevant to SCI rehabilitation and community reintegration. The members of the Spinal Cord Injury Research Evidence (SCIRE) Project have been reviewing, evaluating and translating research knowledge into concise and clear reports on the best SCI rehabilitation practices for health professionals and other stakeholders. The most recent version of the reports is publically available at www.scireproject.com.   
  
C. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2010 - 2012 Principal Investigator. The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Christopher Reeve Foundation. 120,000 USD. [Grants]   
  
2009 Principal Investigator. Economic impact analysis and process benchmarking appraisal of early surgical decompression for traumatic cervical spinal cord injury. Rick Hansen Foundation and SCI Solutions Network – Rapid Response Grant. 97,517.14 CAD. [Grants]   
  
2008 - 2009 Principal Investigator. Economic impact of early surgical decompression for traumatic spinal cord injury: Cost-effectiveness and cost utility analyses using insurer-based health costing data. Cervical Spine Research Society. 25,477 USD. [Grants]   
  
2007 - 2011 Co-Investigator. Surgical versus nonoperative treatment of metastatic epidural spinal cord compression. AOSpine International. PI: Fehlings, Michael. 304,020 USD. [Grants]   
  
2005 - 2006 Principal Investigator. The effects of gender on outcomes after traumatic spinal cord injury: A combined approach using bioinformatics and molecular/confocal analysis of injured spinal cord tissue. Henry A. Beatty Scholarship. Collaborator(s): Dr. Michael Fehlings. 12,000. [Grants]   
  
2. SALARY SUPPORT AND OTHER FUNDING   
Personal Salary Support   
2016 - 2018 Salary support award. Wings for Life Research Foundation. 114,000 EUR. Salzburg, Austria.   
  
Trainee Salary Support   
2013 Jul - 2014 Jun A cost-utility comparing IVIg with PLEX in the management of patients with myasthenia gravis. Joseph M West Memorial Fund and Miriam Neveren Memorial Award (University of Toronto). 14,634 CAD. Toronto, Ontario, Canada.   
  
2012 Jul - 2013 Jun Serum hemoglobin concentration on admission as a potential predictor of outcomes after acute stroke. Chisholm Memorial Fellowship, William H. Fenwick Research Fellowship and Joseph M. West Family Memorial Fund (University of Toronto). 12,050 CAD. Toronto, Ontario, Canada.   
  
2011 Jul - 2012 Jun White blood cell and differential counts as a marker of prognosis after acute ischemic stroke. Joseph M. West Family Memorial Fund, Chisholm Memorial Fellowship, Edward Christie Stevens Fellowship in Medicine (University of Toronto). 10,312.48 CAD. Toronto, Ontario, Canada.   
  
2010 Jul - 2011 Jun The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Edward Christie Stevens Fellowship, Javenthey Soobiah Scholarship, Nellie L. Farthing Fellowship, William S. Fenwick Fellowship (University of Toronto). 19,960 CAD. Toronto, Ontario, Canada.   
  
D. Publications   
1. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Craven BC. Psychometric analysis and critical appraisal of the original, revised, and modified versions of the Japanese Orthopaedic Association score in the assessment of patients with cervical spondylotic myelopathy. NEUROSURGICAL FOCUS. 2016 Jun;40(6):E6, 1-15. Principal Author.   
2. Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin with plasma exchange in the management of patients with myasthenia gravis: Different perspectives for different payers. MUSCLE AND NERVE. 2016 Jun;53(6):872-6. Principal Author.   
3. Furlan JC, Craven BC, Massicotte EM, Fehlings MG. Early versus delayed surgical decompression of spinal cord after traumatic cervical spinal cord injury: A cost-utility analysis. WORLD NEUROSURGERY. 2016 Apr;88:166-74. Principal Author.   
4. Furlan JC, Fang J, Silver FL. Outcomes after Acute Ischemic Stroke in Patients with Thrombocytopenia or Thrombocytosis. JOURNAL OF THE NEUROLOGICAL SCIENCES. 2016 Mar;15(362):198-203. Principal Author.   
5. Furlan JC, Verocai F, Palmares X, Fehlings MG. Electrocardiographic abnormalities in the early stage following traumatic spinal cord injury. SPINAL CORD. 2016 Feb 16. Epub ahead of print. Principal Author.   
6. Furlan JC, Fang J, Silver FL. Acute Ischemic Stroke and Abnormal Blood Hemoglobin Concentration. ACTA NEUROLOGICA SCANDINAVICA. 2015 Oct 20. Epub ahead of print. Principal Author.   
7. Furlan JC, Chui MH, Croul SE, Kongkham P. Mystery Case: Tanycytic ependymoma of the conus medullaris - a rare cause of low back pain. NEUROLOGY. 2014 Jun 17;82(24):e212-3. Principal Author.   
8. Hawryluk GWJ, Furlan JC, Austin J, Fehlings MG. Individual Characteristics and Management Decisions Affect Outcome of Anticoagulated Patients with Intracranial Hemorrhage. WORLD JOURNAL OF NEUROSURGERY. 2014 May;81(5-6):742-51. May-Jun. Coauthor or Collaborator.   
9. Furlan JC, Henri-Bhargava AR, Freedman M. Clomipramine in the treatment of compulsive behavior in frontotemporal dementia: A case series. ALZHEIMER DISEASE & ASSOCIATED DISEASES. 2014;28(1):95-8. Principal Author.   
10. Furlan JC. Autonomic dysreflexia: A Clinical emergency. JOURNAL OF TRAUMA AND ACUTE CARE SURGERY. 2013 Sep;75(3):496-500. Principal Author.   
11. Furlan JC, Sander L., Hitzig, B., Catharine Craven. The influence of age on functional recovery of adults with spinal cord injury or disease after inpatient rehabilitative care. AGING CLINICAL AND EXPERIMENTAL RESEARCH. 2013 Aug;25(4):463-71. Principal Author.   
12. Furlan JC, Fehlings MG. Blood Alcohol Concentration as a Determinant of Outcomes after Traumatic Spinal Cord Injury. EUROPEAN JOURNAL OF NEUROLOGY. 2013 Jul;20(7):1101-6. Principal Author.   
13. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Global incidence and prevalence of traumatic spinal cord injury. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):456-64. Principal Author.   
14. Arvin B, Kalsi-Ryan S, Mercier D, Furlan JC, Massicotte EM, Fehlings MG. Pre-operative MRI imaging is associated with baseline neurological status and can predict postoperative recovery in patients with cervical spondylotic myelopathy. SPINE. 2013 Jun 15;38(14):1170-6. Coauthor or Collaborator.   
15. Furlan JC, Tung K, Fehlings MG. Process Benchmarking Appraisal of Early Surgical Decompression of Spinal Cord following Traumatic Cervical Spinal Cord Injury: Opportunities to Enhance the Time to Definitive Treatment. JOURNAL OF NEUROTRAUMA. 2013 Mar 15;30(6):487-91. Principal Author.   
16. Furlan JC, Hawryluk GWJ, Austin J, Fehlings MG. Spinal Hemorrhage during Anticoagulation: A Unique Form of Central Nervous System Hemorrhage. JNNP. 2012 Jul;83(7):746-52. Principal Author.   
17. Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. The combined use of surgery and radiotherapy to treat patients with epidural cord compression due to metastatic disease: A cost-utility analysis. NEURO-ONCOLOGY. 2012 May;14(5):631-40. Principal Author.   
18. Nelli JM, Nicholson K, Fatima Lakha S, Louffat AF, Chapparo L, Furlan JC, Mailis-Gagnon A. Use of a modified Comprehensive Pain Evaluation Questionnaire (CPEQ): characteristics and functional status of patients on entry to a tertiary care pain clinic. PAIN RESEARCH AND MANAGEMENT. 2012 Mar;17(2):75-82. Mar-Apr. Coauthor or Collaborator.   
Case Reports   
1. Furlan JC, Robinson L, Murray B. Stepwise paralysis in a patient with adenocarcinoma of lung. NEUROLOGY; 2016 Mar 22. 5 p. 86(12):e122-7. Principal Author.   
2. Furlan JC, Sundaram ANE. What is your call? Sudden onset anisocoria in a patient with upper respiratory tract infection. CMAJ; 2014 Jan 7. 4 p. 186(1):57-61. Principal Author.   
3. Furlan JC, Valiante T, Dickson B, Kiehl T-R. Paraspinal desmoid-type fibromatosis as a cause of low back pain. SPINE JOURNAL; 2013 Dec 1. 1 p. 13(12):1958-9. Principal Author.   
Book Chapters   
1. Furlan JC. World Perspective of Epidemiology of Cerebrovascular Disease. In: In: The influence of Sleep in the Primary and Secondary Prevention of Cerebrovascular Disease. Coelho FMS; 2014. In Press. Principal Author.   
2. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Epidemiology of Traumatic SCI. In: Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, Connolly SJ, Mehta S, Sakakibara BM, editor(s). Spinal Cord Injury Rehabilitation Evidence. 4.0. Vancouver (Canada); 2012. Principal Author.   
3. Furlan JC, Tator CH. Global Epidemiology of Traumatic Spinal Cord Injury. In: Morganti-Kossman C, Raghupathi R, Maas Andrew, editor(s). Book Traumatic Brain & Spinal Cord Injury: Challenges & developments. Cambridge (United Kingdom): Cambridge University Press; 2012. p. 216-228. Principal Author.   
4. Cadotte DW, Furlan JC, Fehlings MG. Timing of surgery for spinal cord injury. In: Ghogawala Z, Krishnaney AA, Steinmetz MP, Batjer HH, Benzel EC, editor(s). The Evidence for Neurosurgery. Shrewsbury (United Kingdom): tfm Publishing Limited; 2012. p. 471-483. Senior Responsible Author.   
  
Editorials   
1. Furlan JC. Databases and registries on traumatic spinal cord injury in Canada. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):454-5. Principal Author.   
Other Publications   
1. Furlan JC. Post-Stroke mortality elevated by high and low blood platelet counts. The Chronicle in Neurology + Psychiatry (by John Evans). Principal Author.   
E. Presentations and Special Lectures   
1. INTERNATIONAL   
Presented Abstracts   
2016 Apr 17 Presenter. Acute care and neurorehabilitation management of the elderly with traumatic cervical spinal cord injury: A cost-utility analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Poster Presentation at Scientific Meeting on Neurology - Neurorehabilitation.   
2016 Apr 16 Presenter. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Massicotte EM, Craven BC. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 16 Presenter. Intravenous Immunoglobulin versus Plasma Exchange in the Management of Patients with Myasthenia Gravis: A Cost-Minimization Analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Poster Presentation at Scientific Meeting on Neurology - Neuromuscular Disorders.   
2016 Apr 14 Presenter. A cost-utility analysis comparing younger versus elderly regarding acute care and rehabilitation management after acute traumatic cervical spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Oral Presentation on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Does age at the time of trauma affect the inflammatory response, glial and axonal survival after traumatic spinal cord injury? 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Abnormal ECG parameters in the early phase following acute traumatic spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Palmares X, Verocai F, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2014 Oct 21 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, Session on Neurotrauma and Critical Care. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2014 Oct 20 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, General Scientific Session II. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2013 May 30 Presenter. Decompressive Surgery and Radiotherapy in the Palliative Care of Metastatic Spinal Cord Compression: Cost-Utility of a New Treatment Standard. 13th World Congress of the European Association for Palliative Care (EAPC). Prague, Czech Republic. Presenter(s): Klinger CA, Furlan JC, Chan K, Sandoval G., Lam K, Patchell RA, Laporte A, Fehlings MG. May 30th to June 2nd 2013. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 20 Presenter. Electrocardiogram abnormalities within the first 72 hours following acute traumatic spinal cord injury. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Palmares X, Verocai F. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 18 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Jul 22 Presenter. Early Versus Lates Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Neurotrauma Symposium. Phoenix, Arizona, United States. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr 26 Presenter. Case Studies: Unusual Diagnostic and Management of Cases in Neuromuscular Disease. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Tarnopolosky M, Dodig D. Oral Presentation on Neurology.   
2012 Apr 26 Presenter. Is Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI) Feasible and Cost-Effective? 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 25 Presenter. Palliative Care of Patients with Metastatic Spinal Cord Cancer: A Cost-Utility Analysis Comparing the Standard of Care with Direct Decompressive Surgical Resection Followed by Radiotherapy. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 24 Presenter. White Blood Cell Count as a Marker of Stroke Severity and Clinical Outcomes after Acute Ischemic Stroke. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI): A Process Benchmarking Appraisal. 2012 Annual Meeting of the American Association of Neurological Surgeons. Miami, Florida, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2. NATIONAL   
Invited Lectures and Presentations   
2016 May 27 Invited Speaker. A Review on Cervical Spondylotic Myelopathy. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation (SCI Special Interest Group Session). London, Ontario, Canada. Presenter(s): Furlan JC.   
2014 Oct 3 Invited Speaker. The Science and Art of Measuring Outcomes after Spinal Cord Injury. 6th National Spinal Cord Injury Conference – Bioinformatics Inform SCI Rehabilitation. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2016 May 28 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Oral Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 27 Presenter. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 26 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2013 May 24 Presenter. A Cost-Utility Analysis and Feasibility Study on Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury. 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2013 May 23 Presenter. Is white blood cell count a key determinant of stroke severity and clinical outcomes after acute ischemic stroke? 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology.   
2012 Jun 5 Presenter. A Second Chance to Make a First Impression: A Neuromuscular Challenge. 2012 Annual Meeting of the Neuromuscular Special Interest Group, Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Rotstein D, Katzberg H. Oral Presentation at Scientific Meeting on Neurology.   
2012 May Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2012 Presenter. A Global Perspective on the Frequency of the Leading Causes of Spinal Cord Injury. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Sakakibara BM, Miller WC, Furlan JC, Von Elm E, Krassioukov AV. Poster Presentation at Scientific Meeting on Neurology.   
Presented and Published Abstracts   
2015 Jun 12 Presenter. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S19. Abstract E.09. Principal Author.   
2015 Jun 12 Presenter. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S15. Abstract E.01. Principal Author.   
2015 Jun 10 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. The Canadian Journal of Neurological Sciences. 2015 Jun 10;42(Supplement 1):S9. Abstract B.01.   
2015 Jun 10 Presenter. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015;42(Supplement 1):S9. Abstract B.02. Coauthor or Collaborator.   
2012 Oct 20 Presenter. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Tsung K, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Tsung K, Fehlings MG. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):433. Abstract ID# 22. Principal Author.   
2012 Oct 20 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 5th Natonal Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Popovic MR, Craven BC. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. JSCM. 2012 Oct;35(5):433. Abstract ID# 68. Principal Author.   
2012 Oct 19 Presenter. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):454. Abstract ID# 51. Principal Author.   
2012 Jun 8 Presenter. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL.   
  
Publication Details:   
Furlan JC, Vergouwen M, Silver FL. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S30. Abstract L08. Principal Author.   
2012 Jun 7 Presenter. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation, CNSS Chair’s Select Plenary Presentations. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3):S10. Abstract B01. Principal Author.   
2012 Jun 7 Presenter. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S50. Abstract P060. Principal Author.   
3. PROVINCIAL / REGIONAL   
4. LOCAL   
Invited Lectures and Presentations   
2015 Mar 5 Invited Speaker. An Under-Recognized Cardiovascular Complication of “Allbuff’s Disease”. Brain Science Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Sep Invited Speaker. What are the two diagnoses? (Case discussion and review on neuromyelitis optica with superimposed autonomic dysreflexia). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Aug Invited Speaker. “Little sparks kindle great FIRES” (Case discussion and review on FIRES). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Apr Invited Speaker. An unusual cause of back pain: What is your call? Slide Club of the Division of Neuropathology, University of Toronto (Case discussion on lumbar fibromatosis). Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. “Where there is smoke, there is fire!” (Case discussion and review on FIRES). Neuroscience Rounds at the Hospital for Sick Children, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. The Superman’s worst headache: An under-recognized medical condition. Neurology Grand Rounds at the Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Aug 17 Invited Speaker. Spinal Arterial-Venous Fistula: A case and brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jul 6 Invited Speaker. Approach to Acute Myelopathies: A brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 May 10 Invited Speaker. Timing for Anticoagulation after CNS Hemorrhage in Patients with High Risk for Thromboembolic Events. Brain Sciences Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Mar Invited Speaker. Autonomic dysreflexia: An under-recognized clinical entity. St. Michael’s Hospital Neuroscience Rounds. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Feb Invited Speaker. An under-recognized cause of headache. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jan Invited Speaker. Anticoagulation after CNS Hemorrhage in Patients with High Thromboembolic Risk: “A Bloody Decision”. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2012 Nov Presenter. The relevance of age on the inflammatory response and axonal survival following traumatic cervical spinal cord injury: Preliminary results of a histopathological and immunohistochemical examination of postmortem human spinal cord tissue. 2012 Faculty Research Day, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
F. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 Jul - 2015 Jun Co-Supervisor. Engineering student. Karlo Nesovic, Electrical and Computer Engineering, Biomedical Engineering. Development of an innovative diagnostic tool using somatosensory evoked potentials elicited by proprioceptive stimulation, Non-thesis Project. Supervisor(s): Popovic, Milos R. Completed 2018.   
Undergraduate MD   
2008 Jan - 2008 Oct Primary Supervisor. Deepa Kattail. Supervisee Position: Research student. Epidemiology and outcomes of traumatic spinal cord injury, Non-thesis Project. Awards: First Prize in the Wyeth Award poster competition in the 2008 Gallie Day, Department of Surgery, University of Toronto. Collaborator(s): Dr. Michael G. Fehlings. Completed 2008.   
Postgraduate MD   
2016 Nov - 2017 Jan Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. The economics on the care of veterans with spinal cord injury or disease., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2017.   
2016 Sep - 2016 Dec Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. Epidemiology of war-related spinal cord injury among combatants., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2016.   
2016 Aug - 2016 Nov Primary Supervisor. PGY 1. Dr. Jason Liang. Supervisee Position: PGY 1. Music therapy for pain relief in patients with non-cancer pain, Non-thesis Project. Completed 2016.

***Sivakumar Gulasingam, MBBS, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Sivakumar A. Gulasingam   
Assistant Professor   
  
PROFESSIONAL EXPERIENCE   
Current Experience   
• Assistant Professor, University of Toronto, Department of Medicine, Division of Physical Present   
Medicine and Rehabilitation, Toronto, Ontario, Canada   
• Staff Physiatrist (Physical Medicine & Rehabilitation) 2016 - Present   
Brain & Spinal Cord Rehabilitation Program AND Cardiovascular Prevention & Rehabilitation Program   
Toronto Rehabilitation Institute, University Health Network   
• Physiatrist and Sports Medicine Physician, The Family Medical Centre, Toronto, Ontario, Canada 2016 - Present   
Prior Work Experience   
• Clinical Fellow, Physical Medicine and Rehabilitation, University of Toronto, Ontario, Canada 2016 - 2017   
• Resident Physician, Physical Medicine and Rehabilitation, University of Toronto, Ontario, Canada 2011 - 2016   
• Project Collaborator, Individualized Spinal Cord Injury Discharge Manual, Lyndhurst Centre, Toronto 2010 - 2011   
• Physician Assistant - Men's' Health, Ontario Men’s Health, York Mills, Ontario 2009 - 2011   
• Senior Medical Officer - Rehabilitation Medicine, Rheumatology & Rehabilitation Hospital, Sri Lanka 2001 - 2008   
• Senior Medical Officer - Psychiatry, Teaching Hospital Batticaloa, Sri Lanka 2000 - 2001   
• Medical Officer - Pediatrics and Obstetrics & Gynecology, University of Colombo, Sri Lanka 1999 - 2001   
• Research Assistant, UNICEF, Colombo, Sri Lanka 1997 - 1998   
EDUCATION   
Degrees And Diplomas   
• Clinical Fellowship in Spinal Cord Injury, Sexual Medicine and Cardiac Rehabilitation 2016 - 2017   
University of Toronto, Ontario and University of British Columbia, Vancouver, Canada   
• Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) 2016   
The Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada   
• Residency Training in Physical Medicine and Rehabilitation 2011 - 2016   
University of Toronto, Ontario, Canada   
• Post Graduate Diploma in Applied (Medical) Sociology 2006 - 2007   
Department of Sociology, University of Colombo, Sri Lanka   
• National Diploma in Human Resource Management, 2002 - 2003   
Institute of Personal Management, Sri Lanka   
• MBBS, Bachelor of Medicine & Bachelor of Surgery 1992 - 1997   
Faculty of Medicine, University of Colombo, Sri Lanka   
• Diploma in Computer Programming and Design, 1989 - 1992   
Association of Computer Professionals (ACP), London, United Kingdom   
Training And Certification   
• World Para Dance Sport Classifier Training Level II & III, 2017   
International Paralympic Committee, Warsaw, Poland   
• World Para Athletics Classifier Training Level II & III, 2014   
International Paralympic Committee, Sao Paulo, Brazil   
• National Para Athletics Classification Certification for Physical Impairment, 2012   
Athletics Canada, Toronto, Ontario, Canada   
• Para Athletics International Classifier Training, 2007   
International Paralympic Committee (IPC), Singapore   
• Train-the-Trainers on Spinal Cord Injury Rehabilitation, Motivation Trust - UK, Sri Lanka 2007   
Sivakumar A. Gulasingam / Curriculum Vitae / ASIA 2018 Page 2 of 4   
• Doping Control Workshop, World Anti Doping Authority, Commonwealth Games Assembly, Sri Lanka 2007   
• Team Physician Development Course, 1998   
Sri Lanka Sports Medicine Association, International Federation of Sports Medicine (FIMS)   
Colombo, Western Province, Sri Lanka   
APPOINTMENTS   
International   
• Categorization Lead - Invictus Games, Multi Sport World Para Games for Wounded Heroes 2017   
Invictus Games 2017, Toronto, Ontario, Canada   
• World (International) Para Dance Classifier, International Paralympic Committee (IPC) Present   
• World (International) Para Athletics Classifier, International Paralympic Committee (IPC) 2014 - Present   
National   
• Chair - International Rehabilitation Special Interest Group (SIG), Present   
Canadian Association of Physical Medicine and Rehabilitation (CAPMR)   
• Member - Education Special Interest Group (SIG), Present   
Canadian Association of Physical Medicine and Rehabilitation (CAPMR)   
• Member - National Working Group on Sexual Health in SCI, Present   
SCI Rehabilitation Care - High Performance Indicator Project, Rick Hansen Institute (RHI), Canada   
• National Head of Classification - Para Dance Sports, WHEEL DANCE Canada, Ontario, Canada 2016 - Present   
• National Trainer & Classifier - Para Athletics, Athletics Canada, Ontario, Canada 2011 - Present   
• Founder President - Sri Lanka Association of Professionals for People with Spinal Cord Injury 2006 - 2008   
(SLAPSCI), Colombo, Sri Lanka   
• National Lead Physician - Para Sports, National Federation of Sports for the Disabled 2004 - 2008   
National Paralympic Committee, Colombo, Sri Lanka   
• Project Chairman - International Day for Persons with Disability, 2002 - 2008   
Rheumatology & Rehabilitation Hospital, Ragama, Western Province, Sri Lanka   
• Lecturer - Sri Lanka School of Prosthetics and Orthotics 2001 - 2008   
Partnership between Ministry of Health Sri Lanka, The Nippon Foundation and the Cambodia Trust   
Rheumatology & Rehabilitation Hospital (RRH),Ragama, Western Province, Sri Lanka   
• Project Lead - Free Medical Health Camps for Plantation Sector and the Underserved, 1998 - 2008   
Lions Club of Battaramulla, Lions District 306 C, Sri Lanka   
• Project Lead - Post Asian Tsunami Emergency Relief - Northern District, Ministry of Health Sri Lanka 2004 - 2005   
Provincial / Local   
• University Lead - PMR Objective Structured Clinical Examination (OSCE), Present   
Department of Medicine, University of Toronto, Ontario, Canada   
• Member - Residency Program Committee, Division of PMR, University of Toronto, Ontario, Canada 2014 - 2015   
• Member - PMR Division Strategic Planning Committee, University of Toronto, Ontario, Canada 2014 - 2015   
• Member - PMR Division Internal Review Committee, University of Toronto, Ontario, Canada 2014 - 2015   
MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS   
• Canadian Association of Physical Medicine and Rehabilitation (CAPM&R)   
• American Congress of Rehabilitation Medicine (ACRM)   
• Canadian Academy of Sports and Exercise Medicine (CASEM)   
• International Paralympic Committee (IPC)   
• Asian Spinal Cord Network (ASCON)   
• National Federation of Sports for the Disabled (National Paralympic Committee), Sri Lanka   
• Sri Lanka Medical Association   
HONORS AND AWARDS   
• Post Graduate Trainee Leadership Award, Post Graduate Medical Education, University of Toronto 2016   
• Resident Research Award, Division of Physical Medicine & Rehabilitation, University of Toronto 2013   
Sivakumar A. Gulasingam / Curriculum Vitae / ASIA 2018 Page 3 of 4   
• National Award for the Most Outstanding Young Persons of the Year - Humanitarian and Voluntary Services 2004   
• Governor’s Award for Humanitarian Service, Lions International District 306C, Sri Lanka. 2003   
• Best Poster Presentation - “Changing Paradigms of Spinal Cord Injury in Sri Lanka” 2003   
3rd Asian Spinal Cord Network (ASCON) Conference, Chiang Mai, Thailand   
• Best Secretary of the Year - 1st Runner-up, Lions International District 306C, Sri Lanka. 2001   
RESEARCH AND PUBLICATIONS   
Publications   
• “The Health Economics of the Spinal Cord Injuries & Diseases among veterans of war: A 2016 - 2017   
Systematic Review", (Furlan JC, Gulasingam S, Craven BC),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
The Journal of Spinal Cord Medicine   
http://www.tandfonline.com/doi/abs/10.1080/10790268.2017.1368267Member   
• “Vocational Rehabilitation in Life after Paralysis”, 2006 - 2007   
(Gulasingam S), Post Graduate Diploma Research Thesis   
Department of Sociology, University of Colombo, Sri Lanka   
Peer-Reviewed Publications   
• Spinal Cord Essentials - Individualized Spinal Cord Injury (SCI) Discharge Manual 2010 - 2011   
Alternate Funding Program, Ministry of Health and Long Term Care, Ontario   
Lyndhurst Centre, Toronto Rehabilitation Institute, Ontario, Canada   
http://www.spinalcordessentials.ca/about/   
Non-Peer-Reviewed Publications - Posters   
• “Evidence Informed Protocols for Treatment of Sublesional Osteoporosis after SCI", 2016 - 2017   
(Bondi M, Gulasingam S, Craven BC, Burns T),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
Accepted for presentation at the 7th annual SCI conference, Niagara Falls, Ontario, Canada   
• "Developing a Para Dance Sport National Classifier Base: A Canadian Journey", 2017   
(Gulasingam S, Kulbatski I, Newell E), WHEEL DANCE Canada and University of Toronto,   
VISTA 2017 International Sports Conference, Toronto, Ontario, Canada   
https://www.paralympic.org/sites/default/files/document/170901103331709\_VISTA%2BAbstracts\_Final.pdf   
• “Health Economics of the Spinal Cord Injuries & Diseases among veterans of war: A Systematic Review", 2017   
(Gulasingam S, Furlan JC, Craven BC)   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
CAPM&R 2017 Conference, Niagara Falls, Ontario, Canada   
• “Screening for Neuro-endocrine Dysfunction in Traumatic Brain Injury”, 2013 - 2014   
(Guo M, Gulasingam S, Tam A, Mian N, Journeay S, Lo A), Division of PMR, University of Toronto   
University of Toronto Quality Improvement Day 2015, Toronto, Canada   
• “Association Between Time since Stroke and Botulinum Toxin Dosage”, 2011 - 2013   
(Phadke C, Gulasingam S, Davidson C, Ismail F, Boulias C), West Park Health Care Centre, Toronto   
ACRM 90th Annual Conference, Florida, USA   
Submitted Publications   
• “Managing the anticoagulated patient with spasticity: A Delphi-based Canadian Consensus statement", 2017   
(Boulias C, Ismail F, Padhke C, Gulasingam S, et al)   
West Park Health Care Centre, Toronto and Canadian Spasticity Group   
Accepted at ACRM 94th Annual Conference, Atlanta, Georgia, USA.   
• “The Economic Impact of Cervical Spinal Cord Injuries & Diseases on the Health Care of 2017   
War Veterans: A Systematic Review", (Furlan JC, Gulasingam S, Craven BC) ,   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto, Canada   
Submitted to American Spinal Injury Association (ASIA) 2018 Meeting, Rochester, Minnesota, USA.   
• “Epidemiology of War Related Spinal Cord Injury among Combatants: A Systematic Review" 2017   
(Furlan JC, Gulasingam S, Craven BC),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto, Canada   
Submitted to American Spinal Injury Association (ASIA) Annual Meeting 2018, Rochester, Minnesota, USA.   
Sivakumar A. Gulasingam / Curriculum Vitae / ASIA 2018 Page 4 of 4   
PRESENTATIONS AND MANUAL DEVELOPMENT   
High Impact Presentations   
• Co-presenter, "Bone Health in Paralympian", VISTA 2017 International Sports Conference, 2017   
(Craven BC, Gulasingam S), International Paralympic Committee (IPC), Toronto, Ontario, Canada   
• Speaker, "Essentials of Skin & Wound Care in Para Athletes", Ontario Medical Association (OMA) 2017   
Sports Medicine Conference, Ontario, Canada   
• Invited Speaker, “Role Physiatrist in Para Sports", University of British Columbia, Vancouver, Canada 2017   
• Speaker, “Importance of Moisture Control in Wound Care", 2016   
Physician Leadership Meeting, University Health Network (UHN), Toronto, Canada   
• Speaker, “Synchronized Swimming and Management of Injuries”, Toronto 2015 Panam Games, Toronto 2015   
• Invited Speaker, “Nurturing Success: Through the eyes of a fellow Physician”, 2015   
Ontario Institute for Studies and Education (OISE), University of Toronto, Toronto, Canada   
• Symposium, "Opioids for Chronic Non-Cancer Pain: Update on the Scientific Evidence & 2013   
Practical Aspects of Prescribing", Co Presenters Furlan A, Flannery J   
American Congress of Rehabilitation Medicine (ACRM) 91st Annual Conference, Toronto, Ontario, Canada   
• Workshop Lead - SCI Rehabilitation, Spinal Injury Rehabilitation Centre (SIRC), Jorpati, Nepal 2004   
Spinal Injury Rehabilitation Centre (SIRC), Jorpati, Nepal   
Manuals and Curriculum Development   
• Author, Sports Specific Functional Categorization of Physical Impairments in Multi Sport Setting, 2016 - Present   
Invictus Games (IG) for War Heroes, IG2017, Toronto, Ontario, Canada   
• Author, Para Dance Sports Classifier Training Manual (Canada), 2016 - Present   
WHEEL DANCE Canada, Ontario, Canada   
• Collaborator, Development of Inter-Professional Pain Curriculum for undergraduate medical 2012 - 2013   
and allied health students, University of Toronto, Ontario, Canada   
• Collaborator, ‘Spinal Cord Essentials’ - Individualized Spinal Cord Injury Discharge Manual, 2010 - Present   
Alternative Funding Plan (AFP), Innovation Funds, Ministry of Health and Long Term Care, Canada   
• Collaborator, Development of Inter-Professional Pain Curriculum, ‘Pain Week’, University of Toronto 2012 - 2013   
• Curriculum Development for International Medical Doctors Study Groups, Health Force Ontario 2010 - 2011   
• Author, National User Guides on Rehabilitation, Handicap International, Sri Lanka 2008

***Beverly Craven, BA, MD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Beverley Catharine Craven   
Associate Professor   
  
1. EDUCATION   
Degrees   
2003 - 2007 MSc, Clinical Epidemiology, HPME, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): GA Hawker   
1994 - 1998 FRCP(C), Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1991 - 1994 MD, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1984 - 1989 BA, Specialized Honours Physical Education, Kinesiology and Health Science, York University, Toronto, Ontario, Canada   
Postgraduate, Research and Specialty Training   
1998 - 1999 Clinical Scholar, Physiatry, Spinal Cord Injury Rehabilitation, Dept of Medicine, University of Toronto, Toronto Rehabilitation Institute, Toronto, Ontario, Canada, Supervisor(s): Dr CF McGillivray (University of Toronto) & Dr JD Adachi (McMaster University)   
1994 - 1998 Resident, Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada, Supervisor(s): Dr. M. Bayley & Dr. D. Harvey   
Qualifications, Certifications and Licenses   
2008 - present BCLS/AED Certification, Toronto, Ontario, Canada   
1991 - present CCD® Certified Clinical Densitometrist, International Society of Clinical Densitometry, United States, License / Membership #: 11-06-99-0-26   
2015 Jul Protecting Human Research Participants Certificate, NIH Office of Extramural Research, United States, License / Membership #: 1794948   
2014 Jul - 2015 Jun Medi Maps Group, Montreal, Quebec, Canada   
1998 Fellow of the Royal College of Physicians and Surgeons of Canada, Physical Medicine & Rehabilitation, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 068244   
1996 Licentiate of the Medical Council of Canada (LMCC Part II), Medical Council of Canada, Ontario, Canada, License / Membership #: 79173   
1994 Licentiate of the Medical Council of Canada (LMCC Part I), Medical Council of Canada, Canada   
1989 Advanced Coaching Certificate, York University, Toronto, Ontario, Canada   
1988 Fitness Assessment & Exercise Counseling Certificate, York University, Toronto, Ontario, Canada   
2. EMPLOYMENT   
Current Appointments   
2016 - present Adjunct Associate Professor, Department of Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2016 - present Associate Graduate Faculty Member, Rehabilitation Sciences Institute, University of Toronto, Toronto, Ontario, Canada   
2016 - present Professor, Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
Cross Appointment and SGS Associate Member with the Institute   
2015 Apr - present Senior Scientist, Neural Engineering and Therapeutics Team. Neural Engineering and Therapeutics Team, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Division of Physical Medicine and Rehab, Medicine, University of Toronto, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Physical Medicine and Rehabilitation, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada   
2014 - present Medical Lead, Spinal Cord Rehabilitation Program, Physical Medicine and Rehabilitation, UHN -Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
The Physician Leader, Spinal Cord Rehabilitation Service will provide medical leadership in the interest of quality care, education, research and advocacy. The Lead Physician will provide advice and guidance to support optimal operational and strategic performance.   
2011 - present Adjunct Assistant Professor, Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2011 - present Active Medical Staff, Dept of Physical Medicine & Rehabilitation, University Health Network, Toronto, Ontario, Canada   
2011 - present Physiatrist, Brain & Spinal Cord Rehabilitation Program, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2010 - present Associate Member, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada   
Previous Appointments   
HOSPITAL   
2000 - 2012 Manager, Bone Density Lab, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
RESEARCH   
2007 - 2015 Mar Scientist, Neural Engineering and Therapeutics Team. Toronto Rehabilitation Institute, Spinal Cord Rehabilitation Program, Toronto, Ontario, Canada   
UNIVERSITY - CROSS APPOINTMENT   
2010 - 2014 Jun Assistant Professor, Institute of Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
UNIVERSITY - RANK   
2007 - 2014 Assistant Professor, Division of Physiatry, Medicine, University of Toronto, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
NATIONAL   
Received   
  
2014 Oct Education Category Award Winner: 2nd Place, Presenter, 6th National SCI Conference, Toronto, Ontario, Canada. (Distinction)   
Title: Moving from the E-scan Atlas to Action: Development of a SCI Rehabilitation Manifesto   
Authors: Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D.   
Description: Certificate of achievement and opportunity to do a podium presentation at the conference.   
2014 Jun Original Research Contest Award Winner: 3rd Place, CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada. (Research Award, Specialty: PM&R)   
Title: Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies?   
Authors: Craven BC, Zeng L, Farahani F, Hitzig SL.   
  
LOCAL   
Received   
  
2014 May Division of Physiatry Achievement Award 2013, Division of Physiatry, Department of Medicine, University of Toronto, Toronto, ON, Canada. (Distinction)   
Description: This award is given to an individual staff member in the Division of Physiatry for exceptional service towards the development and growth of the Division of Physiatry at the University of Toronto. I was the inaugural award recipient.   
  
Nominated   
  
2017 Jun DoM Eaton Scholar Researcher of the Year, University of Toronto-Wightman-Berris Academy, Toronto, Ontario, Canada. (Research Award)   
The Eaton Scholar Researcher of the Year, which recognizes a member of the Department of Medicine who has demonstrated sustained excellence as a scientist and role model over several years (7 years or more with the DoM).   
  
Teaching and Education Awards   
LOCAL   
Received   
  
2016 May Clinician Award and Leader Award, UHN: Toronto Rehabilitation Institute, Toronto, Ontario, Canada. (Postgraduate)   
The award is for Contribution to Student and Professional Education at Toronto Rehab.   
  
Student/Trainee Awards   
INTERNATIONAL   
Received   
  
2013 Nov Poster Competition Award Winner, Fourth Place, PM&R, Faculty Research Supervisor, Awardee Name: Dance, DL. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
2012 May WMS Fellowship Award, Awardee Name: A. Mayo. World Muscle Society, Perth, Australia   
Travel award. Total Amount: 500 EUR   
2011 Dec - 2013 Dec Postdoctoral Fellowship Award, Awardee Name: Masae Miyatani. Craig H. Neilsen Foundation, Encino, California, United States   
Postdoctoral Fellowship Salary Support & Small Operating Fund. Total Amount: 135,000 USD   
  
NATIONAL   
Received   
  
2014 Jun Resident Research Award Winner: 3rd Place, PM&R, Resident Research Supervisor, Awardee Name: Fortin C. CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada   
Title: Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It?   
Authors: Fortin C, Voth J, Jaglal S, Craven BC.   
2012 Jan - 2014 Jan Canadian Urologic Association Scholarship Fund Award, Awardee Name: Blayne Welk. Canadian Urologic Association, London, Ontario, Canada   
2011 Jul - 2013 Jun Postdoctoral Fellowship Award, Awardee Name: Sander L. Hitzig. Ontario Neurotrauma Foundation (ONF) & Rick Hansen Institute (RHI), Toronto, Ontario, Canada   
Salary Support for Mentee, Capacity Building Award. Total Amount: 130,000 CAD   
  
LOCAL   
Received   
  
2013 Nov Abstract Competition Senior Resident Award Winner, First Place, Faculty Research Supervisor, Awardee Name: Dance, DL. PM&R Resident Research Day 2013, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 - present Ad-Hoc Member, Pharmacy and Therapeutics Committee, UHN, Toronto Rehabilitation Institute   
2014 Dec - present Member, Scientific Advisory Committee, Osteoporosis Canada   
2011 - present Member, Advisory Committee, Ontario Spinal Cord Injury Research Network   
2010 - present Member, Academy of Spinal Cord Injury Professionals (ASCIP), 20-0000321   
2010 - present Member, International Spinal Cord Society (ISCOS)   
2007 - present Member, Paralyzed Veterans Of America (PVA)   
2002 - present Member, American Spinal Injury Association (ASIA)   
2002 - present Member, International Society of Clinical Densitometry (ISCD), 131846   
2001 - present Member, American Society of Bone and Mineral Research (ASBMR), 104003   
1999 - present Member, Ontario Medical Association (OMA), 0660837   
1998 - present Member, Canadian Association of Physical Medicine and Rehabilitation (CAPMR), 520797   
1994 - present Associate Member, Association of Academic Physiatrists (AAP), 20392   
1994 - present Member, Canadian Medical Association (CMA), 104675   
1994 - present Member, Canadian Medical Protective Association (CMPA), 987589   
1994 - present Member, College of Physicians and Surgeons of Ontario (CPSO), 068244   
2012 - 2016 Member, American Congress of Rehabilitation Medicine, 11837-1   
  
Administrative Activities   
INTERNATIONAL   
American Congress of Rehabilitation Medicine (ACRM)   
2013 - 2014 Member, Pre-Course Planning Committee, 91st Annual Meeting, October 2014, Toronto, Ontario, Canada.   
  
International Spinal Cord Society (ISCoS)   
2014 Dec 20 International SCI Fracture History Extended Data Set Working Group   
2014 Dec 13 International SCI Endocrine and Metabolic Extended Data Set Working Group   
  
NeuroRecovery Network   
2013 Apr - 2014 May Member, Health Committee, Louisville, Kentucky, United States.   
  
Wings For Life   
2014 Jul 1 - present Member, SCI Clinical Trials Toolbox (SCITT) International Working Group, Faculty Development   
The goal of the clinical trials implementation group: it to convene a group with hands-on experience in SCI trials to produce SCITT (guideline recommendations and a tool box for SCI clinical trials (IST/IIT). Working Group Members include Cathy Craven, Armin Curt, Jane Hsieh, Linda Jones, Suhkvinder Kalsi-Ryan; Steve Kirshblum, and Allan Levi (AL).   
  
NATIONAL   
Allergan Medical Affairs   
2013 Sep 7 Member, Multi-Indication Advisory Board, Toronto, Ontario, Canada.   
  
Canadian Association of Physical Medicine & Rehabilitation (CAPMR)   
2016 Jul 1 - 2017 May 31 Member, 65th Annual Meeting Planning Committee, Faculty of Medicine, Dept of Medicine, Toronto, Ontario, Canada.   
Planning of the May 25, 2017 9:00am to 12:00pm Fat, Muscle, Bone and Exercise.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, St. John’s, Newfoundland and Labrador, Canada.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, Vancouver, British Columbia, Canada.   
2012 Jul - 2016 Jun Chair, Research Committee, Canada.   
As Chair of the Research Committee for CAPMR 61st-64th Annual Meetings, my duties include scientific program development, vetting of abstract submissions, creation of paper, abstract and poster award criteria, facilitating a fair national adjudication process and distribution of awards. In addition, the Research Chair sits on the editorial board of International Journal of Physical Medicine & Rehabilitation, ensures the annual meeting products are suitable and in the correct format for publication in the journal and provides commentary and journal input as appropriate.   
2010 - 2012 Member, Scientific Planning Committee, CAPMR 60th Annual Meeting, Toronto, Ontario, Canada.   
2009 - 2012 Member, Research Committee, Canada.   
  
Osteoporosis Canada   
2016 Sep 16 - 2018 Sep Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
OC SAC Research Committee.   
2014 Dec 1 - 2016 Dec 1 Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
Scientific Advisory Committee.   
  
Rick Hansen Institute   
2016 Nov - present Sub-Committee Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
Decision Support Working Group.   
2015 Aug - present Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
2013 Aug - present Member, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
The purpose of the Care Advisory Committee is to identify gaps in knowledge regarding SCI clinical management that are needed to advance the field and to implement existing evidence into practice. The Advisory Committee will make recommendations and assist in the development of an RHI Care Program that will fill gaps in clinical knowledge and promote best practices to optimize and standardize care delivery for Canadians who are newly injured as well as those living with an existing SCI. The recommendations of the committee will align with the vision and mission of RHI and as outlined in the 2013-2018 Business Plan.   
2008 - present Member, Rick Hansen Spinal Cord Injury Registry (RHSCIR) Scientific and Executive Committee, Canada.   
2015 Dec - 2016 Apr Member, Planning Advisory Committee PRAXIS Meeting, Vancouver, British Columbia, Canada.   
The purpose of the Planing Advisory Committee is to develop a novel conference agenda that advances the field of spinal cord injury and addresses the Valley 1 and Valley 2 gaps in the field.   
2009 - 2012 Site Investigator, Rick Hansen Spinal Cord Injury Registry (RHSCIR), Canada.   
  
Toronto Rehabilitation Institute   
2010 - 2012 Co-Chair, 5th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
  
UHN - Toronto Rehabilitation Institute   
2015 - 2017 Co-Chair, 7th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
2012 - 2014 Co-Chair, 6th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr 24 - 2016 Apr 25 Member, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
2016 Apr 24 - 2016 Apr 25 Co-Chair, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
  
PROVINCIAL / REGIONAL   
Integration of Health Services and Supports (Self-Management, Primary Care, Rehabilitation) in Persons with Spinal Cord Injury (PRISM Project)   
2012 - 2015 Member, Steering Committee, Ontario, Canada.   
Steering Committee.   
  
Ontario Spinal Cord Injury Research Network (OSCIRN)   
2011 - present Member, Advisory Committee, Toronto, Ontario, Canada.   
Scientific Advisory Boards.   
  
LOCAL   
Division of Physical Medicine and Rehabilitation   
2015 Feb 3 Member, CMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Postgraduate MD, Toronto, Ontario, Canada.   
7 hours of applicant reviews   
12 hour interview and selection process.   
2015 Jan 27 Member, IMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
6 hours CV review   
5 hours interview and selection process.   
  
Toronto Rehabilitation Institute   
2011 - 2014 May Executive Committee, TRIMSAFPA, Toronto, Ontario, Canada.   
2011 - 2012 Executive Committee, Toronto Rehabilitation Institute Rehab Medicine Associates (TRIRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
  
UHN - Toronto Rehabilitation Institute   
2015 Apr 1 - present Director, Central Recruitment Implementation Toronto Rehabilitation Institute, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
I am responsible for clinical, administrative and financial oversight of implementation of Central Recruitment(CR) and a revitalized Research Volunteer Pool (RVP. The outcomes of this project have clinical and research accountability on our corporate score card. Aim: 100% of Toronto Rehab Inpatients are approached regarding research participation by a patient research liason, the number of trials which fail due to inadequate accrural is reduced, a new revistalized RVP is implemented with migration of existing databases in to the RVP.   
2014 Jul 1 - present Medical Lead, Brain and Spinal Cord Rehabilitation Program, Lyndhurst Centre, Toronto, Ontario, Canada.   
2013 - present Executive Committee, University Health Network Rehab Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend 8 monthly meetings of the Executive Committee and 4 meetings of UHNRMA per year. Activities include: developing an internal accountability framework, and participating in annual internal review of members’ academic productivity, developing and ensuring adherence to projected budget and related practice plan business activities.   
2015 Jan - 2015 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2014 Nov - 2014 Dec Chair, Innovation Fund Internal Review Process, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
2014 Jan - 2014 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Nov - 2015 Jun Executive Committee Member, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
2013 Jan - 2013 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan - 2012 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
UHN -Toronto Rehabilitation Institute   
2015 Feb 20 Member, Affiliate Scientist Appointment Committee, Toronto, Ontario, Canada.   
Meeting Preparation and attendance.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr Invited Attendee, The Wearable Cameras Stakeholder Committee Meeting, Toronto, Ontario, Canada.   
  
UHN-Toronto Rehabilitation Institute   
2017 Aug 16 - present Ad-Hoc Member, TRI P&T Subcommittee, Toronto, Ontario, Canada.   
2016 Apr 1 - 2018 Mar 31 Director, Central Recruitment and Research Volunteer Pool, Toronto, Ontario, Canada.   
2015 Feb 23 - 2015 Feb 24 Member, Spinal Cord Rehab Program, Value Stream Mapping (VSM), Toronto, Ontario, Canada.   
Meeting attendance.   
2013 - 2014 Member, NET Team Scientist Search Committee, Department of Physical Therapy, Toronto, Ontario, Canada.   
  
University Health Network Rehab Medicine Associates (UHNRMA)   
2014 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
University of Toronto   
2016 Jun - present Member, Division Research Leads Committee, Department of Medicine, Toronto, Ontario, Canada.   
Quarterly Meetings of the Committee. The Committee aims to aid in the implementation of the Department of Medicine Research Strategic Plan.   
2016 - present Chair, PM&R Division Research Committee, Toronto, Ontario, Canada.   
Develop research matrix. Promote research collaboration across the division, revise research day format and develop mechanisms within the department of medicine to communicate research success.   
2015 Sep - present Member, Division of PM&R Executive Committee, Department of Medicine, Toronto, Ontario, Canada.   
This is an Advisory Committee to the Division Chief and assist with the Strategic Plan Implementation.   
2006 - present Member, Gender Issues Committee, Department of Medicine, Toronto, Ontario, Canada.   
Attend quarterly meetings and events.   
2016 Jun 24 Contributor, Division of PM&R Mini Retreat, Toronto, Ontario, Canada.   
Research Committee strategic plan update.   
2015 Feb - 2015 Oct Member, Strategic Planning Oversight Committee, UofT Division of PM&R, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Faculty Development, Toronto, Ontario, Canada.   
Co-Chair of the Research pillar of the strategic planning process.   
2013 Oct - 2013 Dec Member, DDD Physiatry Search Committee, Department of Medicine, Toronto, Ontario, Canada.   
2013 Apr 13 Contributor, External Review, Division of Physiatry, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
2012 - 2015 Research Portfolio Lead, Executive Steering Committee, Division of Physiatry, Toronto, Ontario, Canada.   
Participate in monthly meetings of the Executive, 6-8 months per year, participate in planning retreats and educational interventions, and assume responsibility of the research portfolio as outlined in our Division’s strategic plan.   
Quarterly Newsletter Contributions: 30.   
2005 - 2013 Member, Grand Rounds Planning Committee, Division of Physiatry, Toronto, Ontario, Canada.   
  
Peer Review Activities   
EDITORIAL BOARDS   
Member   
2012 Oct - present International Journal of Rehabilitation Medicine   
  
MANUSCRIPT REVIEWS   
Reviewer   
2016 Sep 20 - 2016 Nov 30 BMJ Open-2016-014331, Number of Reviews: 1   
Ad Hoc Journal Reviewer   
2013 - present International Spinal Cord Society, Neurorehabilitation & Neural Repair, Number of Reviews: 1   
2012 Jan - present Osteoporosis International, Number of Reviews: 3   
2010 Nov 18 - present Disability and Rehabilitation, Number of Reviews: 4   
2005 - present American Academy of Physical Medicine and Rehabilitation, Archives of Physical Medicine and Rehabilitation, Number of Reviews: 5   
2005 - present Unites States Department of Veterans Affairs, Journal Of Rehabilitation Research and Development, Number of Reviews: 3   
2004 - present American Society of Spinal Cord Injury Professionals, Journal of Spinal Cord Medicine, Number of Reviews: 23   
2004 - present International Spinal Cord Society, Spinal Cord, Number of Reviews: 6   
2016 Jan 11 Clinical and Investigative Medicine, Number of Reviews: 1   
2015 Dec Spinal Cord, Spinal Cord, Number of Reviews: 1   
Editor, Author, Reviewer   
2013 Mar - 2014 Sep Journal of Spinal Cord Medicine, Number of Reviews: 6   
  
PRESENTATION REVIEWS   
Research Day Adjudicator   
2012 Nov 16 University of Toronto, Division of Physiatry, Resident Research Day, Toronto, ON. Number of Reviews: 14   
  
ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Adjudicator   
2013 Mar - 2013 May Canadian Association of Physical Medicine & Rehabilitation, 61st Annual Scientific Meeting, Montreal, QC. Number of Reviews: 58   
2012 Mar - 2012 Jun Canadian Association of Physical Medicine & Rehabilitation, 60th Annual Scientific Meeting, Toronto, ON. Number of Reviews: 46   
  
ANNUAL REVIEW OF ALL TRI SCIENTISTS   
Reviewer   
2017 Feb 10 UHN-Toronto Rehabilitation Institute, Number of Reviews: 15   
  
CIHR PILOT SCHEME   
Internal Grant Reviewer   
2016 Mar 30 UHN: Toronto Rehabilitation Institute, Formulation of a Reliable Clinical Decision Role for the diagnosis of myofascial pain syndrome, Number of Reviews: 1   
  
EXTERNAL REVIEW   
Member   
2014 Jan - 2015 May Funded by Ontario Neurotrauma Foundation & Rick Hansen Institute, Canadian Best Practice Guidelines for the Treatment of Neuropathic Pain after Spinal Cord Injury   
  
INTERNAL ICORD ENDOWED CHAIRS REVIEW   
Reviewer   
2017 Apr 6 UHN-Toronto Rehabilitation Institute, ICORD - Co Reviewers:   
Rob Brownstone, Suzie Charlifeu, Armin Curt, James Fawcett, Ruediger Rupp, Number of Reviews: 5   
  
INTERNAL SCIENTIFIC REVIEW   
Reviewer   
2016 Oct 31 UHN-Toronto Rehabilitation Institute, Avril Mansfield, Number of Reviews: 1   
  
INTERNAL SCIENTIST REVIEW   
Reviewer   
2016 Aug 17 - 2016 Dec 31 UHN-Toronto Rehabilitation Institute, Number of Reviews: 3   
2016 Jan - 2016 Dec Toronto Rehab Research Institute, Number of Reviews: 2   
  
RESPONSIBLE FOR ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Research Committee Chair   
2014 Mar - 2014 May Canadian Association of Physical Medicine & Rehabilitation, 62nd Annual Scientific Meeting, St.John’s, Newfoundland.   
  
Reviewed 55 abstracts; 12 removed; 3 papers. Adjudication process oversight- 25 hours. Vetting of conference materials- 8 hours. Number of Reviews: 58   
Research Committee Chair   
2015 Jan 15 - 2015 Feb 20 Canadian Association of Physical Medicine & Rehabilitation, 63rd Annual Scientific Meeting, Vancouver BC   
  
Reviewed 90 abstracts; 11 papers of the year submissions, Number of Reviews: 90   
  
WORKSHOP REVIEW COMMITTEE   
Reviewer   
2014 Feb 22 6th National SCI Conference, 6th Annual SCI Conference, Toronto, ON, Number of Reviews: 13   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2016 May 11 External Stakeholder Advisory Committee. A wearable sensor for monitoring hand function at home.   
Four external stakeholder committee meetings to advise the investigators (Dr. Zariffa) over an 18-month time period.   
  
CHAIR   
2015 May 23 Scientific Commitee. 2015 63rd Annual CAPMR Scientific Award Session. CAPMR, Vancouver, British Columbia, Canada.   
  
CONSENSUS MEETING   
2016 Oct 5 - 2016 Oct 6 Co-Leader. ONF REPAR RIISC Consensus Meeting. Ontario Neurotrauma Foundation-REPAR, Toronto, Ontario, Canada. Supervisor(s): Craven BC, Gagnon D.   
Aim to reduce identifiable and modifiable precursors to fracture, diabetes and heart disease and the related handicap with innovative community-based rehabilitation solutions through collaboration with community partners & patient representatives.   
A 3-year plan containing research goals, team infrastructure, financial accountability was developed.   
  
INTERNATIONAL WORKING GROUP   
2016 Sep - 2018 Apr Member. Spinal Cord Injury Trial Toolkit (SCITT Working Group). Wings For Life. Supervisor(s): Jane Hsieh. Collaborator(s): Jones L, Curt A, Kalsi-Ryan S, Steeves J, Levia A.   
The mission or vision of this group is to develop the following five concept documents:   
1. Clinical Trial Matcher   
2. Website Functionality Map   
3. Clinical Trial Curatorial Criteria List   
4. SCI Clinical Trial Expert Site Qualification Criteria   
5. Patient Self-Report Classificator.   
  
INVITED MEETING   
2016 Nov 23 Attendee. Primary Care Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Joseph Lee and Jamie Milligan. Collaborator(s): 92 meeting attendees including our Deputy and Minister of Health and Health Systems and Health Policy Leaders as well as Spinal Cord Injury Stakeholders.   
1.To direct research, education and innovation in primary and community care for SCI consumers from multiple stakeholders’ perspectives   
To shape the direction and implementation of policy and SCI consumer care   
To further develop a community of practice and learning collaborative to advance primary and community care for SCI consumers.   
2016 Nov 11 Attendee. Canadian Spinal Cord Injury Urohealth Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Blayne Welk. Collaborator(s): 19 meeting attendees at this full day meeting of whom 16 were Urologists and 3 were specialists in Physical Medicine and Rehabilitation.   
1. Review the current Canadian landscape in terms of SCI bladder care and available resources.   
2. Review and discuss standards of care and treatment options for SCI related bladder dysfunction.   
3. Establish guiding principles for CUA neurogenic bladder guidelines (primarily focused on bladder health maintenance and treatment modalities)   
4. Establish potential urohealth indicators for the national SCI-HIGH program (developed through the Rick Hansen Institute)   
5. Determine if there are achievable research goals in the field of spinal cord injury urohealth that should be cooperatively pursued by Canadian researchers.   
2016 Nov 4 Attendee. Spinal Cord Injury Pain Summit. Ontario Neurotrauma Foundation, Toronto, Ontario, Canada.   
2016 Nov 4 Attendee. Neuropathic Pain Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Eldon Loh.   
2016 Nov 1 Attendee. Research Executive Committee Meeting. UHN-Toronto Rehab, Toronto, Ontario, Canada.   
2015 Oct 24 Attendee. RHI Network Meeting. Rick Hansen Institute, Toronto, Ontario, Canada.   
Network meeting to inform the 2016-2023 strategic plan.   
  
INVITED MEETING INTERNATIONAL   
2015 May 17 Invitee. ISCRR/ONF/RHI SCI and Community Care Meeting. Montreal, Quebec, Canada. Collaborator(s): J. Lee, J. Milligan, A.Burns, P. Athanasopoulos.   
To initiate a discussion on the challenges, research gaps an strategies to improve SCI care in the community. The meeting workshop will identify opportunities for partnership and a series of next steps to advance the primary care clinical and research agenda.   
  
INVITED MODERATOR   
2015 May 15 Moderator. Clinical Trials and Clinical Practice Papers. Montreal, Quebec, Canada.   
Moderator of 1.5 hour session with 6 presentations.   
  
MEMBER   
2016 Sep - 2017 Jan Research Committee Chair. 65th Annual CAPMR Scientific Meeting. CAPMR, Niagara Falls, Ontario, Canada.   
Recruit keynote speaker and establish an agenda for a hall day of conference content related to understanding and managing Endocrine Metabolic Disease Risk.   
  
NATIONAL CONSENSUS MEETING   
2015 Oct 24 - 2015 Oct 25 Co-Chair. Prioritization of Spinal Cord Injury Rehabilitation Domains using the Hanlon Method. Toronto, Ontario, Canada. Collaborator(s): Hitzig SL, Flett H, Farahani F, Alavinia M.   
National Consensus meeting to establish a comprehensive framework of structure, process and outcome indicators intended to improve SCI Rehabilitation standards in Canada by 2020. 22 representatives from relevant stakeholder organizations were invited to participate in ranking and validating rehabilitation domains.   
  
NETWORK MEETING   
2017 May 12 - 2017 May 14 Attendee. Combined Canadian Spinal Cord & Ontario Spinal Cord Injury Research Network Meeting: Regeneration, Rehabilitation & Reintegration. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada.   
This meeting aims to drive knowledge translation through strengthening the ties between clinical based science and consumer interest.   
  
POLITICAL ADVOCACY   
2015 Aug 6 Invited Reviewer. Technical Review of draft proposed automobile insurance regulations. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Best S.   
A 3 hour consultation regarding the CAT definitions and the proposal to combine attendant services and medical rehab into one benefit.   
2015 Jun 11 Invited Speaker. Ontario SCI Solutions Alliance Presentation to the Ministry regarding Auto Insurance Reforms. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P.   
An overview of the incidence and prevalence of traumatic spinal cord injury and the associated medical and economic burden were presented.   
Health care utilization and rehab resources were costed in order to highlight that the proposed changes to Bill 91’s universal funding threshold is insufficient to cover the lifetime cost of care for patients with traumatic spinal cord injury and that the proposed changes to Bill 91 are not based on current cost of care and do not support the most vulnerable patients with complex needs. Further the proposed cuts to benefits for those with traumatic spinal cord injury will not reduce the insurance premium burden across the province. A request for the SCI Solutions Alliance to assemble a panel of experts to support the Ministry of Finance was tabled.   
2015 May 20 Author. Ontario SCI Solutions Alliance. Ministry of Health, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Tator C, Burns A, McGillivray CF, Yap A, Adair B, Bassett-Spiers K.   
Provision of Expert content or inclusion in a letter of advocacy regarding the financial services commission of Ontario.   
  
SCI SYMPOSIUM   
2017 Apr 6 - 2017 Apr 7 Invited Attendee. SCI Symposium in Honour of the Retirement of Founding Director, Dr. John Steeves. ICORD, Vancouver, British Columbia, Canada.   
  
STRATEGIC PLANNING SESSION   
2017 Apr 5 Invited Attendee. SCITT-STUDI Joint Strategic Meeting. Wings For Life, Vancouver, British Columbia, Canada.   
  
C. Academic Profile   
1. TEACHING PHILOSOPHY   
My teaching philosophy is predicated upon the assumption that learners are curious, and that learning is a process similar to starting a campfire that in a safe and enthusiastic environment, with appropriate resources, a student’s inquisitive nature will ignite the fire, and that their enthusiasm and perceived safety will stoke the fire and advance learning over time, as the fire burns.   
  
Throughout my interactions with learners I try to convey and engender a learner’s enthusiasm for a topic, while creating a safe environment in which there are no dumb questions, and a learner can take away as much as they are prepared to digest at any one time. When teaching I try to:   
  
a) Provide objectives or articulate an agenda for each presentation or learner interaction   
b) Provide a “real world” perspective on clinical practice, it’s nuance and pitfalls   
c) Emphasize the value of academic scholarship with concrete examples and use of referenced works   
d) Discuss common and serious ethical dilemmas   
e) Provide learners with key take home messages, preferably ones that are actionable   
f) Drive future inquiry beyond the days presentation, by providing an audit trail of additional resources and mechanisms for future or ongoing dialogue on an issue through blogs, learning groups, subsequent discussions etc.   
  
As an instructor in a formal teaching environment, I try to implicitly communicate my expectations of the learners through passion for continuous inquiry, advance preparation of materials, arriving and starting on time, dressing appropriately for the setting, and responding to feedback regarding timing, content and format of my teaching/presentations. I willing provide superior or remedial support for individuals who are engaged and making a concerted effort to integrate knowledge into their learning. I also facilitate advance preparation and rehearsal for presentations in public forums.   
  
The bulk of my teaching efforts are large group continuing education events with an inter professional audience, interactive workshops for an inter professional audience of regulated health care professionals with expertise in rehabilitation or 1:1 teaching of postgraduate MD or Postdoctoral fellows interested in rehabilitation science. One of the greatest joys in my day to day activities is to engage in “academic banter” with graduate students and post doctoral fellows, and to witness the transformation in their thinking processes and communication of their thinking over the course of their training. I derive great personal satisfaction from seeing learners succeed and carry on espousing enthusiasm for advancing the field after they have left my teaching environment.   
  
2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT   
This CPA dossier was developed to support my promotion to Associate Professor based on Creative Professional Activity with an emphasis on Exemplary Professional Practice. Physiatry is the medical specialty uniquely focused on “function and recovery” following disability. My interests and expertise are in optimizing function, facilitating recovery and reducing morbidity after spinal cord injury (SCI). SCI results in diverse, often devastating motor, sensory and autonomic impairments including: absence or limitations in one’s involuntary ability to breathe, regulate blood pressure and temperature, and voluntary ability to dress, bathe, toilet, eat, or move about one’s home or community. These impairments have lifelong catastrophic implications for the survivor, their long-term health and quality life. My passions for applied physiology, care of the “whole person” with SCI, and belief in the value and effectiveness of interprofessional care have influenced my career directions, and choice of creative professional activities.   
  
I was appointed as Assistant Professor of Medicine in the Division of Physiatry in January of 2007. In Canada, there are fewer than 15 Physiatrists with Clinician Scientist role profiles across our specialty (i.e., Stroke, MS, SCI, Brain Injury, etc). At the University of Toronto, I have had the opportunity to promote exemplary practices and lead the profession through: 1) sustained clinical and scholarly activities at Toronto Rehab, an internationally recognized premier rehabilitation centre, during a time in the field characterized by evolving science and technology; 2) development of new concepts and clinical practices related to sublesional osteoporosis (SLOP) and multimorbidity (MM) following SCI; 3) establishing myself as a nationally and internationally recognized expert in SLOP; and, 4) advancing future health service delivery through clinical and scientific leadership in the conception, design, and implementation of the 1st to 6th National SCI Conference (www.sciconference.ca) and publication of the first Atlas of Canadian SCI Rehabilitation.   
  
As Scientific Co-Chair, I have led the growth and expansion of the National SCI Conference from a small event to a highly sought after large event with international impact. The event now routinely attracts 400 attendees and international keynote speakers. Award winning papers and 100 accepted abstracts are now featured in a special issue of the Journal of Spinal Cord Medicine for which I am the issue editor. .   
  
At the time of appointment in 2007, my primary focus was on describing changes in lower extremity bone mass and bone quality after spinal cord injury. I later developed a clinical definition for SLOP to describe the rapid 30-50% decline in hip and knee region bone density in the first 18-24 months post injury and the resulting lower extremity fracture risk. My subsequent efforts aimed to help the field identify individuals with SCI, low bone mass, and high fracture risk who require therapy. This led to systematic reviews describing, and intervention studies determining, which therapeutic interventions are effective for treatment of those with SLOP fracture risk. Concurrent advances in bone physiology, the muscle-bone unit and Wnt signaling, lead to my conduct as Primary Investigator of intervention studies evaluating the efficacy of medical therapy (RCT - oral Risedronate), and rehabilitation therapies (proof of principle - standing and whole body vibration) for augmenting lower extremity bone mass and reducing risk of lower extremity fragility fracture.   
  
Over time, I have become fascinated by the related fates of bone, muscle and adipose tissue after SCI, and their roles in precipitating secondary health conditions. Secondary health conditions are defined as those conditions the individual develops as a direct consequence of SCI, or occurs at increased frequency among individuals with SCI, when compared to peers in the general population. These tissue changes include: declines in hip and knee region bone mass and bone quality; reductions in muscle cross-sectional area and alterations in fibre type (preponderance of Type IIb fibres); and, increases in abdominal, visceral and intramuscular fat. These events combine to directly or indirectly precipitate distal femur fracture, pressure sores, a proinflamamtory state, metabolic syndrome, and cardiovascular disease. My most recent primary and collaborative research has focused on preservation of tissue, and optimization of residual tissue function through application of medical, neurorecovery and neurorehabilitation strategies. Fractures, heart disease and pressure sores have become my “targets for cure”, as the links between changes in body composition and secondary health condition development have become apparent.   
  
There are 17,000 people living with SCI in Ontario, with 600 new traumatic injuries each year. My knowledge and expertise in applied clinical physiology, and prior training in epidemiology, has led to leadership opportunities, longitudinal cohort studies and publications describing the health and quality of life implications of multimorbidity among Ontarians living and aging with chronic SCI. I have co-led an inter-provincial working group of 28 clinicians and scientists from 11 member institutions in Ontario and Quebec entitled “SCI IMPACT” whose aim is to describe, characterize and ameliorate the health, economic and quality of life impacts of SCI for the individual, his/her family and the health system.   
  
Although survival and life expectancy after SCI have increased, most individuals 10 years post SCI report a mean of 7 concurrent secondary health conditions per year, with one in four hospitalized each year. The impact of SCI on the individual, his/her family, and the health system is greatest in terms of medical complexity, health care utilization and cost during the first two years after injury, and the ten years prior to death. SCI costs the Ontario government over $1.38 billion per year, with the direct mean costs of rehabilitation ranging between $112,000- $120,000 CDN per person (2003-2006). The clinical challenges associated with managing these complex SCI patients with MM in an ambulatory setting has enticed me to describe current health services, publish clinical care paradigms and advocate for the education and training of health care providers, as a means of prescribing change in the field. Orison Swett Marden suggests that “the opposition you have encountered and the courage with which you have maintained the struggle against overwhelming odds” is the best measure of one’s success. Using this framework, I have succeeded in promoting exemplary practice through design and dissemination of the E-scan Atlas (http://www.rickhanseninstitute.org/en/publications/escan)   
The E-Scan atlas content is intended to advance practice, guide program self evaluation, advocate for policy change, and articulate the future research agenda with the aim of transforming practice by 2020. The atlas is the culmination of six years of work, from the time of atlas conception, through acquisition of funding, building team infrastructure, collecting, validating and reporting results of the related scoping review of rehab service delivery nationally and building collaborative partners to synthesize and vet the data. The process necessitated collaboration with 46 co-authors, 86 collaborators and 15 tertiary SCI rehabilitation centres across the nation. Data analysis and atlas production required 15 hours per week of my time for a two year period to realize the final product. To date, 750 print copies and 460 CD versions have been distributed nationally and internationally. In addition, I recently received funding from the Ontario Neurotrauma Foundation to host a national consensus meeting to develop and disseminate a Manifesto containing strategies to reduce the incidence and severity of fractures, pressure sores and heart disease after SCI.   
  
Individuals with the MM of SCI, continue to challenge current thinking and single disease paradigms, which demand unique health system solutions, encompassing physiatric principles, and addressing SCI specific needs. In particular, the field’s ability to train and retain academic Physiatrists capable of facilitating practice change and meeting the service demands dictated by MM is of paramount importance. In the future, I plan to establish a highly sought after SCI clinical fellowship, continue to explore the therapeutic potential of interactions between muscle and bone for prevention and treatment of SLOP leadership of a multicentre intervention trial, and to explore the role of community rehab SWAT teams in reducing SCI related morbidity and hospitalization rates.   
  
Through creative professional activities, I have become a national leader in SCI rehabilitation practice, a recognized expert in SLOP and a strong proponent of academic Physiatry through conduct of ethical and scientifically sound practices, which are reflected in my publications; peer reviewed funding; external peer reviews; student mentorship; knowledge translation activities; administrative leadership; and national/international speaking engagements. Specifics related to these activities are outlined below under the following three themes:   
1. Diagnosis and Medical Rehabilitation of SLOP   
2. Delineating and Mitigating MM Among Individuals with Chronic SCI   
3. Analysis and Transformation of SCI Healthcare, Services and Systems.   
  
D. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2017 Apr - 2019 Mar Co-Investigator. Exploring the Impact of Falls on Life after Spinal Cord Injury. Craig H. Neilsen Foundation. Psychosocial Research Grants. PI: Musselman K. Collaborator(s): Oosman S, Yoshida K, Craven BC. 200,000 USD. [Grants]   
The goal of this project is to understand the causes and consequences of fear of falling and falls in individuals with SCI, as well as increase awareness about the related issues in order to develop an effective fall prevention intervention specific to the SCI population.   
  
2016 Oct Co-Investigator. Exploring the causes and consequences of falls across the continuum of care in Canadians with spinal cord injury. Canadian Institutes of Health Research (CIHR). PI: Musselman K. Collaborator(s): Craven BC, Yoshida K, Bostick G, Hitzig SL, Flett H, Scovil C, Jaglal S, Singh H, Kaiser A, Oosman S, Singh H. [Letter of Intent]   
  
2016 Sep - 2018 Aug Principal Investigator. Rosuvastatin for Reduction of Endocrine Metabolic Disease Risk. Craig H Neilsen Foundation. Neilsen Senior Research Grant. Collaborator(s): Nash M, Dallal K, andersen K, Giangregorio LM, Burns AS, Cheung A. 600,000 USD. [Grants]   
This was a Senior Scientist award for a multi-centre, phase I/II study evaluating the safety and efficacy of Rosuvastatin with CoQ-10 and standard dose calcium and vitamin D for augmenting bone mass and reducing inflammatory stress. This project aims to provide preliminary documentation of statin therapy efficacy and safety to inform the design and implementation of a future large-scale multi-centre, randomized, double-blinded treatment trial.   
  
2016 Jul - 2019 Jun Co-Investigator. Preventing Falls One Step at a Time: Reactive Balance Training for SCI. Ontario Neurotrauma Foundation (ONF). PI: Musselman K. Collaborator(s): Craven BC, Masani K, Mansfield A, Scovil C, Oates A, Lanovaz J. 149,866 CAD. [Letter of Intent]   
Falling is common among individuals with incomplete spinal cord injury (iSCI), with most falls occurring while walking. Falls result in injuries (e.g., broken bones), hospital readmission, and reduced participation in work and recreation. In able-bodied people, falls can be prevented by taking one or more rapid, reactive steps. People with iSCI, however, have difficulty taking the reactive steps needed to prevent a fall. Research in the elderly and people with stroke has shown that repetitive training of reactive steps in a safe environment improves this balance reaction and prevent falls. We will examine the feasibility and effectiveness of reactive step training in people with iSCI. This unconventional training may change current rehabilitation for iSCI, which presently has little emphasis on balance and fall prevention. By improving balance and reducing falls, people with iSCI will experience fewer complications (e.g., injuries), and greater recovery of function and community participation.   
  
2016 Apr - 2017 Apr Co-Investigator. Implementation Considerations for a SCI Caregiver Support Program. Craig H. Neilsen Foundation (The) (USA). Nielsen Pilot Psychosocial Research Grants. PI: Jaglal, Susan. Collaborator(s): Noonan V, Linassi G, Craven BC, Wolfe Dl, Cameron, J. 96,578 USD. [Grants]   
This study seeks to understand the various family caregiver roles and the skills needed to support individuals with spinal cord injury living in the community and to determine the challenges and type of assistance needed by caregivers when providing this care.   
  
2016 Apr - 2017 Mar Co-Investigator. Social Isolation and Loneliness on Health and Well being following post spinal cord injury. Craig H Neilsen Foundation. Neilsen Pilot Project. PI: Hitzig SL. Collaborator(s): Craven BC, Guilcher S, Bassett-Hunter R. 99,574.82 USD. [Grants]   
The purpose of this study is to better understand the role of social disconnectedness and perceived social isolation in influencing health and well-being in community-dwelling persons with spinal cord injury (SCI).   
  
2015 Nov - 2020 Nov Site Investigator. Physiological Flow of Liquids Used in Dysphagia Management. NIH. Motor Function, Speech and Rehabilitation Study Section. 2 RO! DCO11020-04. PI: Steele, Catriona Margaret. Collaborator(s): Craven BC, Burns AS. 2,576,130 USD. [Grants]   
Thickened liquids have become the most common intervention for dysphagia (swallowing impairment), yet we lack a clear understanding of how this intervention works to achieve clinical benefit. This study will provide information to guide clinicians in determining optimal levels of thickening to recommend for patients with dysphagia. This research is highly significant because it will establish a new foundation of understanding with respect to the influence of thickened liquids on swallowing. This is essential for advancing clinical practice and setting the stage for future treatment efficacy research.   
  
2015 Oct - 2016 Sep Principal Investigator. AusCan PHD Student. Ontario Neurotrauma Foundation (ONF). Mentor-Trainee Grant Agreement. 2015-RHI-ASPHD-1004. Collaborator(s): Gabison S. 23,500 CAD. [Grants]   
This is a mentor-mentee training grant.   
  
2015 Mar - 2018 Feb Co-Principal Investigator. Spinal Cord Injury (SCI) Care Indicators in Rehabilitation Project (SCI-HIGH). Rick Hansen Institute (RHI). G2015-33. PI: Craven BC & Bayley M. Collaborator(s): Flett H, Hitzig SL, Zee J. 275,000 CAD. [Grants]   
The purpose of this project is to develop rigorous methods to select, implement and evaluate care indicators. Toronto Rehabilitation Institute (TRI) scientists and clinicians will audit and develop a core set of care indicators in consultation with Canadian SCI rehabilitation experts/stakeholders and pilot these indicators for one year. The goal of this project is to set benchmarks and compare quality, safety, and efficiency of care across centres.   
  
2015 Mar - 2017 Mar Co-Investigator. Development of a Patient Reported Outcome for Bowel Dysfunction following Spinal Cord Injury. Rick Hansen Institute. Clinical Outcomes Measures Funding Competition. RHI #G2015-28. PI: Burns AS. Collaborator(s): Delparte JJ, Hitzig SL, Craven BC. 75,000 CAD. [Grants]   
Individuals with SCI and neurogenic bowel dysfunction (NBD) rate recovery of bowel function above walking as a priority for cure. The ramifications of NBD include impaired gastrointestinal motility, loss of continence, prolonged time to complete planned bowel evacuation, and a related loss of dignity. Current outcome measures fail to capture the full impact of the condition on affected individuals (e.g., employment recreation, inter-personal relationships, etc.). To address this need, a patient reported outcome (PRO) measure will be developed. The proposed PRO measure builds upon our prior qualitative studies which identified issues and challenges of living with NBD. The developed PRO measure will facilitate the future evaluation of clinical interventions intended to reduce the impact of NBD on individuals living with SCI.   
  
2015 Mar - 2015 Apr Co-Principal Investigator. Spinal Cord lnjury (SCl) Care lndicators in Rehabilitation Project. Rick Hansen Institute. Grant #2014-13. PI: Craven BC. Collaborator(s): Bayley M, Parsons D. 5,000 CAD. [Grants]   
Funding granted to facilitate production of a larger-scale proposal entitled SCI-HIGH. The project aims to align RHSCIR data elements, E-Scan data and SCI Accreditation Standards.   
  
2015 Jan - 2016 Mar Principal Investigator. Sustaining the feasibility and exploring the scalability of central recruitment strategies for patients with subacute and chronic spinal cord injuries. Ontario Neurotrauma Foundation (ONF)/Toronto Rehab Foundation. Capacity-Building Award in Spinal Cord Research. Collaborator(s): Brisbois L, Verrier MC. 37,660 CAD. [Grants]   
This project aims to explore the scalability of our inpatient central recruitment pilot study to include all of the peer review funded research at the Lyndhurst Centre.   
  
2014 Apr - 2017 Apr Co-Investigator. Bone fragility in boys with Duchenne muscular dystrophy. Physicians’ Services Incorporated (PSI) Foundation. PI: Ward, Leanne. Collaborator(s): Jaremko J, McAdam L, McMillan H, Craven BC, Ma J, Campbell P, Rudnicki M, Perkins TJ, Moher D, Rauch F, Shenouda N, Matzinger MA, Siminoski K. 170,000 CAD. [Grants]   
This prospective observational study aims to identify the incidence, prevalence and risk factors associated with spine and long bone fractures in children and young adults with Duchenne Muscular Dystrophy (DMD).   
  
2014 Jan - 2017 Dec Site Investigator. AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers. Ontario Neurotrauma Foundation (ONF). Directed Funding Initiative: VNI-ONF-Western Australia Colla. 634388. PI: Swaine J, Hayes K. Collaborator(s): Craven BC, Stacey M. 258,478.43 CAD. [Grants]   
Part A is a prospective cohort study that will identify risk factors associated with the development of a sitting acquired pressure ulcer (SAPU) or suspected deep tissue injury with acute and chronic SCI. Part B will identify and monitor individuals who develop a SAPU to measure health related quality of life impact and to quantify treatment costs. Subjects will be recruited from 10 sites – five state SCI units in Australia and five SCI rehab hospitals in Canada. We intend to recruit 480 subjects, 240 with acute SCI and 240 with chronic SCI (>10 years post injury). The budget shown is the local site budget.   
  
2013 Sep - 2013 Dec Principal Investigator. SCI Rehabilitation E-Scan: Moving from Blueprint to Action. Ontario Neurotrauma Foundation (ONF). Collaborator(s): Balioussis C, Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 55,000 CAD. [Grants]   
The purpose of the grant was to fund an initiative to ensure that the recommendations derived from the E-Scan Atlas were translated into actions effecting necessary change in SCI rehabilitation research, practice, and policy. The course of action decided upon by the E-Scan Investigative Team was to: (a) hold a consensus meeting with national and international experts. The aim of the meeting was to extend the dialogue regarding rehabilitation priorities in Canada that began with the E-Scan Atlas, and (b) create a SCI Rehabilitation “Manifesto” prescribing specific actions to bring about change in research, practice, and policy related to SCI rehabilitation.   
  
2013 Jan - 2014 Jul Research Project Supervisor. Exploring the Associations between Daily Blood Pressure Fluctuations and Cardiovascular Risk among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Physicians’ Services Incorporated (PSI) Foundation. PSI Resident Research Grant. R12-45. PI: Dance, Derry. Collaborator(s): Ditor D, Hassouna M, Craven BC. 20,000 CAD. [Grants]   
This pilot study will document the daily fluctuations in blood pressure during a Spinal Cord Injury (SCI) patient’s daily self-care activities using 24 hr mobile blood pressure monitors. In addition, we will measure aortic arterial stiffness, a correlate of cardiovascular disease, via ultrasound. The data obtained will be used to explore the associations between transient increases in blood pressure (how much, how often, and for how long) with arterial stiffness. We hypothesize that frequent and large (≥30mmHG) increases in systolic blood pressure) due to autonomic dysfunction after SCI contribute to the high rates of cardiovascular related morbidity and mortality after SCI. Future interventions to reduce how often and how much blood pressure fluctuates over time may reduce the frequency of heart attack and stroke among patients living with chronic SCI.   
  
2012 Sep - 2016 Dec Site Investigator for Project 1. Improving Cardiovascular Health for Canadians with Spinal Cord Injury: Effects of Exercise and Targeted Education (CHOICES). CIHR. PI: Krassioukov, Andrei. Collaborator(s): Bryan S, Craven BC, Ditor D, Eng J, Hicks A, Laher I, Lam T, MacDonald M, Martin Ginis K, Ramer M, Verrier M, Warburton D. 16,141.98 CAD. [Grants]   
This is a multi-centre, randomized, prospective clinical trial (www.clinicaltrials.gov, NCT01718977) involving three sites- Vancouver, Toronto, and Hamilton evaluating the efficacy of body weight supported treadmill training vs. arm ergometry for reducing cardiovascular risk. I am the lead investigator for the Toronto site for CHOICES and a member of the study’s steering committee. The local site budget for project I of this study is $305,373.37 CAD.   
  
2012 Aug - 2013 Feb Principal Investigator. E-Scan Finalization. Ontario Neurotrauma Foundation (ONF). 2012-RHI-E-SCAN-954. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 25,482.81 CAD. [Grants]   
The purpose of this grant was to complete the knowledge translation activities related to dissemination of the E-Scan Atlas and development of a knowledge translation plan.   
  
2012 Jan - 2016 Dec Co-Investigator. NRN Development Grant. Ontario Neurotrauma Foundation (ONF). ONF # 974. PI: Verrier MC. Collaborator(s): Craven BC, Flett H. 740,000 CAD. [Grants]   
Description: The NRN is a network of spinal cord injury (SCI) rehabilitation hospitals and tertiary providers in North America that support the implementation of specialized rehabilitation centres which provide standardized activity-based therapy interventions designed from scientific and clinical evidence. An intensive Locomotor Training (LT) program utilizing Body Weight Support Treadmill Training (BWSTT) and over ground therapy is provided to suitable candidates. The purpose of this study is to evaluate the feasibility of the NRN program at Toronto Rehabilitation Institute’s Lyndhurst Centre in an outpatient setting. Individuals with sub-acute incomplete SCI (AIS C and D) will be recruited from the inpatient pool at Lyndhurst Centre. This intervention aims to facilitate and augment the recovery of mobility, posture, standing, and walking, and ensure improvements in health and quality of life among individuals with SCI. Our site is the first NRN site outside of the United States.   
  
2012 - 2013 Principal Investigator. Increasing the Efficiency and Diagnostic Yield of Lower Extremity Bone Density Assessment Among Patients with Neurological Impairment: A Comparison of New and Existing Technology. Academic Health Sciences Centre (AHSC) Toronto Rehab. Alternative Funding Plan (AFP) Innovation Fund. Collaborator(s): Cheung A, Burns A, Mittmann N, Giangregorio L, Jaglal S. 56,200.1 CAD. [Grants]   
Lower extremity fractures among Ontarians with neurologic impairments such as spinal cord injury (SCI) and osteoporosis are common; resulting in delayed fracture healing, blood clots, pressure sores, and additional attendant care. Dual energy x-ray absorptiometry (DXA) is the current standard for detection of osteoporosis and lower extremity fracture risk stratification. We propose that tibia bone density assessment with a newer technology, peripheral quantitative computed tomography (pQCT), will provide better fracture prediction than DXA, while reducing patient burden and the staff resources required for scan acquisition. The efficiency and diagnostic yield of substituting DXA assessments of hip and knee region areal BMD with pQCT-based measurements of tibia volumetric BMD and bone geometry will be evaluated.   
  
2011 Sep - 2012 Co-Investigator. Management of Autonomic Dysfunction in Persons with Spinal Cord Injury. CIHR. Meetings, Planning & Dissemination: Knowledge Translation. PI: Krassioukov, Andrei. Collaborator(s): Craven BC, Ethans K, Wong S. 54,600 CAD. [Grants]   
  
2011 Jul - 2015 Sep Co-Principal Investigator. The SCI IMPACT Research Team. Ontario Neurotrauma Foundation (ONF). ONF- REPAR Partnership. 2011-ONF-REPAR2- 885. PI: Craven BC, Maltais DB. Collaborator(s): Burns A, Courtois F, Noreau L, Ditor D, Hitzig SL, Mittmann N, St-Germain D, Coté I. 120,000 CAD. [Grants]   
The terms of reference of the grant mandated identification of co-principal investigators (one per province) were appointed. The SCI-IMPACT team is the product of an Ontario Neurotrauma Foundation –Réseau Provincial de Recherche en Adaption-Réadaption (ONF-REPAR) funding initiative to promote inter-provincial collaboration. The goal of this partnership was to build capacity and a culture of research collaboration between SCI rehabilitation researchers in Ontario and Québec. The overall objective of the SCI-IMPACT team is to capture and address (prevent/treat) the health, psychosocial, and economic impact of secondary health complications of spinal cord injury (SCI) for individuals with SCI, their families, providers, and the health care system. This collaboration involves 28 clinicians and researchers across the two provinces. Funding to bring the group together has resulted in a broad inter-professional network of stakeholders keen to pursue collaborations based on a common focus.   
  
2011 Jul - 2013 Jun Principal Investigator. Assessing the Feasibility and Scalability of Central Recruitment Strategies for Patients with Subacute and Chronic SCI. Ontario Neurotrauma Foundation (ONF). Mentor Mentoree Grant Agreement. ONF 2011-SCI-Mentor-884. Collaborator(s): Verrier MC. 106,575 CAD. [Grants]   
Insufficient or delayed recruitment is a common barrier to clinical study implementation. Screening to recruitment ratios, for subacute spinal cord injury (SCI) patients are low. This initiative aims to streamline recruitment and consent processes for subacute SCI patients, thereby reducing patient burden and maximizing research participation. This is a demonstration project designed to assess feasibility and scalability of the central recruitment process at the Toronto Rehab’s Lyndhurst Centre, with the future aim of scaling the process for the province should it prove feasible.   
  
2011 Apr - 2012 Jan Principal Investigator. E-Scan: Data Analysis and SCI Rehab Atlas Creation. Rick Hansen Institute. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Raschid A, Noonan V, Cherban E. 45,000 CAD. [Grants]   
The goal of these project is to examine the landscape of spinal cord injury rehabilitation across Canada and describes the current state of practice and map the actions required to implement changes to standardize and transform practice by 2020.   
  
2010 Jun - 2012 Mar Co-Investigator. Burden of Bowel Dysfunction in Individuals with Spinal Cord Injury: A Preliminary Study of Resources, Costs and Quality of Life. Ontario Neurotrauma Foundation (ONF). 2009-SCI-BURDEN-807. PI: Mittmann N. Collaborator(s): Chan B, Craven BC. 206,624 CAD. [Grants]   
  
2010 May - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration and Passive Standing for Treatment of Lower Extremity Osteoporosis, Muscle Atrophy & Adiposity Among Men with Incomplete Spinal Cord Injury: Efficacy, Safety & Feasibility Assessments for a Phase III Clinical Trial. Ontario Neurotrauma Foundation (ONF). 2010-SCI-WAVE3-816. Collaborator(s): Bryant D, Giangregorio LM, Hitzig SL, Masani K, Miyatani M, Popovic MR, Sayenko D, You L. 241,408 CAD. [Grants]   
Whole body vibration (WBV) has been purported in the scientific literature to have a positive impact on bone mass, muscle strength and endurance, and body composition among able-bodied persons including postmenopausal women, elite athletes, and bariatric clients. This pilot study seeks to confirm the therapeutic potential of WBV on similar bone, body composition, and muscle parameters among men with paraplegia (SCI).   
  
2010 Mar - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration (WBV) and Passive Standing for Treatment of Sublesional Osteoporosis after Spinal Cord Injury Pilot Phase II: Safety & Efficacy Assessment. Rick Hansen Institute. Spinal Cord Injury Solutions Network. SCISN Ref # 2010-94S. 30,620 CAD. [Grants]   
  
2010 Feb - 2012 Mar Co-Investigator. Understanding the Factors that Shape the Neurogenic Bowel Experience Following Spinal Cord Injury: Identifying Important Themes from the Perspective of Stakeholders. Ontario Neurotrauma Foundation (ONF). ONF-2009-SCI-NEURBOW. PI: Burns AS, St-Germain D. Collaborator(s): Craven BC, Wolfe D, Hitzig SL, Connolly M. 235,989 CAD. [Grants]   
Grant #: ONF-2009-SCI-NEURBOW-802.   
  
2010 Jan - 2012 Dec Co-Investigator. Understanding the Links Between Postural Control and Mobility Activities. Craig H. Neilsen Foundation. 164422. PI: Nadeau S and Verrier MC. Collaborator(s): Craven BC. 249,003 CAD. [Grants]   
To map the recovery profile of posture in a heterogeneous sample of patients with subacute spinal cord injury in order to inform the development of future customized interventions to augment trunk recovery.   
  
2009 Aug - 2012 Jan Co-Investigator. Neuroprosthesis for Sitting for Individuals with Spinal Cord Injury. CIHR. MOP#97952 RNet 84680. PI: Popovic MR. Collaborator(s): Craven BC, Verrier M, Masani K. 156,382 CAD. [Grants]   
  
2008 - 2015 Mar Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. CIHR Operating Grant. CIHR-177-254. PI: Craven BC & Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, McCartney N, Thabane L, Popovic M. 85,477 CAD. [Grants]   
Individuals with spinal cord injury (SCI) experience dramatic losses of bone and muscle following the injury, predisposing them to an increased risk of fractures. Chronic changes in bone mineral density (BMD) in the SCI population are not well established. Furthermore, a substantial proportion of the osteoporosis research in SCI has incorporated small sample sizes, has excluded females or has been conducted exclusively in persons with motor complete lesions. Identifying whether bone quality continues to deteriorate, and predictors of poor bone quality may provide insight on who to target for intervention.   
The purpose of this study is to establish a pilot cohort of individuals with chronic SCI, including both genders and diverse levels of impairment. The cohort will also create the potential for future prospective longitudinal studies evaluating predictors of fracture in the SCI population, so that guidelines for identifying those at high risk of fracture can be developed.   
  
NON-PEER-REVIEWED GRANTS   
FUNDED   
2015 Oct - 2016 Sep Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network Grant. Rick Hansen Institute (RHI). SCI Solutions Network. Collaborator(s): Flett H, Musselman K, Furlan JC, Bayley M. 120,000 CAD. [Grants]   
These funds were awarded to maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute to maintain a registry site.   
  
2015 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Musselman K, Burns A, Flett H, Furlan JC. 60,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2014 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Verrier M, Burns A, Flett H. 180,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 Jun - 2014 Mar Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. Collaborator(s): Verrier M, Burns A, Flett H. 240,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 - 2015 Dec Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. Rick Hansen Institute. RHI Grant # 2012-03. PI: Craven BC, Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, , McCartney N, Thabane L, Popovic M. 30,000 CAD. [Grants]   
This grant was awarded to offset the travel expenses for subjects with SCI participating in grant # CIHR-177-254. These funds allowed subjects to travel >75km from their home (outside of the GTA) to our site (Toronto Rehab Institute’s Lyndhurst Centre), thereby eliminating a funding barrier to recruitment.   
  
E. Publications   
1. MOST SIGNIFICANT PUBLICATIONS   
1. Craven BC, Hitzig SL, Mittmann N. Impact of impairment and secondary health conditions on health preference among Canadians with chronic spinal cord injury. J Spinal Cord Med. 2012 Oct 1;35(5):361-370. doi: 10.1179/2045772312Y.0000000046. Impact Factor 1.536. Principal Author.   
  
This paper highlights that having a spinal cord injury and related secondary health complications/multiple morbidity negatively impacts health utility scores. The mean health utility scores for our cohort of Ontarians with chronic spinal cord injury were 0.27, which is comparable or lower than those reported in other vulnerable patient populations in Ontario including Stroke, Multiple Sclerosis, Parkinson’s Disease and Alzheimer’s Disease. This data clearly indicates how secondary health complications of moderate intensity have profound adverse implications for health preference. This data will be used to determine the economic impact of specific health complications including pain and fractures.   
2. Alizadeh-Meghrazi M, Masani K, Popovic MR, Craven BC. Whole-Body Vibration during Passive Standing in Individuals with Spinal Cord Injury: Effects of Plate Choice, Frequency, Amplitude and Subject’s Posture on Vibration Propagation. PM&R. 2012 Aug 14;4(12):963-75. Epub 2012 Oct 24. doi: 10.1016/j.pmrj.2012.08.012. Impact Factor 1.372 (Trainee publication, M.A.Sc). Senior Responsible Author.   
  
Prior to evaluating the therapeutic efficacy of passive standing and whole body vibration among individuals with SCI, it was necessary to demonstrate that our goal of applying sufficient vibration to allow propagation to the hip and knee region, without adverse effects of vibration at the trunk and head was safe and biomechanically feasible. The findings in this paper are a key cornerstone of our whole body vibration program of research. In future, we plan to conduct a multicentre trial evaluating the efficacy of this therapy for augmenting bone mass and muscle, and reducing adiposity among individuals with motor complete paraplegia/ tetraplegia.   
3. Alizadeh-Meghrazi M, Totosy de Zepetnek J, Miyatani M, Giangregorio L, Masani K, You L, Popovic M, Craven BC. Whole Body Vibration and Passive Standing for Treatment of Sublesional Osteoporosis After Spinal Cord Injury: Device Optimization & Assessment. 2012 May 15 (Trainee publication, M.A.Sc). Coauthor or Collaborator.   
2. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Gulasingam S, Craven BC. The Health Economics of the spinal cord injury or disease among veterans of war: A systematic review. The Journal of Spinal Cord Medicine. 2017 Aug 14. In Press (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
2. Jaglal SB, Voth J, Guilcher SJT, Ho C, Noonan VK, McKenzie N, Cronin S, Thorogood NP, Craven BC. Creation of an algorithm to identify non-traumatic spinal cord disorder patients in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jul 16. In Press (Trainee publication). Coauthor or Collaborator.   
3. Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio L, Craven BC. The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. Spinal Cord. 2017 Jun 30. In Press (Trainee publication, MSc Candidate). Coauthor or Collaborator.   
4. Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe D, Craven BC. Rehabilitation Interventions to Modify Endocrine-Metabolic Disease Risk in Individuals with chronic Spinal Cord Injury living in the Community (RHSC): A systematic review and scoping perspective. Journal of Spinal Cord Medicine. 2017 Jun 30. Senior Responsible Author.   
5. Guilcher SJT, Voth J, Ho C, Noonan VK, McKenzie N, Thorogood NP, Craven BC, Cronin S, Jaglal S. Characteristics of non-traumatic spinal cord dysfunction (NTSCD) in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jun 29. In Press. Coauthor or Collaborator.   
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Books   
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Book Chapters   
1. Craven BC, Hadi SC, Popovic MR. Functional Electrical Stimulation Therapy: Enabling Function Through Reaching and Grasping. In: I. Söderback, editor(s). International Handbook of Occupational Therapy Interventions. 2nd. Sweden: Springer Science + Business Media; 2014. p. 587-605. Principal Author.   
2. Bodine C, Burne B, Burns A, Cardenas D, Craven C, Harvey L, Inglis G, Jensen M, Jessup N, Kennedy P, Krassioukov A, Levi R, Li J, Lukersmith S, Marshall R, Middleton J, Morris C, New P et al. Health Care and Rehabilitation Needs. In: Bickenbach J, Officer A, Shakespeare T, von Groote P, editor(s). International Perspectives on Spinal Cord Injury (IPSCI). Geneva (Switzerland): World Health Organization; 2013. p. 65-91. Coauthor.   
3. Burns AS, Wilson JR, Craven BC. The Medical Management of Secondary Complications following Spinal Cord Injury. In: Fehlings MG, Vaccaro A, Boakye M, Rossignol S, Ditunno J, Burns A, editor(s). Essentials of Spinal Cord Injury. New York (New York): Thieme Publishers Inc; 2012. p. 244-262. Coauthor.   
4. Craven C, Verrier M, Balioussis C, Hsieh J, Wolfe DL. The SCI Rehabilitation Framework. In: Craven C, Verrier M, Balioussis C, Wolfe D, Hsieh J, Noonan V, Rasheed A, Cherban E, editor(s). Rehabilitation Environmental Scan Atlas: Capturing Capacity in Canadian SCI Rehabilitation. Vancouver (Canada): Rick Hansen Institute; 2012. p. 8-11. Principal Author.   
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2. Cervinka T, Szabo E, Sievanen H, Cheung AM, Giangregorio LM, Craven BC. Peripheral Quantitative Computed Tomography: Evidence and Recommendation for Image Acquisition, Analysis and Reporting in Individuals with Neurological Impairment. 2017 Oct (Trainee publication, Clinical Fellow). Senior Responsible Author.   
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4. Dance D, Chopra A, Craven BC. Clinical Note: The Impact of Systolic Blood Pressure Variability on Evaluation of Cardiovascular Disease after Spinal Cord Injury. 2015 May (Trainee publication, PGY-5 Resident). Senior Responsible Author.   
5. Craven BC, Brisbois LM, Pelletier C, Verrier MC. Central Recruitment: Does it have a place in SCI Research Rehabilitation? 2017 Mar. Principal Author.   
6. Craven BC, Giangregorio L, Alavinia M, Jaglal S, Cheung A, Mittmann N. A Comparison of the cost of DXA and pQCT for lower extremity BMD assessment among individuals with spinal cord impairment. 2017. Principal Author.   
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Abstract   
1. Cervinka T, Giangregorio LM, Craven BC. Minimum Standards for Tibia pQCT Assessment for Patients with Chronic SCI. 2016 Sep. Coauthor or Collaborator.   
2. Guy, S, Cote I, Craven BC, Loh E. What does clinical practice for spinal cord injury pain look like in Canada? A national survey of healthcare providers. 2016 Jul. In Press. Coauthor or Collaborator.   
3. Furlan JC, Craven BC, Fehlings MG. Acute Care and Rehabilitation Management of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. Neurology. 2016 Apr 18;86(16):Suppl. P3.285 (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
4. Alavinia M, Farahani F, Flett H, Hitzig S, Bayley M, Craven BC. Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) Among Inpatients during Spinal Cord Injury (SCI) Rehabilitation. 2016 Mar. Coauthor or Collaborator.   
5. Alavinia M, Farahani F, Flett H, Hitzig S, Bayley M, Craven BC. Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) in Spinal Cord Injury (SCI) Rehabilitation. 2016 Feb. In Press. Coauthor or Collaborator.   
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7. Craven BC, Alavinia M, Giangregorio LM, Jaglal S, Cheung AM, Mittmann N. Comparing the cost of new and old technology for lower extremity BMD assessment among individuals with Spinal Cord Injury: p-QCT versus DXA. J Clin Densitom. 2016 Feb;19(4):530-531. Principal Author.   
8. Milligan J, Lee J, Craven BC, Wolfe D, Bauman CE. E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. 2016 Jan. Coauthor or Collaborator.   
9. Patsakos EM, Farahani F, Brisbois LM, Flett HM, Craven BC. The Rick Hansen Spinal Cord Injury Registry: Consent and Retention Rates 2010-2015. 2015 Nov 18 (Trainee publication, PhD Candidate). Senior Responsible Author.   
10. Dong H, Musselman K, Craven BC,Verrier MC. The role of robotic exoskeletons in SCI rehabilitation: a narrative synthesis of published data regarding the safety and efficacy of the technology. CPA. 2015 May. Coauthor or Collaborator.   
Manuscript   
1. Loh E, Guy SC, KrasDupuis A, White B, Craven BC, Short C, Wolfe D, Lee J, Laramee M, Salter M, Xia N, Guilcher S, Hayes K, Joshi P, Jeji T, Noonan V, Mehta. Advancing Research and Clinical Care in the Management of Neuropathic pain after Spinal Cord Injury: Key Findings from a Canadian Summit. Canadian Journal of Pain. 2017 Sep. In Press. Coauthor or Collaborator.   
2. Pelletier CA, Omidvar M, Miyatani M, Giangregorio LM, Craven BC. Participation in moderate-to-vigorous leisure time physical activity is related to decreased visceral adipose tissue in adults with spinal cord injury. 2017 Aug 2. In Press. Senior Responsible Author.   
3. Gieangregorio L, Alavinia M, Blencowe L, Desai N, Popovic M, Hitzig SL, Masani K. Evaluating the Efficacy of Functional Electrical Stimulation Therapy for Walking after Chronic Motor Incomplete Spinal Cord Injury: Effects on Bone Biomarkers and Bone Strength. The Journal of Spinal Cord Medicine. 2017 Jun 22. In Press (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
4. Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. Perspectives of individuals with sub-acute spinal cord injury after personalized adapted locomoter training. Disability and Rehabilitation. 2017 Jan (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
Poster   
1. Jetha A, Craven BC, Badley E, Beaton D, Gignac M. Examining Workplace Activity Limitations Among Young Adults Living with Spinal Cord Injuries: A Pilot Study. 2012 May 15. In Press. Principal Author.   
2. Tsui D, Drew B, Ansley B, Macrae L, Craven BC, Verrier M. Rick Hansen Spinal Cord Injury Registry and Ontario Spinal Cord Injury Registry: Relationships between respiratory status and length-of-stay in acute care and rehabilitation. 2012 May 15. In Press. Principal Author.   
3. Verrier M, Guy K, Morris H, Williams J, Marinho A, Popovic M, Craven BC, Flett H. Walking Measures Inform SCI Rehabilitation Practice and Research. 2012 May 15. In Press. Principal Author.   
4. Alizadeh-Meghrazi M, Totosy de Zepetnek J, Miyatani M, Giangregorio L, Masani K, You L, Popovic M, Craven BC. Whole Body Vibration and Passive Standing for Treatment of Sublesional Osteoporosis After Spinal Cord Injury: Device Optimization & Assessment. 2012 May 15 (Trainee publication, M.A.Sc). Coauthor or Collaborator.   
Presented and Published Abstract   
1. Brown Z, Gibbs JC, Wong AK, Adachi JD, Craven BC, Giangregorio LM. The reliability of peripheral quantitative computed tomography-derived marrow fat density measures using three analysis techniques for marrow fat segmentation. Journal of Bone and Mineral Research. 2015 Oct;(Suppl 1). Coauthor or Collaborator.   
Workshop Abstract   
1. Craven BC, Pelletier C, Miyatani M, Moore C, Lynch C, Szeto M. Novel Non-Invasive Methods For The Clinical Assessment Of Body Composition And Associated Endocrine-Metabolic Disease Risk After Chronic SCI. 2015 May 14:30. Accepted by the 4th Int’l Spinal Cord Society and American Spinal Cord Injury Association’s Joint Scientific Meeting, Montreal, QC. May 14-16, 2015.   
This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic events (mortality, fracture,Type II diabetes, heart disease). Total 1.5 hours. Principal Author.   
Other Publications   
1. Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray CF, Noreau L. Identifying Quality of Life Outcome Tools for Measuring the impact of pressure ulcers in persons with spinal cord injury. (Trainee publication, Post-Doctoral Fellow). Poster.   
2. Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Dwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M. Addressing privacy requirements for the development of a national health registry in Canada. Coauthor or Collaborator.   
3. SUBMITTED PUBLICATIONS   
Journal Articles   
1. Jaglal SB, Guilcher SJT, Ho C, Noonan VK, Craven BC, Christie S, Welk B, Wai E, Tsai E, Screevasan V, Wilson J, Fehlings M, Kaleemuddin J. Identifying Non-Traumatic Spinal Cord Injury (NTSCI) from Administrative Health Data in Ontario: Advancing the NTSCI Algorithm. Topics in Spinal Cord Injury Rehabilitation. 2017 Aug (Trainee publication). Coauthor or Collaborator.   
2. Milligan J, Craven BC, Burns A, Lee J, Hillier L, Wolfe D, Bauman C. Enhancing Spinal Cord Injury Consumers by Clinical Use of Videoconferencing. 2017 Jul. Coauthor or Collaborator.   
3. Choukou A, Best KL, Craven BC, Noreau L, Hitzig SL. Identifying and Classifying Quality of Life Tools for Assessing Neurogenic Bowel Dysfunction After Spinal Cord Injury. Journal of Spinal Cord Med. 2017 May 16. Coauthor or Collaborator.   
4. Rivers C, Fallah N, Noonan VK, Whitehurst DGT, Schwartz C, Finkelstein J, Craven BC, Ethans K, O’Connell C, Truchon C, Ho C, Linassi AG, Short C, Tsai E, Drew B, Ahn H, Dvorak MF, Paquet J, Fehlings MG, Noreau L, RHSCIR Network. Secondary health conditiions: impact on function, health-related quality of life, and life satisfaction following traumatic spinal cord injury. Archives of Physical Medicine and Rehabilitation. 2017 Jan. Coauthor or Collaborator.   
5. Craven BC, Kuerban D, Farahani F, Rivers CS, Gagnon DH, Linassi AG, Bouyer L, Ethans K, Ho C, O’Connell C, Noonan VK, RHSCIR Network. It’s not just about neurology: impairment, medical complexity, and functional ability predict rehabilitation length of stay in Canada. Journal of Spinal Cord Medicine. 2017 Jan. Coauthor or Collaborator.   
6. Furlan JC, Gulasingam S, Craven BC. Epidemiology of war-related spinal cord injury among combatants: A systematic review. The Journal of Spinal Cord Medicine. 2017 Jan. Senior Responsible Author.   
7. Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. The Journal of Spinal Cord Medicine. 2017 Jan (Trainee publication, Research Fellow). Coauthor or Collaborator.   
8. Alavinia SM, Bayley M, Farahani F, Flett H, Hitzig SL, Craven BC. Establishing Indicators for Optimal Spinal Cord Injury Care - Phase One: Prioritization of Rehabilitation Domains. Archives of Physical Medicine and Rehabilitation. 2016 Dec 15 (Trainee publication, Research Fellow). Senior Responsible Author.   
9. Boggild M, Erlandson M, Tomlinson G, Szabo E, Giangregorio LM, Craven BC, Slatkovska L, Alibbhai S, Cheung A. Effect of whole-body vibration therapy on distal tibial myotendinous density and volume in postmenopausal women. JCEM. 2016 Dec. Coauthor or Collaborator.   
10. Adachi J, Craven BC, Papaioannou A, Giangregorio L, Thabane L, Moore C. Do Muscle Atrophy and Fat Infiltration of Muscle Persist or Plateau in Chronic SCI? Journal of Clinical Densitometry. 2016 Sep. Coauthor or Collaborator.   
11. Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. ‘Service Interruption’ and their impact on rehabilitation outcome variables in patients with traumatic spinal cord injury. 2016 Aug (Trainee publication, Clinical Fellow). Senior Responsible Author.   
12. Craven BC, Gibbs JC, Cote I, Thabane L, Adachi JD, Papaioannou A, Blencowe L, Lynch C, McCartney N, Popovic M, Giangregorio L. Bone Quality in Canadians with chronic spinal cord injury: A prospective cohort study. Int J PMR. 2015 Mar. Principal Author.   
13. Budisin B, Craven BC, Green R. Frequency of traumatic brain injury with Spinal Cord Injury: Understanding the disparity across studies. J Head Trauma Rehabil. 2014 Dec 18 (Trainee publication). Coauthor or Collaborator.   
14. Hitzig SL, Noreau L, Balioussis C, Routhier F, Kairy D, Craven BC. The development of the spinal cord injury participation and quality of life (PAR-QoL) tool-kit. Disabil Rehabil. 2013 Aug;35(16):1408-14. doi: 10.3109/09638288.2012.735340. Impact Factor 1.84. Senior Responsible Author.   
Abstract   
1. Alavinia M, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. Enhancing quality practice for prevention and diagnosis or urinary tract infection during inpatient spinal cord rehabilitation. 2017 Sep. Coauthor or Collaborator.   
2. Bondi M, Burns AS, Gulasingam S Craven BC. Evidence Informed Protocols for the treatment of Sublesional Osteoporosis after SCI. 2017 Mar (Trainee publication). Principal Author.   
3. Cervinka T, Giangregorio LM, Craven BC. Capozza Index from pQCT Imaging Predicts 50% of Variance in Proximal Tibia DXA-derviced Z-scores. 2016 Sep. Senior Responsible Author.   
4. Loh E, Guy SC, Mehta S, Moulin DE, Bryce TN, Middleton JW, Siddall PJ, Hitzig SL, Widerstrom-Noga E, Finnerup NB, Kras-Dupuis A, Casalino A, Craven BC, Lau B, Cote I, Harvey D, O’Connell C, Orenczuk S, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Bradbury CL, Wolfe D. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: introduction, methodology and recommendation overview. Spinal Cord. 2016 Jul;54(S1-S6). doi: 10.1038/sc.2016.88. Coauthor or Collaborator.   
5. Furlan JC, Massicotte EM, Craven BC. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Apr (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
6. Furlan JC, Craven BC. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 2016 Jan. Coauthor or Collaborator.   
7. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2015 Nov 9. Principal Author.   
8. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. Archives PMR. 2015 Nov 9. Principal Author.   
9. Furlan JC, Fehlings MG, Craven BC. A Cost Utility Analysis Comparing Younger Versus Elderly Regarding Acute Care and Rehabilitation Management After Acute Traumatic Cervical Spinal Cord Injury. 2015 Nov. Coauthor or Collaborator.   
10. Furlan JC, Fehlings MG, Massicotte EM, Craven BC. A Cost Utility Analysis Comparing Early Versus Delayed Surgical Decompression of the Spinal Cord After Acute Traumatic Tetraplegia. 2015 Nov. Coauthor or Collaborator.   
Manuscript   
1. Shojaei MH, Alavinia M, Craven BC. Management of obesity after spinal cord injury: a systematic review. The Journal of Spinal Cord Medicine. 2017 Jun 1 (Trainee publication, Research Volunteer). Senior Responsible Author.   
Poster   
1. Burns A, Truchon C, Graveline C, Moore L, Craven BC. Shaping the optimal continuum of care: Using Canadian Registry data to identify key community indicators after traumatic spinal cord injury (tSCI). 2016 Sep 12. Coauthor or Collaborator.   
F. Presentations and Special Lectures   
1. INTERNATIONAL   
Invited Lectures and Presentations   
2017 Apr 5 Invited Speaker. Patient Self-Report Classificator. Wings for Life/SCITT. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. fill in.   
2016 Sep 14 Speaker, Senior Responsible Author. Moving from DXA to pQCT: feasibility and economic considerations and technical recommendations for the SCI community. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Pstakos E, Craven BC. 1)To highlight the importance of peripheral imaging in assessment of bone health and fracture risk among individuals with spinal cord injury or disease (SCI/D)   
2)To review the time required and associated direct medical costs for DXA and pQCT pre-screening, transfer, positioning, scan acquisition, and analysis by the technologist and reporting physician.   
3)To identify technical limitations of DXA, pQCT and HRpQCT for assessment for patients with SCI/D   
4)To provide a succinct review of pQCT/HRpQCT acquisition and analysis protocols in studies among patients with SCI/D based on a recent systematic review.   
5)To propose the most appropriate acquisition and analysis protocols, for diagnosis of sublesional osteoporosis, lower extremity fracture risk prediction, or monitoring of treatment effectiveness among individuals with SCI/D.   
6)To review the key constructs presented through case based discussion.   
2015 May 19 Co-Author. Methodological Considerations of Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Chronic Traumatic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Kotob R, Craven BC, Mathur S,Oh P, Ditor DS, Verrier MC. (Trainee Presentation).   
2015 May 16 Invited Speaker. Exploring the associations between serum sclerostin after nine months of whole body vibration therapy in people with spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Delparte JJ, Giangregorio L, Popovic MR, Szeto M. Primary Author.   
2015 May 14 Workshop Leader. Novel Non-Invasive Methods For The Clinical Assessment Of body Composition And Associated Endocrine-Metabolic Disease After Chronic SCI. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Pelletier C, Miyatani M, Moore C, Szeto M. This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic disease risk and identification of patients at risk for specific endocrine-metabolic events (mortality, fracture, Type II diabetes, heart disease).   
2013 May 8 Invited Lecturer. A Clinical Approach To Sublesional Osteoporosis (Bone Changes After SCI: A Problem with a Solution Workshop). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Schnitzer TJ, Craven BC, Morse L. (Continuing Education).   
2013 May 8 Collaborator. Neurogenic Bowel from the Perspective of Support Providers to Individuals with Spinal Cord Injury (SCI). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Burns AS, St-Germain D, Guindon A, Hitzig S, Delparte J, Craven BC, Connolly M. (Podium).   
2012 Sep 4 Keynote Speaker. Putting Evidence into Practice. International Spinal Cord Society (ISCOS), 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC.   
2012 Aug 16 Keynote Speaker. Spinal Cord Injury and Osteoporosis. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
2012 Aug 15 Keynote Speaker. Osteoporosis – Use of Bone Mineral Density in Spinal Cord Injuries. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
Presented and Published Abstracts   
2016 Sep Co-Author. E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. Academy of Spinal Cord Injury Professionals Educational Conference. Nashville, Tennessee, United States. Presenter(s): Milligan J, Lee J, Craven BC., Wolfe D, Bauman C.   
  
Publication Details:   
E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. The Journal of Spinal Cord Medicine. 2016;39(5):593. Coauthor or Collaborator.   
2015 Oct The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. Presenter(s): Brown Z, Gibbs J, Wong AKO, Craven BC, Adachi JD, Giangregorio L.   
  
Publication Details:   
The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. 2015 Oct. Coauthor or Collaborator.   
2015 May 16 Collaborator. 2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury. The 4th ISCoS and ASIA Joint Scientific Meeting, May 14-6, 2015. Montreal, Quebec, Canada. Presenter(s): Guy S, Mehta S, Loh E, SCI NP Working Group. I am a member of the Neuropathic Pain Guideline Working Group.   
  
Publication Details:   
2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury.   
2015 May 15 Senior Responsible Author. Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Pelletier CA, Miyatani M, Moore C, Giangregorio L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury.   
2015 May 15 Coauthor. Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Popovic MR, Kapadia N, Hitzig SL, Giangregorio LM, Craven BC, Flett H.   
  
Publication Details:   
Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency.   
2015 May 15 Coauthor. Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI). 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Burns A, Truchon C, Graveline C, Moore L, Craven BC, ACT Indicator National Working Group.   
  
Publication Details:   
Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI).   
2014 Sep Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Sep Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Neurologic examinations - anatomy and severity.   
  
Publication Details:   
Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM et al. Neurologic examinations - anatomy and severity. Top Spinal Cord Inj Rehabil. 2014. Coauthor.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Malada, Spain. Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. (Trainee Presentation)   
  
Publication Details:   
Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods.   
Invited Meetings   
2013 Oct 2 Chair. E-Scan: Moving from Blueprint to Action 2013. Ontario Neurotrauma Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Two day consensus meeting (October 2- 3, 2013) leading to the development of a rehabilitation manifesto.   
Podium Presentation   
2012 May 15 Collaborator. Addressing Privacy Requirements for the Development of a National Health Registry in Canada. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Kwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M.   
Poster   
2016 Sep 14 Collaborator. E-Consultation: Building Capacity for Spinal Cord Injury in Primary Care. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Milligan J, Lee J, Craven BC, Wolfe D, Bauman C. (Trainee Presentation).   
2016 Sep 14 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Grades Among Individuals with Chronic Spinal Cord Injury. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Sep 14 Collaborator. What does clinical practice for spinal cord injury pain look like in Canada? A national survey of healthcare providers. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Guy S, Cote I, Craven BC. Loh E. (Trainee Presentation).   
2016 Sep 13 Collaborator. Bridging the Gaps from Spinal Cord Injury Research to Improved Outcomes: PRAXIS 2016. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Creasey GH, Andresen KD, Choi D, Clarke-Richardson P, Craven BC, Guest JD, Kleitman N, Kwon BK, McKerracher L, Hunder Peckham P, Steeves JD, Strachan D, Tomlinson M, Truchon C, White B, Joshi P. (Trainee Presentation).   
2015 May 19 Senior Responsible Author. Relationship between Carotid-Femoral Arterial Stiffness and Carotid Intima-Media Thickness in Individuals with Chronic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Miyatani M, Szeto M, Alavinia SM, Oh PI, Craven BC. This study explores the association between Carotid-Femoral PWV and Carotid IMT in a cohort of patients with chronic spinal cord injury (n=74). (Trainee Presentation).   
2015 May 14 Coauthor. Identifying and classifying quality of life tools for assessing bladder dysfunction after spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Best KL, Hitzig SL, Ethans K, Craven BC, Noreau L.   
2014 Oct 7 Senior Responsible Author. The Participation and Quality of Life (PAR-QoL) Tool-Kit: Outcomes and Next Steps. American Congress of Rehabilitation Medicine (ACRM) Progress in Rehabilitation Research Annual Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Routhier F, Noreau L, Kairy D, Atack L, Craven BC. Poster presentation on the PAR-QoL website. (Continuing Education).   
2014 Sep 14 Coauthor. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. (Trainee Presentation).   
2014 Sep 12 Coauthor. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. (Trainee Presentation).   
2014 Sep Coauthor. Neurogenic Bowel after Spinal Cord Injury (SCI): the Perceived Importance of Identified Concerns to Persons with SCI and Health Care Professionals. International Spinal Cord Society (ISCOS) 53rd Annual Scientific Meeting. Maastricht, Limburg, Netherlands. Presenter(s): Burns AS, St.-Germain D, Guindon A, Hitzig SL, Delparte JJ, Craven BC, Connolly M, Wolfe D.   
2014 May 14 Collaborator. Neurologic examinations - anatomy and severity. American Spinal Injury Association (ASIA) 41st Anniversary Scientific Meeting. San Antonio, Texas, United States. Presenter(s): Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM, Noonan V, Paquet J, Parent S, Rivers C, Townson A, Tsai EC, Tsui D.   
2014 Mar 20 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. The International Brain Injury Association’s 10th World Congress on Brain Injury. San Francisco, California, United States. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Nov 27 Senior Responsible Author. Exploring Daily Blood Pressure Fluctuations Among Individuals with Chronic SCI During Activities of Daily Living. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury. Vancouver, British Columbia, Canada. Presenter(s): Dance D, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC. Poster Competition Award Winner, 4th Place. (Trainee Presentation).   
2013 Nov 5 Senior Responsible Author. Interim Results from the Burden of Bowel Dysfunction in Spinal Cord Injury Study. ISPOR 16th Annual European Congress. Dublin, Ireland. Presenter(s): Mittmann N, Bannon G, Hassan S, Seung SJ, Kee P, Cartolano NS, Pinto PM, Smith K, Wolfe D, Craven C.   
2013 Oct 29 Senior Responsible Author. Preliminary face validity of target SCIM III median values for prediction of functional outcome after traumatic SCI. International Spinal Cord Society (ISCOS) 52nd Annual Scientific Meeting. Istanbul, Istanbul, Turkey. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2012 Oct 15 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting. Minneapolis, Minnesota, United States. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi J, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Oct 9 Coauthor. Cautions regarding subcapital whole body DXA scan interpretation among boys with Duchenne Muscular Dystrophy (DMD). 17th International Congress of the World Muscle Society. Perth, Australia. Presenter(s): Mayo AL, McAdam L, Biggar WD, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 Sep 3 Principal Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A, Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM, Popovic MR.   
2012 Sep 3 Senior Responsible Author. Association between arterial stiffness, cardiovascular risk factors, and injury related risk factors in people with spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. Predicting health preference in spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Hitzig SL, Giangregorio LM, Katz J, Noreau L, Wolfe D, Mittmann N.   
2012 Sep 3 Principal Author. Exploring the feasibility and scalability of central recruitment for patients with subacute SCI in tertiary academic rehabilitation centres. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Brisbois LM, Carson JR, Verrier MC.   
2012 Sep 3 Senior Responsible Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A. Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM. Popovic MR.   
2012 Sep 3 Sr. Responsible Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. 51st Annual Meeting of the International Spinal Cord Society (ISCoS). London, Westminster, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 May 17 Collaborator. Identifying Quality of Life Outcome Tools for Measuring the Impact of Pressure Ulcers in Persons with Spinal Cord Injury. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray C, Noreau L. (Trainee Presentation).   
2012 May 17 Coauthor. Walking Measures Inform SCI Rehabilitation Practice and Research. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Verrier M, Guy K, Morris H, Williams J, Marinho A, Popovic M, Craven BC, Flett H.   
2012 May 17 Collaborator. Examining workplace activity limitations among young adults living with spinal cord injuries: A pilot study. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Jetha A, Craven BC, Badley E, Beaton D, Gignac M. (Trainee Presentation).   
2012 May 16 Principal Author. Using Scoping Review Methodology to Conduct a Canadian Spinal Cord Injury (SCI) Rehabilitation Environmental Scan (E-Scan). Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Craven C, Balioussis C, Verrier M, Hsieh J, Noonan V, Raschid A, Wolfe D, Cherban E.   
2012 May 15 Coauthor. Rick Hansen Spinal Cord Injury Registry and Ontario Spinal Cord Injury Registry: Relationships Between Respiratory Status and Length-Of-Stay in Acute Care and Rehabilitation. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Tsui D, Drew B, Ansley B, Macrae L, Craven BC, Verrier M. (Continuing Education).   
2012 May Senior Responsible Author. The Associations Between Aerobic Capacity and Arterial Stiffness in People with Chronic Spinal Cord Injury. American College of Sports Medicine. San Francisco, California, United States. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. ACSM’s 59th Annual Meeting and 3rd World Congress on Exercise is Medicine, May 29- June 2, 2012, San Francisco, California. (Trainee Presentation).   
2012 Mar 23 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis. Bordeaux, France. Presenter(s): Wong AKO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis, Palais des Congrès de Bordeaux, France, March 21-24, 2012.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. 2012 IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Brussels, Belgium. Presenter(s): Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L.   
2. NATIONAL   
Invited Lectures and Presentations   
2017 May 25 Invited Speaker. Sarcopenic Obesity, Endocrine Metabolic Disease Risk & Other Mysterious Terms. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC.   
2017 May 25 Invited Speaker. Career Reflections. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Invited keynote presentation as the Award of Merit recipient.   
The session was intended to assist attendees in 1) distinguishing valuable mentors; the importance of demonstrating CAPMR organizational commitment through networking activities; scheduling time out of the blur to articulate academic goals, synthesize the unique challenges for the field and advance care in the coming decade.   
Criteria for the Award of Merit nomination:   
Must be a member in good standing with the CAPM&R (any category).   
Must have contributed to the activities of the CAPM&R and/or CPRDF   
Must not be a current member of the CAPM&R Executive Committee.   
Must be nominated by his/her peers, at least one who is a CAPM&R member.   
Has made a contribution to the field of Physiatry, through research, education, advocacy, medical care, humanitarianism, mentorship, or the advancement of our field.   
2017 Apr 7 Invited Speaker. Central Recruitment Moving from Pilot Project to Institutional Wide Implementation. ICORD. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. Learning Objectives:   
1. Why Clinical Trials Fail   
2. How to Augment Recruitment   
3. The CR Model   
4. Assumptions Underpinning CR   
5. Implementation Strategies.   
2016 Nov 11 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-HIGH). Canadian Spinal Cord Injury Urohealth Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. 1. To provide an overview of the SCI-HIGH project   
2. To emphasize the importance of UTI prevention among rehabilitation domains   
3. To highlight the activities of the SCI-HIGH UTI working group and the E-Scan prescription for change.   
2016 Oct 18 Invited Speaker. Bone Health Service for Patients with SCI: Self Evaluation. Arthur Shears Rehab Research Day. Halifax, Nova Scotia, Canada. Presenter(s): Craven BC.   
2016 May 27 Workshop Leader. A review of Cervical Spondylotic Myelopathy (CSM) and Introduction to the SCI-HIGH project. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Furlan JC.   
2016 May 25 Facilitator. Time Management Pearls for Busy Clinicians and Scientists. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Bayley M, Teasell R.   
2016 May 24 Invited Speaker. SCI Rehabilitation Care High Performance Indicators Project Update. Rick Hansen Institute Care Advisory Committee Meeting. London, Ontario, Canada. Presenter(s): Craven BC.   
2016 Apr 25 Invited Speaker. Making Real Change: In the Context of the “Exercise is Medicine” Paradigm. Rick Hansen Institute Praxis 2016. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2015 May 23 Invited Speaker. Research Budget Writing for Dummies. CAPM&R 63rd Annual Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2014 Jun 21 Invited Speaker. CAPM&R SCI Special Interest Group Meeting: Challenging cases and updates on Canadian research. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC, Smith K. Objectives:   
At the end of this session, participants will be able to:   
1) Outline the approach to the management of osteoporosis following acute spinal cord injury   
2) Describe the potential role of postprandial hypotension on autonomic instability following spinal cord injury.   
2013 May 29 Invited Speaker. CAPM&R Research Committee Meeting: How to Write a Brilliant Letter of Nomination/Recommendation. CAPM&R 2013 Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC.   
2012 Oct 20 Invited Speaker. Capturing Capacity in SCI Rehabilitation in Canada: E-Scan Atlas. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Cherban E, Hsieh J, Noonan V, Rasheed A, Verrier M, Wolfe D. (Continuing Education).   
2012 Oct 19 Invited Speaker. Top Six Articles You Need to Read. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Short C, Smith KM, Ethans K, Krassioukov A, O’Connell C. (Continuing Education).   
2012 Jan 20 Invited Speaker. Canadian Comprehensive Review Course in Physical Medicine & Rehabilitation: Secondary Health Complications of Spinal Cord Injury. Canadian Association of Physical Medicine & Rehabilitation / University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven, BC. To provide a succinct overview of the common and serious secondary health complications of SCI.   
Presented Abstracts   
2017 May 24 Senior Responsible Author. Patient Recruitment in Spinal Cord Inured Populations: An Ethical Model at Toronto Rehabilitation Institute. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Brisbois, L, Heeters A, Craven BC.   
2017 May 24 Senior Responsible Author. The Health Economics of the Spinal Cord Injury or Disease (SCI/D) Among War Veterans: A Systematic Review. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Sivakumar G, Furlan J, Craven BC.   
2016 May Senior Responsible Author. How do you feel? A review of mood disorder screening tools appropriate for use during inpatient spinal cord injury rehabilitation. 2016 CAPMR-64th Annual Scientific Meeting. London, Ontario, Canada. Titman R, Craven BC. (Trainee Presentation).   
2016 May Senior Responsible Author. A Cost-Utility Analysis Comparing Younger versus Elderly Regarding Acute Care and Rehabilitation Management after Acute Traumatic Cervical Spinal Cord Injury. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
Presented and Published Abstracts   
2016 May 27 Senior Repsonsible Author. Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Titman R, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation.   
2016 May 27 Senior Repsonsible Author. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. (Trainee Presentation)   
  
Publication Details:   
The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal.   
2016 May 27 Senior Repsonsible Author. Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Robinson L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation.   
2016 Apr Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Craven BC. (Trainee Presentation)   
  
Publication Details:   
Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains.   
2014 Sep It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada.   
  
Publication Details:   
Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. J Spinal Cord Med. 2014 Sep;37(5):616. Principal Author.   
2014 Sep Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice.   
  
Publication Details:   
Hadi SC, Craven BC. Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice. J Spinal Cord Med. 2014 Sep;37(5):618-619. Senior Responsible Author.   
2014 Sep Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study.   
  
Publication Details:   
Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. J Spinal Cord Med. 2014 Sep;37(5):619-620. Senior Responsible Author.   
2014 Sep Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi R, Popovic M, Giangregorio L, McCartney N. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):647-648. Coauthor or Collaborator.   
2014 Sep Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis.   
  
Publication Details:   
Noonan et al. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. J Spinal Cord Med. 2014 Sep;37(5):622-623. Coauthor.   
2014 Sep Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective.   
  
Publication Details:   
Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. J Spinal Cord Med. 2014 Sep;37(5):630. Coauthor.   
2014 Sep The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury.   
  
Publication Details:   
El-Kotob R, Verrier MC, Mathur S, Craven BC. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):644-645. Senior Responsible Author.   
2014 Sep Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey.   
  
Publication Details:   
Pelletier C, Dumont F, Noreau L, Craven BC. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. J Spinal Cord Med. 2014 Sep;37(5):648. Senior Responsible Author.   
2014 Sep Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto.   
  
Publication Details:   
Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. J Spinal Cord Med. 2014 Sep;37(5):658. Principal Author.   
2014 Sep Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines?   
  
Publication Details:   
Noonan et al. Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines? J Spinal Cord Med. 2014 Sep;37(5):623. Coauthor or Collaborator.   
Media Appearances   
2013 May 17 Talk Show Guest. Spinal Cord Injuries & E-Scan Atlas Release. Interviewer: Dr. Marla Shapiro. Dr. Marla and Friends, CTV. Toronto, Ontario, Canada. Presenter(s): BC Craven. Episode 33: Short segment discussing current state of spinal cord injury in Canada and potential impact of the E-Scan Atlas release on the state of spinal cord injury rehabilitation in 2020.   
Invited Meeting   
2016 May 24 Facilitator. Rick Hansen Care Advisory Committee Strategic Planning Session. Rick Hansen Institute. London, Ontario, Canada. Chair of the Care Committee responsible for implementing the strategic planning session intended to inform the 2013-2018 RHI Business Plan.   
2014 Oct 2 Invited Attendee. Canadian Pressure Ulcer Strategy Meeting. Rick Hansen Instititute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Invited Attendee. Rick Hansen Institute Care Program Advisory Committee Meeting. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. This was a two day meeting of the advisory committee, from October 4th-5th, as it related to the implementation of Rick Hansen Institute’s 2013-2018 business plan.   
2012 Aug 10 Invited Attendee. Rick Hansen Institute Translational Research Advisory Committee (TRAC) Retreat. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. The objective of the TRAC retreat is to identify translational research and best practice implementation priorities to RHI’s Board of Directors for the period of 2013-2018 using the funds committed by the federal government through the Western Economic Diversification Fund (WD) to RHI in the 2012 federal budget.   
2012 May 15 RHSCIR Site Lead. Rick Hansen Spinal Cord Injury Registry (RHSCIR) Investigator Meeting. Rick Hansen Institute. Vancouver, British Columbia, Canada. The Rick Hansen Spinal Cord Injury Registry (RHSCIR) project aims to collect a standardized observational dataset throughout the continuum of care and lifetime of individuals sustaining new, traumatic spinal cord injuries and admitted to participating facilities in Canada. The RHSCIR Investigator meeting provides an opportunity for an update on the current project status, plans for data access, and to provide an opportunity to shape the future vision and deliverables of the project.   
Media Highlights of Research Activities   
2014 Dec Responsible Author for featured work. PAR-QoL Newsletter. Toronto, Ontario, Canada. This newsletter features the Spinal Cord Injury Manifesto.   
www/idapt.com/research/manifesto. Available from: http://www.parqol.com/newsletter\_view.cfm.   
Poster   
2017 May 12 Senior Responsible Author. Association between Statin Treatment and Regional Bone Mineral Density in Individuals with Chronic Spinal Cord Injury: A Cross-Sectional Study. ONF-RHI. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Alavinia M, Blencowe L, Giangregorio LM, Craven BC. RoBaCO Trial Pilot Data.   
2016 Apr Senior Responsible Author. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
2016 Apr Senior Responsible Author. The SCI-HIGH (Spinal Cord Injury High Performance Indicators) process for advancing SCI rehabilitation care by 2020. 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) during Spinal Cord Injury (SCI). 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Acute Care and Rehabilitation Management of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. The American Academy of Neurology 68th Annual Meeting. Vancouver, British Columbia, Canada. Furlan J, Craven BC. (Trainee Presentation).   
2014 Oct 4 Presenter. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Award Winner Education Category- 2nd Place.   
2014 Oct 4 Coauthor. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials By Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan et al.   
2014 Oct 4 Coauthor. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C.   
2014 Oct 4 Senior Responsible Author. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): El-Kotob R, Verrier MC, Mathur S, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Pelletier CA, Dumont FS, Noreau L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury (SCI). 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L, McCartney N. (Trainee Presentation).   
2014 Oct 4 Presenter. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V.   
2014 Oct 4 Senior Responsible Author. Rehab Interrupted: Frequency, Type And Duration Of Service Interruptions During Inpatient SCI Rehabilitation. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. (Trainee Presentation).   
2014 Oct 3 Senior Responsible Author. Incorporating Evidence-Based Practice Into Life Care Plans Through Scholarly Practice. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hadi SC, Craven BC.   
2014 Jun 20 Senior Responsible Author. Survey of Canadian Practice Patterns in Venous Thromboembolism Prophylaxis in Adults with Spinal Cord Injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townsen A, Jacquemin G, Short C, Smith K, O’Connell C, Askari S, Ho C, Hill D, Craven BC. (Trainee Presentation).   
2014 Jun 20 Invited Speaker. Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC (presenter), Zeng L, Farahani F, Hitzig SL. Original Research Contest Award Winner: 3rd Place.   
2014 Jun 19 Senior Responsible Author. Evaluating Practice Patterns in Thromboembolism Prophylaxis in Adults with Spinal Cord Injury: Practice of Canadian Spinal Cord Injury Rehabilitation Physiatrists. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townson A, Jacquemin G, Short C, O’Connell C, Smith K, Askari S, Ho C, Hill D, Craven BC.   
2014 Jun 19 Collaborator (expert panel). The development of a clinical practice guideline for the diagnosis and management of neuropathic pain following spinal cord injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Guy S, Mehta S, Gorski J, O’Connell C, Potter P, Townson A, Loh E, and CPG Working Group.   
2012 Oct 19 Coauthor. Lack of generalizability of the randomized clinical trials on initial management of acute traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan J, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Oct 19 Collaborator. FES-assisted walking versus conventional exercise to augment gait in chronic spinal cord injury: Impact on quality of life and community integration. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Panjwani A, Craven BC, Desai N, Popovic MR. (Trainee Presentation).   
2012 Oct 19 Coauthor. Exploring relationships between knee region bone mineral density and prevalent fractures among individuals with SCI: A nested case-control study. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Giangregorio L. (Trainee Presentation).   
2012 Oct 19 Coauthor. Metabolic Syndrome (MetS) Risk Factors are not Sufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Oct 19 Coauthor. Social Networks and Secondary Health Conditions: The Critical Secondary Team for Individuals with a Spinal Cord Injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Lemieux-Charles L, Casciaro T, Craven BC, McColl MA, Jaglal S. Poster Award Winner- Patient Care Category. (Trainee Presentation. Continuing Education).   
2012 Oct 19 Collaborator. Access to Care (ACT) For Traumatic Spinal Cord Injury: A Survey of Canadian Acute and Rehabilitation Centres. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan VK, Townson A, Fox R, Hurlbert RJ, Linassi AG, Ethans K, Tsui D, Burns AS, Craven C, Wolfe D, Truchon C, Gagnon D, Charron J, Fehlings MG, Soril L, Santos A, Dvorak MF.   
2012 Oct 19 Coauthor. Knee DXA Measurement for the Assessment of Sub-lesional Osteoporosis After Spinal Cord Injury: A Knowledge Translation (KT) Activity. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Coté I, Wolfe D, Boulet M, Giangregorio L. (Continuing Education).   
2012 Oct 19 Coauthor. Dealing with Secondary Health Conditions and Spinal Cord Injury: An Uphill Battle in the Journey of Care. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Lemieux-Charles L, Casciaro T, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. A Randomized Controlled Trial of Functional Electrical Stimulation Therapy for Walking Versus a Conventional Exercise Program in Patients with Chronic Incomplete Spinal Cord Injury: Effects on Body Composition. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Giangregorio L, Craven C, Kapadia N, Richards K, Popovic MR.   
2012 Oct 19 Senior Responsible Author. Associations Between Arterial Stiffness and Traditional and SCI Specific Cardiovascular Disease Risk Factors. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh P, Craven C. (Trainee Presentation).   
2012 Oct 19 Coauthor. Functional Electrical Stimulation Therapy for Walking Versus Conventional Exercise Program for Patients with Chronic Incomplete Spinal Cord Injury: A Randomized Controlled Trial. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Kapadia N, Masani K, Craven C, Giangregorio L, Hitzig S, Richards K, Popovic MR.   
2012 Oct 19 Coauthor. Is the Emergency Department an Appropriate Substitute for Primary Care for Persons with Traumatic Spinal Cord Injury? 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Calzavara A, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. Direct Cost of Adult Traumatic Spinal Cord Injury in Ontario. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Munce SEP, Wodchis W, Guilcher SJT, Couris C, Verrier M, Fung K, Craven BC, Jaglal SB.   
2012 Oct 19 Coauthor. A phenomenological analysis of neurogenic bowel dysfunction following spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guindon A, Hitzig SL, Connolly M, Delparte JJ, Craven BC, St-Germain D, Burns AS.   
2012 Jun 22 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Craven B, Oh P. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Coauthor. Bone Health in Boys with Duchenne Muscular Dystrophy on Long-term Daily Deflazacort Therapy. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Mayo A, Craven B, McAdam L, Biggar W. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Using Scoping Review Methods to Describe & Evaluate Canadian SCI Rehabilitation Service Delivery. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Verrier M, Balioussis C, Hsieh J, Rasheed A, Wolfe D, Noonan V. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Knowledge Translation Initiatives to Increase the Detection and Improve Management of Sublesional Osteoporosis after SCI. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Adachi J, Hawker G, McGillivray C, Cote I, Giangregorio L. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 May 6 Collaborator. Preliminary Results from the Baseline Questionnaire of the Burden of Bowel Dysfunction in Spinal Cord Injury Study. Canadian Association for Population Therapeutics (CAPT) Annual Conference. Montreal, Quebec, Canada. Presenter(s): Mittmann N, Seung SJ, Hassan S, Bannon G, Craven BC. 2012 CAPT Annual Conference “Effectiveness and safety of therapeutics: Dealing with transparency, minimizing bias, and improving knowledge translation to concerned stakeholders”, Montreal, QC, May 6-8, 2012.   
Poster Presentation   
2014 Jun 20 Collaborator. Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Fortin C (presenter), Voth J, Jaglal S, Craven BC. Resident Research Award Winner: 3rd Place. (Trainee Presentation).   
3. PROVINCIAL / REGIONAL   
Invited Lectures and Presentations   
2017 Mar 31 Invited Speaker. Improving Primary Care and Community Support. SCI Solutions Alliance, Ministry of Health. Toronto, Ontario, Canada. Presenter(s): Craven BC, Athanasopoulous P, Bassett-Spiers K, Milligan J, Berg P. A dialogue regarding opportunities to advance primary care and community support for patients living with spinal cord injury in the community within Ontario. (Presentation to Patients/Public).   
2017 Mar 17 Distinguished Speaker. Biomechanics in Action: Perspectives from a Tertiary Spinal Cord Injury Rehab Hospital. York University School of Kinesiology and Health Science. North York, Ontario, Canada. Presenter(s): Craven BC. Two 1 Hour Lectures to undergraduate KINE 3030 Students with 400 students in each session overall learning objctives included:   
-Who am I, How & where do I spend my time?   
-How did I get here?   
-Individuals living with a Spinal Cord Injury (SCI), their Health Issues & Exercise Dilemmas   
-Biomechanics in Action - The Promise of WBV   
-Words to the Wise.   
2016 Nov 23 Invited Speaker. Staying Healthy After Spinal Cord Injury. Primary and Community Care Spinal Cord Injury Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. After this session you will be able to:   
Help to prevent inappropriate ER visits   
Implement strategies for detection of common & serious health conditions after SCI   
Introduce you to the 100,000km tune-up.   
2016 Nov 18 Invited Speaker. Endocrine Metabolic Disease Risk: What’s Next? The RoBaCO Trial. 15th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Body Composition and Multi Morbidity after Spinal Cord Injury. 14th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Endocrine Metabolic Disease Risk after Spinal Cord Injury: Legitimate Intervention Targets. Tator/Turnbull Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Oct 23 Invited Speaker/Workshop Leader. New SCI Standards Introductions to People and Processes to Facilitate Adoption and Accreditation. Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Guy K, Devji T, Bertoli-Haley S, Walden K, Noonan V. This interactive workshop outlines best practices described in the SCI standards, highlight current resources available to support sites interested and/or undergoing accreditation, discuss strategies for addressing challenging standards, aids sites in preparation for Accreditation Canada tracers, enable cross site networking, and identify how participation in SCI-High will support future benchmarking and optimal care delivery.   
2015 Oct 23 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-High). Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Bayley M, Hitzig SL, Alavinia M, Farahani F. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting Oct 23, 2015.   
2015 Jun 11 Speaker. Auto Insurance Reform and SCI Rehabilitation. Ontario Ministry of Finance. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Athanasopoulos. Provided data to the Ministry of Finance to support the statement that the proposed Catastrophic Impairment Funding Thresholds for SCI are rather arbitrary and insufficient.   
2015 Jan 12 Presenter. Sarcopenic Obesity in Patients with Spinal Cord Injury: Moving Towards a Global Measure of Metabolic Disease. The Department of Physical Medicine and Rehabilitation, University of Western Ontario. London, Ontario, Canada. Presenter(s): Craven BC. Provided feedback to each of the residents following their Research Day presentations.   
2014 Oct 31 Invited Speaker. Post Debate Commentary, Techna 2014 Symposium-Robotics for Healthcare. Techna Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC, Bell R. Audit 8 hours of presentations throughout the day and provide 60 minutes of post event commentary. Available from: http://symposium.technainstitute.com/speeches.php. (Continuing Education).   
2013 Jun 13 Invited Speaker. Implications of SCI Research in Life Care Planning. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on current spinal cord injury research at the biannual Practical Strategies Conference.   
2012 Jan 19 Invited Speaker. From Hospital to Home- The Continuum of Care After SCI. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on the ABC’s of Autonomic Dysreflexia. (Presentation to Patients/Public).   
Presented Abstracts   
2016 Nov 18 Speaker. The RoBaCO Trial: Efficacy & Safety of Rosuvastatin for Preserving Bone Mass & Reducing Cardio-Metabolic Disease Risk after SCI. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 18 Research Supervisor. Selecting a Screening Tool for Depression in Spinal Cord Injury. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Titman R. (Trainee Presentation).   
Invited Meeting   
2015 Apr 15 Steering Committee Member. PRISM: Primary Care and Rehabilitation and Integration with self management for Spinal Cord Injury. Waterloo, Ontario, Canada.   
2014 Dec 17 Presenter. ONF-REPAR Meeting. ONF-REPAR. Toronto, Ontario, Canada. Presenter(s): Craven BC, Maltais D. SCI-IMPACT Team Update on Activities 2011-2014.   
2014 Sep 15 Attendee. Management of Neuropathic Pain After Spinal Cord Injury: Clinical Practice Guidelines for the Rehabilitation and Outpatient Setting. ONF/Rick Hansen Institute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Attendee. Ontario Spinal Cord Injury Research Network (OSCIRN). Ontario Neurotrauma Foundation (ONF). Toronto, Ontario, Canada.   
2012 Apr 28 Invited Speaker. Determining the therapeutic effectiveness of WBV for treatment of altered body composition after SCI.Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Podium presentation at the Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
2012 Apr 28 Invited Speaker. Introduction to the NeuroRecovery Network (NRN): Developments in Ontario, Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting April 27-29, 2012.   
2012 Apr Collaborator. Understanding the neurogenic bowel experience following spinal cord injury from the perspective of stakeholders. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Burns AS (presenter), St-Germain D, Connolly M, Hitzig SL, Guindon A, Delparte J, Craven BC, Wolfe D. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
Media Highlights of Research Activities   
2015 Dec Responsible Author for featured work. SCI Conference: A Remarkable Experience. NeuroMatters Newsletter: Winter 2015, Issue 25:. Toronto, Ontario, Canada. This article highlighted the 6th National Spinal Cord Injury Conference that was held in Toronto Oct 2nd - 4th, 2014 and illustrates the impact and experience the conference had on attendees and individuals living with a spinal cord injury. Available from: http://onf.org/system/attachments/300/original/Issue25Jan6.pdf.   
2014 Sep Responsible Author for featured work. Being a Research Participant. NeuroMatters Newsletter: Fall 2014, Issue 24. Toronto, Ontario, Canada. This issue showcased the central recruitment pilot study led by Dr. B. Catharine Craven and Professor Molly Verrier at Toronto Rehab’s Lyndhurst Centre. The article illustrates the impact of this pilot study, which assesses the feasibility of developing a centralized recruitment process to reduce the burden of research participation on participants, and discusses the future steps. Available from: http://onf.org/system/attachments/286/original/NeuroMatters Issue 24web.pdf.   
2013 Mar Responsible Author for featured work. Preventing Heart Attacks Before They Happen. NeuroMatters Newsletter: Spring 2013, Issue 21. Toronto, Ontario, Canada. This issue featured Dr. Masae Miyatani’s post-doctoral work on defining the associations between arterial stiffness and coronary artery disease risk factors in individuals with spinal cord injury. It highlights the current knowledge gap in this area and draws attention to the impact and importance of her work. Available from: http://onf.org/system/attachments/161/original/NeuroMattersIssue Spring 2013.pdf.   
4. LOCAL   
Invited Lectures and Presentations   
2017 Jan 18 Invited Speaker. Work Life Balance. UHN Research. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 8 Invited Lecturer. Epidemiology of Spinal Cord Injury (SCI). University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC, Furlan JC, Noonan VK.   
2016 Nov 1 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. UHN-Research Executive Committee. Toronto, Ontario, Canada.   
2016 Oct 26 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TREC Finance Committee. Toronto, Ontario, Canada.   
2016 Sep 30 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TRI Leadership Forum. Toronto, Ontario, Canada.   
2016 May 6 Senior Responsible Author. TRI Robotic Opportunities. Toronto Rehab Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Overview of Opportunities to fund Robotic Innovations at Toronto Rehab.   
2016 Apr 13 Speaker. Centralized Recruitment: Moving from Theoretical Framework to Implementation. UHN: Toronto Rehab Research Advisory Committee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Jones S, Brisbois L.   
2016 Feb 20 Invited Lecturer. Osteoporosis and Sublesional Osteoporosis. CAPMR. Toronto, Ontario, Canada. Presenter(s): Craven BC. A 90 minute review of Osteoporosis and Sublesional Osteoporosis management including identification of patients with high fracture risk who require therapy, selection of appropriate osteoporosis therapy, determination of therapy effectiveness and fall risk assessment and prevention guidelines.   
2015 Dec 2 Presenter. Urinary Tract Infection Quality Improvement Strategies. Toronto Rehabilitation Institute - UHN - Spinal Cord Rehabilitation Program. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 5 Invited Facilitator. Gail Aguillon, Director Adult Rehabilitation Glenrose Rehab Hospital. Joanne Zee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Popovic M. Tour of visiting administrator of Clinical and Research Activities.   
2015 Mar 23 Speaker. The 5 W’s of the Rick Hansen SCI Registry 2.0 (who, what, where, when and why). Toronto Rehab’s Spinal Cord Rehabilitation Program’s Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Farahani F. Flett H, Musselman K, Guy K. (Continuing Education).   
2014 May 29 Invited Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement and Research Participation in Spinal Cord Rehab. Toronto Rehabilitation Institute: SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): BC Craven, L Brisbois. (Continuing Education).   
2014 May 29 Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement. SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois L.   
2013 Jan 29 Invited Speaker. Panel Discussion: Neurological Disorders (Stroke, Dementia, and Spinal Cord Injuries) and their Effects on Bone Health. Centre of Excellence in Skeletal Health Assessment (CESHA). Toronto, Ontario, Canada. Centre of Excellence in Skeletal Health Assessment (CESHA): Annual Outreach Education Evening, Toronto, ON, Canada, January 29, 2013. (Continuing Education).   
2012 Nov 9 Presenter. Physiatry Academic Half Day: How to Write and Abstract. Department of Medicine University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Presented Abstracts   
2016 May 2 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) among inpatients during Spinal Cord Injury (SCI) rehabilitation-Innovations influencing rehabilitation. GTA Rehab Network. Toronto, Ontario, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zimcik H, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2015 Nov 18 Senior Responsible Author. Surgical Management and Rehabilitation of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. UHN-Toronto Rehab Research Day. Toronto, Ontario. Furlan JC, Fehlings MG, Craven BC. (Poster). (Trainee Presentation).   
2015 Nov 18 Presenter. The Rick Hansen Spinal Cord Injury Registry: Consent and Retention Rates 2010-2015. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Patsakos EM, Farahani F, Brisbois L, Flett HM, Craven BC.   
2015 Nov 18 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infections During Inpatient SCI Rehabilitation. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Alavinia M, Zimcik H, Zee J, Bayley M, Craven BC. (Presentation to Patients/Public).   
Invited Meeting   
2015 Mar 23 Attendee. RHSCIR/Walking Measures Best Practice Forum. UHN-Toronto Rehab. Toronto, Ontario, Canada.   
2014 Mar 27 Attendee. Coaching for High Performance Workshop. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada.   
2014 Jan 31 Invited Speaker. Centralized Recruitment Strategies for Optimizing Patient Engagement & Research Participation. Toronto Rehabilitation Institute Leadership Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Zeman K, Brisbois L.   
Invited Meetings   
2012 Nov 7 Invited Speaker. UHN REB Retreat. UHN Research Ethics Board (REB). Toronto, Ontario, Canada. Presenter(s): Craven BC. Presentation on the Toronto Rehab central recruitment process and data on the research participant pool.   
2012 Apr 24 Invited Speaker. Peer Mentor Meeting: Implementing the Osteoporosis Canada Guidelines: Clinical Pearls for Physiatrists. Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Invited Panel Discussion   
2017 Jan 18 Panel Member. TRI Mentorship Series: Work-Life Balance. Susan Jaglal, Toronto Rehab Research Institute. Toronto, Ontario, Canada. Presenter(s): McGilton K, Alter D, Craven BC, Rochon E, Kontos P. Advice for Medical and Research regarding maintaining a work-life balance.   
Poster   
2016 Nov 17 Collaborator. Quality Reporting of Carotid Intima-media Thickness Methodology: Current State of the Science in the Field of Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Hoskin J, Miyatani M, Craven BC. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Alavinia SM, Craven BC, Flett H, Farahani F, Hitzig SL, Bayley M. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Categories Among Individuals With Chronic SCI. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Nov 17 Collaborator. Perspectives on Personalized Adapted Locomotor Training from Canadian Participants with Sub-acute Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. (Trainee Presentation).   
2014 Dec 1 Collaborator. Trunk Strength and Function in Individuals with Non-Traumatic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Gabison S, Verrier M, Craven BC, Nadeau S, Duclos C, Gagnon D, Roy A. Abstract #52. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Exploring the Associations between Arterial Stiffness and Spinal Cord Impairment. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Szeto M, Moore CD, Oh PI, McGillivray C, Craven BC. Abstract #58. (Trainee Presentation).   
2014 Dec 1 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Laing AC, Frank-Wilson A, Kontulainen SA, Papaioannou A, Adachi JD, Giangregorio LM. Abstract #59. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, Papaioannou A, Thabane L, Craven BC. Abstract #61. (Trainee Presentation).   
2014 Dec 1 Collaborator. Use of diffusion tensor imaging for diagnosing and characterizing complex TBI populations. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Bradbury C, Budsin B, Sharma B, Mikulis D, Corbie J, Hitzig S, Craven BC, Green R. Abstract #78.   
2013 Nov 26 Senior Responsible Author. Metabolic Syndrome (MetS) Risk Factors are Insufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh PI, Craven BC. (Trainee Presentation).   
2013 Nov 26 Senior Responsible Author. Preliminary Face Validity of Target SCIM III Median Values for Prediction of Functional Outcomes after Traumatic SCI. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2013 Nov 26 Senior Responsible Author. Implications of Spinal Cord Injury Research in Life Care Planning. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Hadi S, Craven BC.   
2013 Nov 26 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Jan 25 Senior Responsible Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Current Concepts in Balance, Fitness and Mobility: Perspectives on Intensity in Rehabilitation, University Health Network. Toronto, Ontario, Canada. Presenter(s): Szeto M, Delparte JJ, Giangregorio LM, Popovic MR, Craven BC.   
2012 Nov 23 Principal Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio LM, Popovic MR.   
2012 Nov 23 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Nov 23 Senior Responsible Author. Associations Between Arterial Stiffness & Heart Disease Risk Factors In People with Chronic Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Nov 23 Principal Author. Exploring the Feasibility of Central Recruitment for Subacute SCI Patients. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois LM, Verrier MC.   
2012 Nov 23 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Feb 27 Coauthor. The Development of an On-line Quality of Life Outcomes Tool-Kit for Spinal Cord Injury Professionals. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Panjwani A, Routhier F, Noreau L.   
2012 Feb 27 Senior Responsible Author. Central Recruitment Process: Exploring Feasibility and Scalability for SCI Research Studies. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Verrier MC, Carson JR, Brisbois L, Craven BC.   
Presentation   
2015 May 5 Presenter. Spinal Cord Rehab Program. Toronto, Ontario, Canada. Presenter(s): Zee J, Flett H, Craven, BC. Articulation of the Program and Health Services Needs of a High Reliability Organization.- For UHN CEO Peter Pisters.   
5. INTER PROVINCIAL ONTARIO/QUEBEC   
Consensus Meeting   
2015 Dec 9 Co-Lead (Craven, Gagnon). ONF-REPAR Phase III: SCI Strategic Planning Consensus Meeting. Toronto, Ontario, Canada. Presenter(s): Craven BC, Gagnon D, Jaglal S, Routhier F, Hitzig S, Maltais D, Wolfe D, Athanasopoulous P. Consensus Meeting to articulate the endocrine metabolic disease risk reduction strategy for the ONF-Repar funded Spinal Cord Injury Inter provincial working group.   
6. OTHER   
Presented and Published Abstracts   
2015 Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada?   
  
Publication Details:   
Gagnon D, Verrier MC, Duclos C, Nadeau S, Craven BC. Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada? Arch Phys Med Rehabil. 2015;(2014 Dec17). D-13-00909. Coauthor or Collaborator.   
G. Teaching and Design   
1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION   
2016 Nov - 2016 Nov 1 Creating a Powerful Speaking Style, Postgraduate MD, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation   
H. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 May - 2014 Sep Primary Supervisor. B. Sc. Piramilan Thuraisingam. Supervisee Position: Master of Physical Therapy, Supervisee Institution: University of Western Ontario. Awards: Enrollment in Ross University (Dominica)   
♣ Dr. G. E. Hall Scholarship, The University of Western Ontario   
♣ Queen Elizabeth II Aiming for the Top Scholarship, The University of Western Ontario   
♣ Four Year Continuing Admission Scholarship, The University of Western Ontario   
♣ Dean’s Honor List, The University of Western Ontario. Supervisor(s): Craven BC. Completed 2012.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Paul Wolfe. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Amber Knott. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Primary Supervisor. B. Sc. Zachary Brown. Supervisee Institution: University of Waterloo. RHSCIR.   
2013 Jun - 2015 Jun Primary Supervisor. B. Sc. Eleni Patsakos. Supervisee Institution: University of Toronto. Rick Hansen Spinal Cord Injury Registry (RHSCIR).   
2013 Jun - 2014 Sep Primary Supervisor. B. Sc. Amit Chopra. Supervisee Institution: University of Toronto. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study., Completed 2014.   
2013 Jan - 2014 Apr Co-Supervisor. B. Sc. Jenny Quach. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2012 May - 2012 Aug Primary Supervisor. B. Sc. Claire Tardif. Supervisee Institution: McGill University. Increasing the efficiency and diagnostic yield of lower extremity bone density assessment among patients with neurological impairment: A comparison of new and existing technology. Completed 2012.   
Graduate Education   
2017 Jun - 2020 May Co-Supervisor. PhD. Jawad Christie, Rehabilitation Science, Health Services and Policy Research. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Fractures and Aging in the Chronic Spinal Cord Population. Supervisor(s): Craven BC, Jaglal S.   
2015 Jul - 2017 Jun Primary Supervisor. PhD. Sharon Gabison. Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Assessment of Ischial Tissue Texture. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Verrier M. Collaborator(s): Craven BC.   
2011 Jan - 2012 Dec Primary Supervisor. Postdoctoral Fellow- Mentor-Mentee Training Award. Sander L. Hitzig. Supervisee Position: Senior Research Associate, Supervisee Institution: University of Toronto. Capacity building and economic analysis related to secondary health complications after spinal cord injury. Awards: Ontario Neurotrauma Foundation (ONF) Mentor-Mentee Training Award. Collaborator(s): Mittmann N. Completed 2012.   
Postgraduate MD   
2015 Jul - present Primary Supervisor. Core Program Physiatry. Rebecca Titman. Supervisee Position: PGY2 Physiatry Resident, Supervisee Institution: University of Toronto. Screening for mood disorders during inpatient spinal cord injury rehabilitation.   
2013 Dec - 2014 Apr Primary Supervisor. Clinical Fellow. Rohit Bhide. Supervisee Position: Clinical Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Impact of Service Interruptions on Inpatient Length of Stay.   
2011 Jul - 2016 Jun Primary Supervisor. Core Program Physiatry. Sivakumar Gulasingam. Supervisee Position: PGY5 Physiatry Resident, Supervisee Institution: University of Toronto. Clinical Utility of Botulinum Neurotoxin A (BoNTA) Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesicular BoNTA for Neurogenic Detrusor Overactivity. Collaborator(s): Hassouna M.   
Postdoctoral Research Fellow (PhD)   
2017 Jan - 2019 Dec Primary Supervisor. Year I. Brian Chan. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Economic Evaluation of Secondary Health Conditions and New Technology. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Craven BC, Woodchis W.   
2015 Nov - 2017 Oct Primary Supervisor. Year I. Tomas Cervinka. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. P-QCT, Bone Quality and Neurological Impairment. Awards: Spinal Cord Injury Ontario Fellowship   
Osteoporosis Canada Tim Murray Training Award (1500 CAD)   
Canadian Musculoskeletal Conference Young Investigators Day Poster Competition (100 CAD).   
2015 Jul - 2017 Jun Primary Supervisor. Year I. Mohammad Alavinia. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Rehab Care Indicators. Supervisor(s): M Bayley.   
2013 Oct - 2014 Oct Primary Supervisor. Chelsea Pelletier. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Body Composition in Spinal Cord Injury and Related Multimorbidity.   
2013 Oct - 2014 Oct Primary Supervisor. Sander Hitzig. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute.   
2012 Jan - 2014 Apr Primary Supervisor. Masae Miyatani. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Novel Protocol for Detection of Asymptomatic Heart Disease After Spinal Cord Injury. Awards: Craig H. Neilsen Foundation Postdoctoral Fellowship (2012-2014) $135,000 (US).   
Clinical Research Fellow (MD)   
2015 Jul - 2016 Jun Primary Supervisor. PGY7. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - Rumsey & Lyndhurst Sites of TRI’ Sunnybrook. Awards: November 2015 ORT Conference Travel Awards Program   
April 2016 American Academy of Neurology Travel Award   
May 2016 64th Annual CAPMR Meeting: 2nd Place Case Report Category   
June 2016 Wings for Life Foundation Fellowship. Supervisor(s): Craven BC Collaborator(s): Robinson L, Bruno T.   
2014 Sep - 2015 Jul Co-Supervisor. PGY6. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - TWH and Toronto Rehabilitation Institute; Sunnybrook. Supervisor(s): Craven BC, Tang-Wai D.   
2. OTHER SUPERVISION   
Graduate Education   
Thesis Committee Member   
2009 Jul - present PhD. Andresa Marinho, Rehabilitation Science. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Aquatic Body Weight Support as a Novel Approach for Gait Training after Incomplete Spinal Cord Injury (SCI). Awards: CIHR-Vanier Canada Graduate Scholarship Program ($50,000 annum). Collaborator(s): Verrier MM, Popovic MR, McIlroy W, Masani K.   
2017 Jun - 2019 May MSc. John Shepherd. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Approaches to Using Primary Care EMR Data to Study Community - Living Persons with Spinal Cord Injury in Canada. Collaborator(s): Moineddin, R, Tu K.   
2017 Jan - 2020 Jan PhD. Janelle Unger, Rehabilitation Science, Rehabilitation Sciences Institute. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Balance Training for people with Spinal Cord Injury. Supervisor(s): Musselman K. Collaborator(s): Craven BC, Mansfield A.   
2016 Dec - 2019 Dec PhD. Hardeep Singh. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Administrator and Allied Health Prospective on Falls in SCI Rehabilitation. Supervisor(s): Musselman KE. Collaborator(s): Silver M, Craven BC, Jaglal S.   
2015 Sep - 2018 May PhD. Rasha El-Kotob. Supervisee Institution: University of Waterloo. TBD. Supervisor(s): Giangregorio L, Craven BC.   
2015 Jan - 2017 Dec PhD. Gayathiri Jeyathevan, Health Policy, Management and Evaluation. Supervisee Institution: University of Toronto. Awards: Craig H. Neilson Foundation. Supervisor(s): Susan Jaglal. Collaborator(s): Craven BC, Cameron J.   
2015 Jan - 2017 Jun PhD. Teresa Valenzano, Rehabilitation Science. Supervisee Institution: University of Toronto. Respiratory Impairment and Swallowing Dysfunction in Spinal Disorders Research Proposal. Supervisor(s): Catriona Steele. Collaborator(s): Brooks D, Craven BC.   
2013 Jan - 2015 Jan MSc. Rasha El-Kotob. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Assessing Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Spinal Cord Injury. Collaborator(s): Verrier M, Oh P, Ditor D, Mathur S.   
2012 Jan - 2014 May MSc. Cameron Moore. Supervisee Institution: University of Waterloo/ Department of Kinesiology. Muscle Quantity and Quality after Chronic Spinal Cord Injury: An Investigation of Calf- Muscle Cross-Sectional Area and Density After Long Term Paralysis. Awards: Queen Elizabeth II -Graduate Scholarship in Science and Technology   
Awarded January 2013   
  
NET Team Excellence Award 2013, Toronto Rehab’s 9th Annual Research Day   
Awarded November 2013. Collaborator(s): Giangregorio LM, Laing A. Completed 2014.   
2009 Jul - 2012 Feb MSc. Kristina Guy. Supervisee Position: Professional Practice Leader Physiotherapy, Supervisee Institution: Toronto Rehabiliation Institute - UHN, Brain and Spinal Cord Program. Clinical Measures of Walking Ability using the Gait Rite in Motor Incomplete SCI. Awards: Masters. Collaborator(s): Verrier MC, Popovic MR, McIlroy W. Completed 2012.   
2008 Jul - 2012 May PhD. Sara Guilcher. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael’s Hospital. An Investigation of the Journey of Care Related to Secondary Health Conditions for Community-Dwelling Persons with Spinal Cord Injury. Awards: Ontario Student Opportunity Trust Funds 2006-2007 $13,000   
Ontario Training Collaborative Program in Health service and Policy Research 2007-2009 ($13,000)   
Graduate studentships in Health Services Research and Spinal Cord Ontario Neurotrauma Foundation 2007-2011 ($10,000/year renewable)   
Enid Walker Award Women’s College Research Institute 2007-2011 ($25,000/year renewable)   
Social Sciences and Humanities Research Council of Canada 2010 Community Research Alliamce ($10,000). Collaborator(s): Jaglal SB, Lemieux-Charles L, McColl MA, Casciaro T. Completed 2012.   
Ad Hoc Advisor   
2009 Jul - 2012 Jul PhD. Arif Jetha. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Employment in Kids with Disabilities.   
Postgraduate MD   
Resident Research Supervisor   
2010 - present Core Program Physiatry. Amanda Mayo. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Fractures among Boys with Duchenne Muscular Dystrophy: Frequency, Skeletal Distribution and Association(s) with Steroid Therapy and Bone Mass. Collaborator(s): Biggar D, McAdam L.   
2014 Nov - 2014 Dec Core Program PGY4 Physiatry. Sivakumar Gulasingam. Supervisee Position: Physiatrist, Supervisee Institution: UHN-Toronto Rehab. Botulinum Neuorotoxin a - Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesical Botulinum Neurotoxin A for Neurogenic Detrusor Overactivity. Supervisor(s): Craven BC. Collaborator(s): Hassouna M, Carr L. Completed 2014.   
2012 Apr - 2014 Oct Core Program Physiatry. Christian Fortin. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Rehabilitation outcomes of patients with metastatic extradural spinal cord compression. Collaborator(s): Jaglal SB, Voth J. Completed 2014.   
2011 - 2014 Oct Core Program Physiatry. Derry Dance. Supervisee Position: PGY5 Physiatry Resident. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Collaborator(s): Ditor D, Hassouna M, Campbell K. Completed 2014.   
Postdoctoral Research Fellow (PhD)   
Secondary Supervisor   
2013 Dec - 2015 Jan Year I. Cheryl Lynch. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University of Waterloo/UHN-Toronto Rehabilitation Institute. Limitation of CAROC and FRAX for predicting fracture after SCI. Supervisor(s): LM Giangregorio. Collaborator(s): M Popovic.   
Other   
Volunteer Supervisor   
2014 Jan - 2014 Oct Mir Hatef Shojaei. Supervisee Position: Volunteer, Supervisee Institution: UHN-Toronto Rehabilitation Institute. Supervisor(s): Craven BC. Collaborator(s): Miyatani M.

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**A systematic review on the Health Economics of the spinal cord injury or disease among veterans of war**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Julio C. Furlan   
Assistant Professor   
  
1. EDUCATION   
Degrees   
2004 - 2006 MSc, Clinical Epidemiology, Department of Health Policy, Management and Evaluation, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. David Urbach   
1994 - 1999 MBA, Healthcare System and Hospital Administration, São Paulo Business School, Getúlio Vargas Foundation, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana Maria Malik   
1994 - 1999 PhD, Surgery, Department of Surgery, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Anoi Castro Cordeiro   
1984 - 1999 BA, LL.B. Mackenzie University, São Paulo, São Paulo, Brazil   
1983 - 1988 MD, University of São Paulo, São Paulo, São Paulo, Brazil   
Postgraduate, Research and Specialty Training   
2014 Sep 1 - 2016 Jun 30 Clinical Fellowship, Neurorehabilitation and Neural Repair, Department of Medicine, Division of Physical Medicine and Rehabilitation and Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. B. Catharine Craven, Dr. David Tang-Wai   
2009 Jul 1 - 2014 Jun 30 Residency, Neurology, Department of Medicine, Division of Neurology, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): Dr. Marika Hohol, Dr. David Tang-Wai   
2003 - 2007 Clinical Research Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Michael G. Fehlings   
2001 - 2003 Post-Doctoral Fellowship, Spinal Cord Injury, Department of Surgery, Division of Neurosurgery, Toronto Western Hospital, University Health Network, Toronto, Ontario, Canada, Supervisor(s): Dr. Andrei V. Krassioukov   
2000 - 2001 Clinical Research Fellowship, Head and Neck Surgery, Head and Neck Surgery, Department of Surgery, Mount Sinai Hospital, Toronto, Ontario, Canada, Supervisor(s): Dr. Irving B. Rosen   
1994 - 1996 Clinical Fellowship, Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 Feb 1 - 1994 Jan 31 Complementary Specialization (similar to residency training), Head and Neck Surgery, Department of Surgery, Division of Head and Neck Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Alberto R. Ferraz   
1992 - 1993 Post-Graduate Diploma, Occupational Medicine, Department of Preventive Medicine, Faculty of Medicine, São Francisco University, São Paulo, São Paulo, Brazil   
1992 - 1993 Post-Graduate Diploma, Hospital Administration and Health Systems, São Paulo Business Administration School, Getúlio Vargas Foundation and University Hospital, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil   
1991 Feb 1 - 1992 Jan 31 Residency, Hospital Administration and Healthcare Systems, Department of Preventive Medicine, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Ana M. Malik   
1989 Feb 1 - 1991 Jan 31 Residency, General Surgery, Department of Surgery, Division of General Surgery and Trauma Surgery, Faculty of Medicine, University of São Paulo, São Paulo, São Paulo, Brazil, Supervisor(s): Dr. Dario Birolini   
Qualifications, Certifications and Licenses   
2015 May - present Fellow, Neurology, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 999157   
2009 Jul - present Canadian Medical Protective association (CMPA), Toronto, Ontario, Canada, License / Membership #: 20082118   
2009 Jul - present College of Physicians and Surgeons of Ontario (CPSO), Toronto, Ontario, Canada, License / Membership #: 090628   
2007 - present Licentiate, Medical Council of Canada (LMCC), Ottawa, Ontario, Canada, License / Membership #: 108367   
1999 May - present Organization of the Lawyers of Brazil, São Paulo, São Paulo, Brazil, License / Membership #: 167674   
1993 Aug - 1999 Nov Member, Head and Neck Surgery, Head and Neck Surgery, Society of Head and Neck Surgery, São Paulo, São Paulo, Brazil   
1988 Feb - 1999 Nov Regional Council of Medicine, São Paulo, São Paulo, Brazil, License / Membership #: 62585   
2. EMPLOYMENT   
Current Appointments   
2016 Sep 1 - present Assistant Professor, Division of Physical Medicine and Rehabilitation, Medicine, Faculty of Medicine, University of Toronto, Toronto, Ontario, Canada   
2016 - present Clinician Investigator (Neurologist), Division of Physical Medicine and Rehabilitation, Toronto Rehabilitation Institute, Lyndhurst Centre, Toronto, Ontario, Canada   
Previous Appointments   
RESEARCH   
2007 - 2012 Associate Research Scientist, Department of Genetics and Development, Toronto Western Research Institute, University Health Network, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
INTERNATIONAL   
Received   
  
2016 Apr Fellow Research Travel Scholarship, American Academy of Neurology, Vancouver, British Columbia, Canada. (Distinction)   
2014 Oct CNS Resident Award for the best research paper, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
2014 Oct Depuy-Synthes Award, Congress of Neurological Surgeons, Boston, Massachusetts, United States. (Distinction)   
for resident research on spinal cord and spinal column injury for the best research paper.   
2012 Apr Resident Research Travel Scholarship, American Academy of Neurology, New Orleans, Louisiana, United States. (Distinction)   
2010 Apr Resident Research Travel Scholarship, American Academy of Neurology, Toronto, Ontario, Canada. (Distinction)   
2009 Sep Award for the Best Paper Published by an ASIA Member, Congress on Spinal Cord Medicine and Rehabilitation & 35th Annual Scientific Meeting of ASIA, Dallas, Texas, United States. (Distinction)   
2008 Jun Second Prize ASIA Poster Award, 34th Annual Meeting of the American Spinal Injury Association, San Diego, California, United States. (Distinction)   
2007 Nov - 2007 Dec Second Place Clinical Research Award, Cervical Spine Research Society’s Research Committee, San Francisco, California, United States. (Distinction)   
2006 Nov - 2006 Dec Second Place Basic Science Research Award, Cervical Spine Research Society’s Research Committee, West Palm Beach, Florida, United States. (Distinction)   
2006 May Travel Award, 8th International Neurotrauma Symposium, Rotterdam, Netherlands. (Distinction)   
2005 Nov Travel Award, 23rd Annual National Neurotrauma Society Symposium, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
2004 Sep Travel Award, 7th International Neurotrauma Symposium, Adelaide, Australia. (Distinction)   
for a high ranked abstract.   
2004 Mar Poster Award for Excellence in Clinical Spine Research, 2004 Annual Meeting of the American Association of Neurological Surgeons / CNS Section on Disorders of the Spine and Peripheral Nerves, San Diego, California, United States. (Distinction)   
2003 Oct Travel Award, 2003 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Ottawa, Ontario, Canada. (Distinction)   
for high ranked abstracts.   
2003 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Palm Beach, Florida, United States. (Distinction)   
based on high ranked abstracts.   
2003 Jul 2003 ISAN Prize for the best clinical study, 2003 Meeting of the International Society for Autonomic Neuroscience, Calgary, Alberta, Canada. (Distinction)   
2002 Oct Travel Award, 2002 Canadian Diabetes Association/Canadian Society of Endocrinology and Metabolism, Vancouver, British Columbia, Canada. (Distinction)   
for high ranked abstracts.   
2001 Sep Travel Award, 73rd Annual Meeting of the American Thyroid Association, Washington, District of Columbia, United States. (Distinction)   
based on high ranked abstracts.   
  
NATIONAL   
Received   
  
2016 May 2nd Place Case Report Presentation, 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation, London, Ontario, Canada. (Distinction)   
2015 Jun Andre Barbeau Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Basic Science Research.   
2015 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Toronto, Ontario, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Jun Francis McNaughton Memorial Prize, Canadian Neurology Society, Vancouver, British Columbia, Canada. (Distinction)   
for the best paper in Clinical Research.   
2011 Resident Research Prize, 2011 PSI Foundation, Toronto, Ontario, Canada. (Distinction)   
for Excellence in Research Paper.   
2010 Oct First Place Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2010 Oct The People’s Choice Award, 4th National Spinal Cord Injury Conference, Niagara Falls, Ontario, Canada. (Distinction)   
for the best poster presentation.   
2010 Jun Meloche Prize, Canadian Headache Society, Quebec City, Quebec, Canada. (Distinction)   
2009 May Best Clinical Science Research Poster Award, Annual Conference of the Canadian Pain Society, Quebec City, Quebec, Canada. (Distinction)   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2008 Nov Poster Winner Award, 3rd National Spinal Cord Injury Conference & 16th Interurban Spinal cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Research.   
2006 Oct First Place Award, 2nd National Spinal Cord Injury Conference, Toronto, Ontario, Canada. (Distinction)   
for the highest ranked abstract on Patient Care.   
2005 Nov Travel Award, 2005 Annual Scientific Meeting of the Canadian Society of Internal Medicine, Toronto, Ontario, Canada. (Distinction)   
2004 Dec Award of Merit in Clinical Research, 2004 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
2004 Jun The Neurocritical Care Prize, 39th Canadian Congress of Neurological Science, Calgary, Alberta, Canada. (Distinction)   
for the best paper on neurocritical care.   
2002 2002 D. Harold Copp Young Investigator in Training Award, Annual CDA/CSEM Meeting, Vancouver, British Columbia, Canada. (Distinction)   
for the abstract in endocrinology and metabolism.   
1991 Sep Anísio Costa Toledo Prize, XIII Brazilian Congress of Head and Neck Surgery, Caldas Novas, Goiás, Brazil. (Distinction)   
for outstanding Resident study in Head and Neck Surgery.   
  
PROVINCIAL / REGIONAL   
Received   
  
2007 Oct First Place Award, Research in the 15th Interurban Spinal Cord Injury Conference, Hamilton, Ontario, Canada. (Distinction)   
for the highest ranked abstract.   
2003 Dec Award of Merit in Basic Science, 2003 Heart and Stroke Clinical Update, Heart and Stroke Foundation, Toronto, Ontario, Canada. (Distinction)   
for the second highest ranked poster.   
  
LOCAL   
Received   
  
2016 Apr OTR Conference Travel Award, University Health Network, Toronto, Ontario, Canada. (Distinction)   
2009 Oct Horsey Prize for Clinical Research (Second Place), Co-author, Division of Neurosurgery, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2008 May First Prize in the Wyeth Award poster competition, 2008 Gallie Day, Department of Surgery, University of Toronto, Toronto, Ontario, Canada. (Distinction)   
2006 Jun Runner-up Award for the second best oral presentation, 2006 Toronto Western Research Institute Research Day, Toronto, Ontario, Canada. (Distinction)   
2006 May First Place Award for the best presentation, 2006 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
2004 Jun First Place Award for the best presentation, 2004 Toronto Western Hospital Clinical Research Half-Day, Toronto, Ontario, Canada. (Distinction)   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 Dec - present Member, Cervical Spine Research Society (CSRS), 32619-1   
2010 - present Member, American Academy of Neurology (AAN), 172625   
2010 - present Member, Canadian Neurological Science Federation/Canadian Neurological Society (CNSF/CNS), 4751   
2009 Jun - present Member, Canadian Medical Association (CMA), 152353   
2009 Jun - present Member, Ontario Medical Association (OMA), 1065762   
2004 - present Member, American Spinal Injury Association (ASIA), 109   
2004 - present Member, National Neurotrauma Society (NNS)   
  
Administrative Activities   
NATIONAL   
7th National Spinal Cord Injury Conference   
2016 Apr 14 - present Member, Planning Advisory Committee, Toronto, Ontario, Canada.   
  
LOCAL   
Toronto Rehabilitation Institute   
2016 Nov 9 - present Research Volunteer Pool (RVP) Steering Commitee, Toronto, Ontario, Canada.   
  
Peer Review Activities   
GRANT REVIEWS   
Internal Grant Reviewer   
2015 - present Toronto Rehabilitation Institute, Number of Reviews: 2   
  
MANUSCRIPT REVIEWS   
Reviewer   
2014 - present Acta Neurologica Scandinavia, Number of Reviews: 1   
2014 - present CMAJ, Number of Reviews: 4   
2014 - present PLoS, Number of Reviews: 2   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Acute Spinal Cord Injury. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings, and James Harrop. Collaborators: Drs. Jefferson R. Wilson, Anthony Burns, Brian Kwon, Lindsay Tetreault, Bizhan Aarabi, Paul Anderson, Paul M. Arnold, Darrel Brodke, Kazuhiro Chiba, Gregory Hawryluk, Langston Holly, Susan Howley, Tara Jeji, Sukhvinder Kalsi-Ryan, Mark Kotter, Shekar Kurpad, Ralph Marino, Allan R. Martin, Eric Massicotte, Geno Merli, Hiroaki Nakashima, Narihito Nagoshi, Katherine Palmieri, Mohammed Shamji, Anoushka Singh, Eve Tsai, Alexander.   
This guideline is divided into five sections. The following sections describe the key knowledge gaps, previous published guidelines and rationale for each topic: (a)Timing of Surgical Decompression; (b) The Use of Methylprednisolone Sodium Succinate; (c) The Type and Timing of Anticoagulation Prophylaxis; (d) The Role of Baseline Magnetic Resonance Imaging in Clinical Decision-Making and Prognostication; and (e) The Type and Timing of Rehabilitation.   
2015 - present Member of the Guideline Development Group. A Clinical Practice Guideline for the Management of Patients with Degenerative Cervical Myelopathy. Toronto Western Hospital, Toronto, Ontario, Canada. Collaborator(s): Co-chairs: Drs. Michael G. Fehlings and Jeffrey C. Wang. Collaborators: Drs. Lindsay A. Tetreault, Mohammed Shamji, Daniel Riew, James Middleton, Bizhan Aarabi, Paul M. Arnold, Darrel Brodke, Anthony Burns, Simon Carette, Robert Chen, Kazuhiro Chiba, James Harrop, Langston Holly, Sukhvinder Kalsi-Ryan, Mark Kotter, Brian Kwon, Allan R. Martin, James Milligan, Hiroaki Nakashima, Narihito Nagoshi, John Rhee, Anoushka Singh, Sumeet Sodhi, Jefferson Wilson, Albert Yee.   
The main objective of this guideline is to outline how to best manage patients with myelopathy and nonmyelopathic patients with evidence of cervical cord compression. Five systematic reviews were conducted to summarize the current body of evidence. Recommendations are provided for: (a) Patients with Severe DCM; (b) Patients with Moderate DCM; (c) Patients with Mild DCM; (d) Nonmyelopathic patients with evidence of cord compression without signs and symptoms of radiculopathy; and (e) Nonmyelopathic patients with image evidence of cord compression and clinical and/or electrophysiological evidence of radiculopathy.   
2009 - present Topic leader. Epidemiology of Traumatic SCI. The SCIRE Project, Vancouver, British Columbia, Canada. Supervisor(s): Furlan, Julio Cesar. Collaborator(s): Krassioukov, Andrei V.; Miller, William C.; Trenaman, Logan M.   
“Epidemiology of Traumatic SCI” is 1 of 17 topics relevant to SCI rehabilitation and community reintegration. The members of the Spinal Cord Injury Research Evidence (SCIRE) Project have been reviewing, evaluating and translating research knowledge into concise and clear reports on the best SCI rehabilitation practices for health professionals and other stakeholders. The most recent version of the reports is publically available at www.scireproject.com.   
  
C. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2010 - 2012 Principal Investigator. The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Christopher Reeve Foundation. 120,000 USD. [Grants]   
  
2009 Principal Investigator. Economic impact analysis and process benchmarking appraisal of early surgical decompression for traumatic cervical spinal cord injury. Rick Hansen Foundation and SCI Solutions Network – Rapid Response Grant. 97,517.14 CAD. [Grants]   
  
2008 - 2009 Principal Investigator. Economic impact of early surgical decompression for traumatic spinal cord injury: Cost-effectiveness and cost utility analyses using insurer-based health costing data. Cervical Spine Research Society. 25,477 USD. [Grants]   
  
2007 - 2011 Co-Investigator. Surgical versus nonoperative treatment of metastatic epidural spinal cord compression. AOSpine International. PI: Fehlings, Michael. 304,020 USD. [Grants]   
  
2005 - 2006 Principal Investigator. The effects of gender on outcomes after traumatic spinal cord injury: A combined approach using bioinformatics and molecular/confocal analysis of injured spinal cord tissue. Henry A. Beatty Scholarship. Collaborator(s): Dr. Michael Fehlings. 12,000. [Grants]   
  
2. SALARY SUPPORT AND OTHER FUNDING   
Personal Salary Support   
2016 - 2018 Salary support award. Wings for Life Research Foundation. 114,000 EUR. Salzburg, Austria.   
  
Trainee Salary Support   
2013 Jul - 2014 Jun A cost-utility comparing IVIg with PLEX in the management of patients with myasthenia gravis. Joseph M West Memorial Fund and Miriam Neveren Memorial Award (University of Toronto). 14,634 CAD. Toronto, Ontario, Canada.   
  
2012 Jul - 2013 Jun Serum hemoglobin concentration on admission as a potential predictor of outcomes after acute stroke. Chisholm Memorial Fellowship, William H. Fenwick Research Fellowship and Joseph M. West Family Memorial Fund (University of Toronto). 12,050 CAD. Toronto, Ontario, Canada.   
  
2011 Jul - 2012 Jun White blood cell and differential counts as a marker of prognosis after acute ischemic stroke. Joseph M. West Family Memorial Fund, Chisholm Memorial Fellowship, Edward Christie Stevens Fellowship in Medicine (University of Toronto). 10,312.48 CAD. Toronto, Ontario, Canada.   
  
2010 Jul - 2011 Jun The impact of age on inflammation, neural apoptosis and axonal survival after spinal cord injury in man. Edward Christie Stevens Fellowship, Javenthey Soobiah Scholarship, Nellie L. Farthing Fellowship, William S. Fenwick Fellowship (University of Toronto). 19,960 CAD. Toronto, Ontario, Canada.   
  
D. Publications   
1. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Craven BC. Psychometric analysis and critical appraisal of the original, revised, and modified versions of the Japanese Orthopaedic Association score in the assessment of patients with cervical spondylotic myelopathy. NEUROSURGICAL FOCUS. 2016 Jun;40(6):E6, 1-15. Principal Author.   
2. Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin with plasma exchange in the management of patients with myasthenia gravis: Different perspectives for different payers. MUSCLE AND NERVE. 2016 Jun;53(6):872-6. Principal Author.   
3. Furlan JC, Craven BC, Massicotte EM, Fehlings MG. Early versus delayed surgical decompression of spinal cord after traumatic cervical spinal cord injury: A cost-utility analysis. WORLD NEUROSURGERY. 2016 Apr;88:166-74. Principal Author.   
4. Furlan JC, Fang J, Silver FL. Outcomes after Acute Ischemic Stroke in Patients with Thrombocytopenia or Thrombocytosis. JOURNAL OF THE NEUROLOGICAL SCIENCES. 2016 Mar;15(362):198-203. Principal Author.   
5. Furlan JC, Verocai F, Palmares X, Fehlings MG. Electrocardiographic abnormalities in the early stage following traumatic spinal cord injury. SPINAL CORD. 2016 Feb 16. Epub ahead of print. Principal Author.   
6. Furlan JC, Fang J, Silver FL. Acute Ischemic Stroke and Abnormal Blood Hemoglobin Concentration. ACTA NEUROLOGICA SCANDINAVICA. 2015 Oct 20. Epub ahead of print. Principal Author.   
7. Furlan JC, Chui MH, Croul SE, Kongkham P. Mystery Case: Tanycytic ependymoma of the conus medullaris - a rare cause of low back pain. NEUROLOGY. 2014 Jun 17;82(24):e212-3. Principal Author.   
8. Hawryluk GWJ, Furlan JC, Austin J, Fehlings MG. Individual Characteristics and Management Decisions Affect Outcome of Anticoagulated Patients with Intracranial Hemorrhage. WORLD JOURNAL OF NEUROSURGERY. 2014 May;81(5-6):742-51. May-Jun. Coauthor or Collaborator.   
9. Furlan JC, Henri-Bhargava AR, Freedman M. Clomipramine in the treatment of compulsive behavior in frontotemporal dementia: A case series. ALZHEIMER DISEASE & ASSOCIATED DISEASES. 2014;28(1):95-8. Principal Author.   
10. Furlan JC. Autonomic dysreflexia: A Clinical emergency. JOURNAL OF TRAUMA AND ACUTE CARE SURGERY. 2013 Sep;75(3):496-500. Principal Author.   
11. Furlan JC, Sander L., Hitzig, B., Catharine Craven. The influence of age on functional recovery of adults with spinal cord injury or disease after inpatient rehabilitative care. AGING CLINICAL AND EXPERIMENTAL RESEARCH. 2013 Aug;25(4):463-71. Principal Author.   
12. Furlan JC, Fehlings MG. Blood Alcohol Concentration as a Determinant of Outcomes after Traumatic Spinal Cord Injury. EUROPEAN JOURNAL OF NEUROLOGY. 2013 Jul;20(7):1101-6. Principal Author.   
13. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Global incidence and prevalence of traumatic spinal cord injury. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):456-64. Principal Author.   
14. Arvin B, Kalsi-Ryan S, Mercier D, Furlan JC, Massicotte EM, Fehlings MG. Pre-operative MRI imaging is associated with baseline neurological status and can predict postoperative recovery in patients with cervical spondylotic myelopathy. SPINE. 2013 Jun 15;38(14):1170-6. Coauthor or Collaborator.   
15. Furlan JC, Tung K, Fehlings MG. Process Benchmarking Appraisal of Early Surgical Decompression of Spinal Cord following Traumatic Cervical Spinal Cord Injury: Opportunities to Enhance the Time to Definitive Treatment. JOURNAL OF NEUROTRAUMA. 2013 Mar 15;30(6):487-91. Principal Author.   
16. Furlan JC, Hawryluk GWJ, Austin J, Fehlings MG. Spinal Hemorrhage during Anticoagulation: A Unique Form of Central Nervous System Hemorrhage. JNNP. 2012 Jul;83(7):746-52. Principal Author.   
17. Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. The combined use of surgery and radiotherapy to treat patients with epidural cord compression due to metastatic disease: A cost-utility analysis. NEURO-ONCOLOGY. 2012 May;14(5):631-40. Principal Author.   
18. Nelli JM, Nicholson K, Fatima Lakha S, Louffat AF, Chapparo L, Furlan JC, Mailis-Gagnon A. Use of a modified Comprehensive Pain Evaluation Questionnaire (CPEQ): characteristics and functional status of patients on entry to a tertiary care pain clinic. PAIN RESEARCH AND MANAGEMENT. 2012 Mar;17(2):75-82. Mar-Apr. Coauthor or Collaborator.   
Case Reports   
1. Furlan JC, Robinson L, Murray B. Stepwise paralysis in a patient with adenocarcinoma of lung. NEUROLOGY; 2016 Mar 22. 5 p. 86(12):e122-7. Principal Author.   
2. Furlan JC, Sundaram ANE. What is your call? Sudden onset anisocoria in a patient with upper respiratory tract infection. CMAJ; 2014 Jan 7. 4 p. 186(1):57-61. Principal Author.   
3. Furlan JC, Valiante T, Dickson B, Kiehl T-R. Paraspinal desmoid-type fibromatosis as a cause of low back pain. SPINE JOURNAL; 2013 Dec 1. 1 p. 13(12):1958-9. Principal Author.   
Book Chapters   
1. Furlan JC. World Perspective of Epidemiology of Cerebrovascular Disease. In: In: The influence of Sleep in the Primary and Secondary Prevention of Cerebrovascular Disease. Coelho FMS; 2014. In Press. Principal Author.   
2. Furlan JC, Krassioukov A, Miller WC, Sakakibara BM. Epidemiology of Traumatic SCI. In: Eng JJ, Teasell RW, Miller WC, Wolfe DL, Townson AF, Hsieh JTC, Connolly SJ, Mehta S, Sakakibara BM, editor(s). Spinal Cord Injury Rehabilitation Evidence. 4.0. Vancouver (Canada); 2012. Principal Author.   
3. Furlan JC, Tator CH. Global Epidemiology of Traumatic Spinal Cord Injury. In: Morganti-Kossman C, Raghupathi R, Maas Andrew, editor(s). Book Traumatic Brain & Spinal Cord Injury: Challenges & developments. Cambridge (United Kingdom): Cambridge University Press; 2012. p. 216-228. Principal Author.   
4. Cadotte DW, Furlan JC, Fehlings MG. Timing of surgery for spinal cord injury. In: Ghogawala Z, Krishnaney AA, Steinmetz MP, Batjer HH, Benzel EC, editor(s). The Evidence for Neurosurgery. Shrewsbury (United Kingdom): tfm Publishing Limited; 2012. p. 471-483. Senior Responsible Author.   
  
Editorials   
1. Furlan JC. Databases and registries on traumatic spinal cord injury in Canada. CANADIAN JOURNAL OF NEUROLOGICAL SCIENCES. 2013 Jul;40(4):454-5. Principal Author.   
Other Publications   
1. Furlan JC. Post-Stroke mortality elevated by high and low blood platelet counts. The Chronicle in Neurology + Psychiatry (by John Evans). Principal Author.   
E. Presentations and Special Lectures   
1. INTERNATIONAL   
Presented Abstracts   
2016 Apr 17 Presenter. Acute care and neurorehabilitation management of the elderly with traumatic cervical spinal cord injury: A cost-utility analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Poster Presentation at Scientific Meeting on Neurology - Neurorehabilitation.   
2016 Apr 16 Presenter. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Massicotte EM, Craven BC. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 16 Presenter. Intravenous Immunoglobulin versus Plasma Exchange in the Management of Patients with Myasthenia Gravis: A Cost-Minimization Analysis. 68th Annual Meeting of the American Academy of Neurology. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Poster Presentation at Scientific Meeting on Neurology - Neuromuscular Disorders.   
2016 Apr 14 Presenter. A cost-utility analysis comparing younger versus elderly regarding acute care and rehabilitation management after acute traumatic cervical spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Fehlings MG, Craven BC. Oral Presentation on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Does age at the time of trauma affect the inflammatory response, glial and axonal survival after traumatic spinal cord injury? 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2016 Apr 14 Presenter. Abnormal ECG parameters in the early phase following acute traumatic spinal cord injury. 2016 Annual Meeting of the American Spinal Injury Association. Philadelphia, Pennsylvania, United States. Presenter(s): Furlan JC, Palmares X, Verocai F, Fehlings MG. Poster Presentation at Scientific Meeting on Spinal Cord Medicine.   
2014 Oct 21 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, Session on Neurotrauma and Critical Care. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2014 Oct 20 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 2014 Annual Meeting of the Congress of Neurological Surgeons, General Scientific Session II. Boston, Massachusetts, United States. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation on Neurology.   
2013 May 30 Presenter. Decompressive Surgery and Radiotherapy in the Palliative Care of Metastatic Spinal Cord Compression: Cost-Utility of a New Treatment Standard. 13th World Congress of the European Association for Palliative Care (EAPC). Prague, Czech Republic. Presenter(s): Klinger CA, Furlan JC, Chan K, Sandoval G., Lam K, Patchell RA, Laporte A, Fehlings MG. May 30th to June 2nd 2013. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 20 Presenter. Electrocardiogram abnormalities within the first 72 hours following acute traumatic spinal cord injury. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Palmares X, Verocai F. Poster Presentation at Scientific Meeting on Neurology Topic.   
2013 Mar 18 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 65th Annual Meeting of the American Academy of Neurology. San Diego, California, United States. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Jul 22 Presenter. Early Versus Lates Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Neurotrauma Symposium. Phoenix, Arizona, United States. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr 26 Presenter. Case Studies: Unusual Diagnostic and Management of Cases in Neuromuscular Disease. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Tarnopolosky M, Dodig D. Oral Presentation on Neurology.   
2012 Apr 26 Presenter. Is Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI) Feasible and Cost-Effective? 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 25 Presenter. Palliative Care of Patients with Metastatic Spinal Cord Cancer: A Cost-Utility Analysis Comparing the Standard of Care with Direct Decompressive Surgical Resection Followed by Radiotherapy. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Chan K, Sandoval G., Lam K, Klinger CA, Patchell RA, Laporte A, Fehlings MG. Oral Presentation on Neurology.   
2012 Apr 24 Presenter. White Blood Cell Count as a Marker of Stroke Severity and Clinical Outcomes after Acute Ischemic Stroke. 64th Annual Meeting of the American Academy of Neurology. New Orleans, Louisiana, United States. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology Topic.   
2012 Apr Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury (SCI): A Process Benchmarking Appraisal. 2012 Annual Meeting of the American Association of Neurological Surgeons. Miami, Florida, United States. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation on Neurology.   
2. NATIONAL   
Invited Lectures and Presentations   
2016 May 27 Invited Speaker. A Review on Cervical Spondylotic Myelopathy. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation (SCI Special Interest Group Session). London, Ontario, Canada. Presenter(s): Furlan JC.   
2014 Oct 3 Invited Speaker. The Science and Art of Measuring Outcomes after Spinal Cord Injury. 6th National Spinal Cord Injury Conference – Bioinformatics Inform SCI Rehabilitation. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2016 May 28 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Oral Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 27 Presenter. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2016 May 26 Presenter. Tardy recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of the Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. Poster Presentation at Scientific Meeting on Physical Medicine and Rehabilitation.   
2013 May 24 Presenter. A Cost-Utility Analysis and Feasibility Study on Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury. 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2013 May 23 Presenter. Is white blood cell count a key determinant of stroke severity and clinical outcomes after acute ischemic stroke? 2013 Annual Meeting of the Canadian Association of Neuroscience. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL. Poster Presentation at Scientific Meeting on Neurology.   
2012 Jun 5 Presenter. A Second Chance to Make a First Impression: A Neuromuscular Challenge. 2012 Annual Meeting of the Neuromuscular Special Interest Group, Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Rotstein D, Katzberg H. Oral Presentation at Scientific Meeting on Neurology.   
2012 May Presenter. Early Surgical Decompression for Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis and Feasibility Study. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
2012 Presenter. A Global Perspective on the Frequency of the Leading Causes of Spinal Cord Injury. 2012 Interdependence. Vancouver, British Columbia, Canada. Presenter(s): Sakakibara BM, Miller WC, Furlan JC, Von Elm E, Krassioukov AV. Poster Presentation at Scientific Meeting on Neurology.   
Presented and Published Abstracts   
2015 Jun 12 Presenter. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Barth D, Barnett C, Bril V. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Barth D, Barnett C, Bril V. Cost-minimization analysis comparing intravenous immunoglobulin (IVIg) with plasma exchange (PLEX) in the management of patients with myasthenia gravis: different perspectives for different payers. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S19. Abstract E.09. Principal Author.   
2015 Jun 12 Presenter. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. The potential influence of abnormal blood platelet count on mortality, impairment and disability after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015 Jun;42(Supplement 1):S15. Abstract E.01. Principal Author.   
2015 Jun 10 Presenter. Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Age as a key determinant of inflammatory response, glial and axonal survival after traumatic spinal cord injury. The Canadian Journal of Neurological Sciences. 2015 Jun 10;42(Supplement 1):S9. Abstract B.01.   
2015 Jun 10 Presenter. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. 50th Congress of the Canadian Neurological Sciences Federation. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fang J, Silver FL. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fang J, Silver FL. Blood hemoglobin concentration as a potential predictor of outcomes after acute ischemic stroke. The Canadian Journal of Neurological Sciences. 2015;42(Supplement 1):S9. Abstract B.02. Coauthor or Collaborator.   
2012 Oct 20 Presenter. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Tsung K, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Tsung K, Fehlings MG. A benchmarking appraisal on the timing of surgical decompression for traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):433. Abstract ID# 22. Principal Author.   
2012 Oct 20 Presenter. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. 5th Natonal Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Popovic MR, Craven BC. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Popovic MR, Craven BC. Lack of generalizability of the randomized clinical trial data on initial management of acute traumatic cervical spinal cord injury to elderly patients in clinical practice. JSCM. 2012 Oct;35(5):433. Abstract ID# 68. Principal Author.   
2012 Oct 19 Presenter. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A cost-utility analysis comparing early versus later surgical decompression of spinal cord in the management of traumatic cervical spinal cord injury. JSCM. 2012 Oct;35(5):454. Abstract ID# 51. Principal Author.   
2012 Jun 8 Presenter. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Vergouwen M, Silver FL.   
  
Publication Details:   
Furlan JC, Vergouwen M, Silver FL. White Blood Cell Count as a Potential Predictor of Disease Severity and Outcomes after Acute Ischemic Stroke. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S30. Abstract L08. Principal Author.   
2012 Jun 7 Presenter. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation, CNSS Chair’s Select Plenary Presentations. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Oral Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Process Benchmarking Appraisal of Surgical Management of Patients with Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3):S10. Abstract B01. Principal Author.   
2012 Jun 7 Presenter. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. 47th Congress of the Canadian Neurological Sciences Federation. Ottawa, Ontario, Canada. Presenter(s): Furlan JC, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
  
Publication Details:   
Furlan JC, Fehlings MG. A Cost-Utility Analysis Comparing Early Versus Late Surgical Decompression of Spinal Cord for Acute Traumatic Cervical Spinal Cord Injury. The Canadian Journal of Neurological Sciences. 2012 Jun;39(3 (Supplement 3)):S50. Abstract P060. Principal Author.   
3. PROVINCIAL / REGIONAL   
4. LOCAL   
Invited Lectures and Presentations   
2015 Mar 5 Invited Speaker. An Under-Recognized Cardiovascular Complication of “Allbuff’s Disease”. Brain Science Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Sep Invited Speaker. What are the two diagnoses? (Case discussion and review on neuromyelitis optica with superimposed autonomic dysreflexia). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Aug Invited Speaker. “Little sparks kindle great FIRES” (Case discussion and review on FIRES). Krembil Neuroscience Round, Toronto Western Hospital, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Apr Invited Speaker. An unusual cause of back pain: What is your call? Slide Club of the Division of Neuropathology, University of Toronto (Case discussion on lumbar fibromatosis). Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. “Where there is smoke, there is fire!” (Case discussion and review on FIRES). Neuroscience Rounds at the Hospital for Sick Children, Division of Neurology. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2013 Mar Invited Speaker. The Superman’s worst headache: An under-recognized medical condition. Neurology Grand Rounds at the Hospital for Sick Children. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Aug 17 Invited Speaker. Spinal Arterial-Venous Fistula: A case and brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jul 6 Invited Speaker. Approach to Acute Myelopathies: A brief review of the topic. Academic Half-Day for residents in Neurology, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 May 10 Invited Speaker. Timing for Anticoagulation after CNS Hemorrhage in Patients with High Risk for Thromboembolic Events. Brain Sciences Rounds, Sunnybrook Health Science Centre. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Mar Invited Speaker. Autonomic dysreflexia: An under-recognized clinical entity. St. Michael’s Hospital Neuroscience Rounds. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Feb Invited Speaker. An under-recognized cause of headache. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
2012 Jan Invited Speaker. Anticoagulation after CNS Hemorrhage in Patients with High Thromboembolic Risk: “A Bloody Decision”. Division of Neurology rounds, St. Michael’s Hospital. Toronto, Ontario, Canada. Presenter(s): Furlan, Julio Cesar.   
Presented Abstracts   
2012 Nov Presenter. The relevance of age on the inflammatory response and axonal survival following traumatic cervical spinal cord injury: Preliminary results of a histopathological and immunohistochemical examination of postmortem human spinal cord tissue. 2012 Faculty Research Day, Division of Neurology, University of Toronto. Toronto, Ontario, Canada. Presenter(s): Furlan JC, Liu Y, Croul S, Dietrich WD, Norenberg MD, Fehlings MG. Poster Presentation at Scientific Meeting on Neurology.   
F. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 Jul - 2015 Jun Co-Supervisor. Engineering student. Karlo Nesovic, Electrical and Computer Engineering, Biomedical Engineering. Development of an innovative diagnostic tool using somatosensory evoked potentials elicited by proprioceptive stimulation, Non-thesis Project. Supervisor(s): Popovic, Milos R. Completed 2018.   
Undergraduate MD   
2008 Jan - 2008 Oct Primary Supervisor. Deepa Kattail. Supervisee Position: Research student. Epidemiology and outcomes of traumatic spinal cord injury, Non-thesis Project. Awards: First Prize in the Wyeth Award poster competition in the 2008 Gallie Day, Department of Surgery, University of Toronto. Collaborator(s): Dr. Michael G. Fehlings. Completed 2008.   
Postgraduate MD   
2016 Nov - 2017 Jan Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. The economics on the care of veterans with spinal cord injury or disease., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2017.   
2016 Sep - 2016 Dec Primary Supervisor. Clinical Fellow. Dr. Sivakumar Gulasingam, Medical Science, Neuroscience. Supervisee Position: Clinical Fellow. Epidemiology of war-related spinal cord injury among combatants., Non-thesis Project. Collaborator(s): Dr. B.C. Craven. Completed 2016.   
2016 Aug - 2016 Nov Primary Supervisor. PGY 1. Dr. Jason Liang. Supervisee Position: PGY 1. Music therapy for pain relief in patients with non-cancer pain, Non-thesis Project. Completed 2016.

***Sivakumar Gulasingam, MBBS, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Sivakumar A. Gulasingam   
Assistant Professor   
  
PROFESSIONAL EXPERIENCE   
Current Experience   
• Assistant Professor, University of Toronto, Department of Medicine, Division of Physical Present   
Medicine and Rehabilitation, Toronto, Ontario, Canada   
• Staff Physiatrist (Physical Medicine & Rehabilitation) 2016 - Present   
Brain & Spinal Cord Rehabilitation Program AND Cardiovascular Prevention & Rehabilitation Program   
Toronto Rehabilitation Institute, University Health Network   
• Physiatrist and Sports Medicine Physician, The Family Medical Centre, Toronto, Ontario, Canada 2016 - Present   
Prior Work Experience   
• Clinical Fellow, Physical Medicine and Rehabilitation, University of Toronto, Ontario, Canada 2016 - 2017   
• Resident Physician, Physical Medicine and Rehabilitation, University of Toronto, Ontario, Canada 2011 - 2016   
• Project Collaborator, Individualized Spinal Cord Injury Discharge Manual, Lyndhurst Centre, Toronto 2010 - 2011   
• Physician Assistant - Men's' Health, Ontario Men’s Health, York Mills, Ontario 2009 - 2011   
• Senior Medical Officer - Rehabilitation Medicine, Rheumatology & Rehabilitation Hospital, Sri Lanka 2001 - 2008   
• Senior Medical Officer - Psychiatry, Teaching Hospital Batticaloa, Sri Lanka 2000 - 2001   
• Medical Officer - Pediatrics and Obstetrics & Gynecology, University of Colombo, Sri Lanka 1999 - 2001   
• Research Assistant, UNICEF, Colombo, Sri Lanka 1997 - 1998   
EDUCATION   
Degrees And Diplomas   
• Clinical Fellowship in Spinal Cord Injury, Sexual Medicine and Cardiac Rehabilitation 2016 - 2017   
University of Toronto, Ontario and University of British Columbia, Vancouver, Canada   
• Fellow of the Royal College of Physicians and Surgeons of Canada (FRCPC) 2016   
The Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada   
• Residency Training in Physical Medicine and Rehabilitation 2011 - 2016   
University of Toronto, Ontario, Canada   
• Post Graduate Diploma in Applied (Medical) Sociology 2006 - 2007   
Department of Sociology, University of Colombo, Sri Lanka   
• National Diploma in Human Resource Management, 2002 - 2003   
Institute of Personal Management, Sri Lanka   
• MBBS, Bachelor of Medicine & Bachelor of Surgery 1992 - 1997   
Faculty of Medicine, University of Colombo, Sri Lanka   
• Diploma in Computer Programming and Design, 1989 - 1992   
Association of Computer Professionals (ACP), London, United Kingdom   
Training And Certification   
• World Para Dance Sport Classifier Training Level II & III, 2017   
International Paralympic Committee, Warsaw, Poland   
• World Para Athletics Classifier Training Level II & III, 2014   
International Paralympic Committee, Sao Paulo, Brazil   
• National Para Athletics Classification Certification for Physical Impairment, 2012   
Athletics Canada, Toronto, Ontario, Canada   
• Para Athletics International Classifier Training, 2007   
International Paralympic Committee (IPC), Singapore   
• Train-the-Trainers on Spinal Cord Injury Rehabilitation, Motivation Trust - UK, Sri Lanka 2007   
• Doping Control Workshop, World Anti Doping Authority, Commonwealth Games Assembly, Sri Lanka 2007   
• Team Physician Development Course, 1998   
Sri Lanka Sports Medicine Association, International Federation of Sports Medicine (FIMS)   
Colombo, Western Province, Sri Lanka   
APPOINTMENTS   
International   
• Categorization Lead - Invictus Games, Multi Sport World Para Games for Wounded Heroes 2017   
Invictus Games 2017, Toronto, Ontario, Canada   
• World (International) Para Dance Classifier, International Paralympic Committee (IPC) Present   
• World (International) Para Athletics Classifier, International Paralympic Committee (IPC) 2014 - Present   
National   
• Chair - International Rehabilitation Special Interest Group (SIG), Present   
Canadian Association of Physical Medicine and Rehabilitation (CAPMR)   
• Member - Education Special Interest Group (SIG), Present   
Canadian Association of Physical Medicine and Rehabilitation (CAPMR)   
• Member - National Working Group on Sexual Health in SCI, Present   
SCI Rehabilitation Care - High Performance Indicator Project, Rick Hansen Institute (RHI), Canada   
• National Head of Classification - Para Dance Sports, WHEEL DANCE Canada, Ontario, Canada 2016 - Present   
• National Trainer & Classifier - Para Athletics, Athletics Canada, Ontario, Canada 2011 - Present   
• Founder President - Sri Lanka Association of Professionals for People with Spinal Cord Injury 2006 - 2008   
(SLAPSCI), Colombo, Sri Lanka   
• National Lead Physician - Para Sports, National Federation of Sports for the Disabled 2004 - 2008   
National Paralympic Committee, Colombo, Sri Lanka   
• Project Chairman - International Day for Persons with Disability, 2002 - 2008   
Rheumatology & Rehabilitation Hospital, Ragama, Western Province, Sri Lanka   
• Lecturer - Sri Lanka School of Prosthetics and Orthotics 2001 - 2008   
Partnership between Ministry of Health Sri Lanka, The Nippon Foundation and the Cambodia Trust   
Rheumatology & Rehabilitation Hospital (RRH),Ragama, Western Province, Sri Lanka   
• Project Lead - Free Medical Health Camps for Plantation Sector and the Underserved, 1998 - 2008   
Lions Club of Battaramulla, Lions District 306 C, Sri Lanka   
• Project Lead - Post Asian Tsunami Emergency Relief - Northern District, Ministry of Health Sri Lanka 2004 - 2005   
Provincial / Local   
• University Lead - PMR Objective Structured Clinical Examination (OSCE), Present   
Department of Medicine, University of Toronto, Ontario, Canada   
• Member - Residency Program Committee, Division of PMR, University of Toronto, Ontario, Canada 2014 - 2015   
• Member - PMR Division Strategic Planning Committee, University of Toronto, Ontario, Canada 2014 - 2015   
• Member - PMR Division Internal Review Committee, University of Toronto, Ontario, Canada 2014 - 2015   
MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS   
• Canadian Association of Physical Medicine and Rehabilitation (CAPM&R)   
• American Congress of Rehabilitation Medicine (ACRM)   
• Canadian Academy of Sports and Exercise Medicine (CASEM)   
• International Paralympic Committee (IPC)   
• Asian Spinal Cord Network (ASCON)   
• National Federation of Sports for the Disabled (National Paralympic Committee), Sri Lanka   
• Sri Lanka Medical Association   
HONORS AND AWARDS   
• Post Graduate Trainee Leadership Award, Post Graduate Medical Education, University of Toronto 2016   
• Resident Research Award, Division of Physical Medicine & Rehabilitation, University of Toronto 2013   
• National Award for the Most Outstanding Young Persons of the Year - Humanitarian and Voluntary Services 2004   
• Governor’s Award for Humanitarian Service, Lions International District 306C, Sri Lanka. 2003   
• Best Poster Presentation - “Changing Paradigms of Spinal Cord Injury in Sri Lanka” 2003   
3rd Asian Spinal Cord Network (ASCON) Conference, Chiang Mai, Thailand   
• Best Secretary of the Year - 1st Runner-up, Lions International District 306C, Sri Lanka. 2001   
RESEARCH AND PUBLICATIONS   
Publications   
• “The Health Economics of the Spinal Cord Injuries & Diseases among veterans of war: A 2016 - 2017   
Systematic Review", (Furlan JC, Gulasingam S, Craven BC),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
The Journal of Spinal Cord Medicine   
http://www.tandfonline.com/doi/abs/10.1080/10790268.2017.1368267Member   
• “Vocational Rehabilitation in Life after Paralysis”, 2006 - 2007   
(Gulasingam S), Post Graduate Diploma Research Thesis   
Department of Sociology, University of Colombo, Sri Lanka   
Peer-Reviewed Publications   
• Spinal Cord Essentials - Individualized Spinal Cord Injury (SCI) Discharge Manual 2010 - 2011   
Alternate Funding Program, Ministry of Health and Long Term Care, Ontario   
Lyndhurst Centre, Toronto Rehabilitation Institute, Ontario, Canada   
http://www.spinalcordessentials.ca/about/   
Non-Peer-Reviewed Publications - Posters   
• “Evidence Informed Protocols for Treatment of Sublesional Osteoporosis after SCI", 2016 - 2017   
(Bondi M, Gulasingam S, Craven BC, Burns T),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
Accepted for presentation at the 7th annual SCI conference, Niagara Falls, Ontario, Canada   
• "Developing a Para Dance Sport National Classifier Base: A Canadian Journey", 2017   
(Gulasingam S, Kulbatski I, Newell E), WHEEL DANCE Canada and University of Toronto,   
VISTA 2017 International Sports Conference, Toronto, Ontario, Canada   
https://www.paralympic.org/sites/default/files/document/170901103331709\_VISTA%2BAbstracts\_Final.pdf   
• “Health Economics of the Spinal Cord Injuries & Diseases among veterans of war: A Systematic Review", 2017   
(Gulasingam S, Furlan JC, Craven BC)   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto   
CAPM&R 2017 Conference, Niagara Falls, Ontario, Canada   
• “Screening for Neuro-endocrine Dysfunction in Traumatic Brain Injury”, 2013 - 2014   
(Guo M, Gulasingam S, Tam A, Mian N, Journeay S, Lo A), Division of PMR, University of Toronto   
University of Toronto Quality Improvement Day 2015, Toronto, Canada   
• “Association Between Time since Stroke and Botulinum Toxin Dosage”, 2011 - 2013   
(Phadke C, Gulasingam S, Davidson C, Ismail F, Boulias C), West Park Health Care Centre, Toronto   
ACRM 90th Annual Conference, Florida, USA   
Submitted Publications   
• “Managing the anticoagulated patient with spasticity: A Delphi-based Canadian Consensus statement", 2017   
(Boulias C, Ismail F, Padhke C, Gulasingam S, et al)   
West Park Health Care Centre, Toronto and Canadian Spasticity Group   
Accepted at ACRM 94th Annual Conference, Atlanta, Georgia, USA.   
• “The Economic Impact of Cervical Spinal Cord Injuries & Diseases on the Health Care of 2017   
War Veterans: A Systematic Review", (Furlan JC, Gulasingam S, Craven BC) ,   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto, Canada   
Submitted to American Spinal Injury Association (ASIA) 2018 Meeting, Rochester, Minnesota, USA.   
• “Epidemiology of War Related Spinal Cord Injury among Combatants: A Systematic Review" 2017   
(Furlan JC, Gulasingam S, Craven BC),   
University of Toronto and Lyndhurst Centre, Toronto Rehabilitation Institute, UHN, Toronto, Canada   
Submitted to American Spinal Injury Association (ASIA) Annual Meeting 2018, Rochester, Minnesota, USA.

***Beverly Craven, BA, MD, MSc, FRCPC***  
Lyndhurst Centre, Toronto Rehabilitation Institute & University of Toronto

**CV:**  
Beverly Catharine Craven   
Associate Professor   
  
1. EDUCATION   
Degrees   
2003 - 2007 MSc, Clinical Epidemiology, HPME, University of Toronto, Toronto, Ontario, Canada, Supervisor(s): GA Hawker   
1994 - 1998 FRCP(C), Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1991 - 1994 MD, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada   
1984 - 1989 BA, Specialized Honours Physical Education, Kinesiology and Health Science, York University, Toronto, Ontario, Canada   
Postgraduate, Research and Specialty Training   
1998 - 1999 Clinical Scholar, Physiatry, Spinal Cord Injury Rehabilitation, Dept of Medicine, University of Toronto, Toronto Rehabilitation Institute, Toronto, Ontario, Canada, Supervisor(s): Dr CF McGillivray (University of Toronto) & Dr JD Adachi (McMaster University)   
1994 - 1998 Resident, Physical Medicine and Rehabilitation, Dept of Medicine, McMaster University, Hamilton, Ontario, Canada, Supervisor(s): Dr. M. Bayley & Dr. D. Harvey   
Qualifications, Certifications and Licenses   
2008 - present BCLS/AED Certification, Toronto, Ontario, Canada   
1991 - present CCD® Certified Clinical Densitometrist, International Society of Clinical Densitometry, United States, License / Membership #: 11-06-99-0-26   
2015 Jul Protecting Human Research Participants Certificate, NIH Office of Extramural Research, United States, License / Membership #: 1794948   
2014 Jul - 2015 Jun Medi Maps Group, Montreal, Quebec, Canada   
1998 Fellow of the Royal College of Physicians and Surgeons of Canada, Physical Medicine & Rehabilitation, Royal College of Physicians and Surgeons of Canada, Ottawa, Ontario, Canada, License / Membership #: 068244   
1996 Licentiate of the Medical Council of Canada (LMCC Part II), Medical Council of Canada, Ontario, Canada, License / Membership #: 79173   
1994 Licentiate of the Medical Council of Canada (LMCC Part I), Medical Council of Canada, Canada   
1989 Advanced Coaching Certificate, York University, Toronto, Ontario, Canada   
1988 Fitness Assessment & Exercise Counseling Certificate, York University, Toronto, Ontario, Canada   
2. EMPLOYMENT   
Current Appointments   
2016 - present Adjunct Associate Professor, Department of Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2016 - present Associate Graduate Faculty Member, Rehabilitation Sciences Institute, University of Toronto, Toronto, Ontario, Canada   
2016 - present Professor, Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
Cross Appointment and SGS Associate Member with the Institute   
2015 Apr - present Senior Scientist, Neural Engineering and Therapeutics Team. Neural Engineering and Therapeutics Team, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Division of Physical Medicine and Rehab, Medicine, University of Toronto, Toronto, Ontario, Canada   
2014 Jul - present Associate Professor, Physical Medicine and Rehabilitation, Medicine, Faculty of, University of Toronto, Toronto, Ontario, Canada   
2014 - present Medical Lead, Spinal Cord Rehabilitation Program, Physical Medicine and Rehabilitation, UHN -Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
The Physician Leader, Spinal Cord Rehabilitation Service will provide medical leadership in the interest of quality care, education, research and advocacy. The Lead Physician will provide advice and guidance to support optimal operational and strategic performance.   
2011 - present Adjunct Assistant Professor, Kinesiology, University of Waterloo, Waterloo, Ontario, Canada   
2011 - present Active Medical Staff, Dept of Physical Medicine & Rehabilitation, University Health Network, Toronto, Ontario, Canada   
2011 - present Physiatrist, Brain & Spinal Cord Rehabilitation Program, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
2010 - present Associate Member, School of Graduate Studies, University of Toronto, Toronto, Ontario, Canada   
Previous Appointments   
HOSPITAL   
2000 - 2012 Manager, Bone Density Lab, Toronto Rehabilitation Institute, Toronto, Ontario, Canada   
RESEARCH   
2007 - 2015 Mar Scientist, Neural Engineering and Therapeutics Team. Toronto Rehabilitation Institute, Spinal Cord Rehabilitation Program, Toronto, Ontario, Canada   
UNIVERSITY - CROSS APPOINTMENT   
2010 - 2014 Jun Assistant Professor, Institute of Health Policy Management and Evaluation, University of Toronto, Toronto, Ontario, Canada   
UNIVERSITY - RANK   
2007 - 2014 Assistant Professor, Division of Physiatry, Medicine, University of Toronto, Toronto, Ontario, Canada   
3. HONOURS AND CAREER AWARDS   
Distinctions and Research Awards   
NATIONAL   
Received   
  
2014 Oct Education Category Award Winner: 2nd Place, Presenter, 6th National SCI Conference, Toronto, Ontario, Canada. (Distinction)   
Title: Moving from the E-scan Atlas to Action: Development of a SCI Rehabilitation Manifesto   
Authors: Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D.   
Description: Certificate of achievement and opportunity to do a podium presentation at the conference.   
2014 Jun Original Research Contest Award Winner: 3rd Place, CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada. (Research Award, Specialty: PM&R)   
Title: Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies?   
Authors: Craven BC, Zeng L, Farahani F, Hitzig SL.   
  
LOCAL   
Received   
  
2014 May Division of Physiatry Achievement Award 2013, Division of Physiatry, Department of Medicine, University of Toronto, Toronto, ON, Canada. (Distinction)   
Description: This award is given to an individual staff member in the Division of Physiatry for exceptional service towards the development and growth of the Division of Physiatry at the University of Toronto. I was the inaugural award recipient.   
  
Nominated   
  
2017 Jun DoM Eaton Scholar Researcher of the Year, University of Toronto-Wightman-Berris Academy, Toronto, Ontario, Canada. (Research Award)   
The Eaton Scholar Researcher of the Year, which recognizes a member of the Department of Medicine who has demonstrated sustained excellence as a scientist and role model over several years (7 years or more with the DoM).   
  
Teaching and Education Awards   
LOCAL   
Received   
  
2016 May Clinician Award and Leader Award, UHN: Toronto Rehabilitation Institute, Toronto, Ontario, Canada. (Postgraduate)   
The award is for Contribution to Student and Professional Education at Toronto Rehab.   
  
Student/Trainee Awards   
INTERNATIONAL   
Received   
  
2013 Nov Poster Competition Award Winner, Fourth Place, PM&R, Faculty Research Supervisor, Awardee Name: Dance, DL. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
2012 May WMS Fellowship Award, Awardee Name: A. Mayo. World Muscle Society, Perth, Australia   
Travel award. Total Amount: 500 EUR   
2011 Dec - 2013 Dec Postdoctoral Fellowship Award, Awardee Name: Masae Miyatani. Craig H. Neilsen Foundation, Encino, California, United States   
Postdoctoral Fellowship Salary Support & Small Operating Fund. Total Amount: 135,000 USD   
  
NATIONAL   
Received   
  
2014 Jun Resident Research Award Winner: 3rd Place, PM&R, Resident Research Supervisor, Awardee Name: Fortin C. CAPM&R 2014 Annual Scientific Meeting, St. John’s, Newfoundland and Labrador, Canada   
Title: Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It?   
Authors: Fortin C, Voth J, Jaglal S, Craven BC.   
2012 Jan - 2014 Jan Canadian Urologic Association Scholarship Fund Award, Awardee Name: Blayne Welk. Canadian Urologic Association, London, Ontario, Canada   
2011 Jul - 2013 Jun Postdoctoral Fellowship Award, Awardee Name: Sander L. Hitzig. Ontario Neurotrauma Foundation (ONF) & Rick Hansen Institute (RHI), Toronto, Ontario, Canada   
Salary Support for Mentee, Capacity Building Award. Total Amount: 130,000 CAD   
  
LOCAL   
Received   
  
2013 Nov Abstract Competition Senior Resident Award Winner, First Place, Faculty Research Supervisor, Awardee Name: Dance, DL. PM&R Resident Research Day 2013, Toronto, Ontario, Canada   
Title: Exploring Daily Blood Pressure Fluctuations among Individuals with Chronic SCI During Activities of Daily Living.   
Authors: Dance DL, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC.   
  
4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES   
Professional Associations   
2016 - present Ad-Hoc Member, Pharmacy and Therapeutics Committee, UHN, Toronto Rehabilitation Institute   
2014 Dec - present Member, Scientific Advisory Committee, Osteoporosis Canada   
2011 - present Member, Advisory Committee, Ontario Spinal Cord Injury Research Network   
2010 - present Member, Academy of Spinal Cord Injury Professionals (ASCIP), 20-0000321   
2010 - present Member, International Spinal Cord Society (ISCOS)   
2007 - present Member, Paralyzed Veterans Of America (PVA)   
2002 - present Member, American Spinal Injury Association (ASIA)   
2002 - present Member, International Society of Clinical Densitometry (ISCD), 131846   
2001 - present Member, American Society of Bone and Mineral Research (ASBMR), 104003   
1999 - present Member, Ontario Medical Association (OMA), 0660837   
1998 - present Member, Canadian Association of Physical Medicine and Rehabilitation (CAPMR), 520797   
1994 - present Associate Member, Association of Academic Physiatrists (AAP), 20392   
1994 - present Member, Canadian Medical Association (CMA), 104675   
1994 - present Member, Canadian Medical Protective Association (CMPA), 987589   
1994 - present Member, College of Physicians and Surgeons of Ontario (CPSO), 068244   
2012 - 2016 Member, American Congress of Rehabilitation Medicine, 11837-1   
  
Administrative Activities   
INTERNATIONAL   
American Congress of Rehabilitation Medicine (ACRM)   
2013 - 2014 Member, Pre-Course Planning Committee, 91st Annual Meeting, October 2014, Toronto, Ontario, Canada.   
  
International Spinal Cord Society (ISCoS)   
2014 Dec 20 International SCI Fracture History Extended Data Set Working Group   
2014 Dec 13 International SCI Endocrine and Metabolic Extended Data Set Working Group   
  
NeuroRecovery Network   
2013 Apr - 2014 May Member, Health Committee, Louisville, Kentucky, United States.   
  
Wings For Life   
2014 Jul 1 - present Member, SCI Clinical Trials Toolbox (SCITT) International Working Group, Faculty Development   
The goal of the clinical trials implementation group: it to convene a group with hands-on experience in SCI trials to produce SCITT (guideline recommendations and a tool box for SCI clinical trials (IST/IIT). Working Group Members include Cathy Craven, Armin Curt, Jane Hsieh, Linda Jones, Suhkvinder Kalsi-Ryan; Steve Kirshblum, and Allan Levi (AL).   
  
NATIONAL   
Allergan Medical Affairs   
2013 Sep 7 Member, Multi-Indication Advisory Board, Toronto, Ontario, Canada.   
  
Canadian Association of Physical Medicine & Rehabilitation (CAPMR)   
2016 Jul 1 - 2017 May 31 Member, 65th Annual Meeting Planning Committee, Faculty of Medicine, Dept of Medicine, Toronto, Ontario, Canada.   
Planning of the May 25, 2017 9:00am to 12:00pm Fat, Muscle, Bone and Exercise.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, St. John’s, Newfoundland and Labrador, Canada.   
2013 - 2014 Member, Scientific Planning Committee, CAPMR 62nd Annual Meeting, Vancouver, British Columbia, Canada.   
2012 Jul - 2016 Jun Chair, Research Committee, Canada.   
As Chair of the Research Committee for CAPMR 61st-64th Annual Meetings, my duties include scientific program development, vetting of abstract submissions, creation of paper, abstract and poster award criteria, facilitating a fair national adjudication process and distribution of awards. In addition, the Research Chair sits on the editorial board of International Journal of Physical Medicine & Rehabilitation, ensures the annual meeting products are suitable and in the correct format for publication in the journal and provides commentary and journal input as appropriate.   
2010 - 2012 Member, Scientific Planning Committee, CAPMR 60th Annual Meeting, Toronto, Ontario, Canada.   
2009 - 2012 Member, Research Committee, Canada.   
  
Osteoporosis Canada   
2016 Sep 16 - 2018 Sep Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
OC SAC Research Committee.   
2014 Dec 1 - 2016 Dec 1 Member, Scientific Advisory Committee, Faculty of Medicine, Dept of Medicine, Ontario, Canada.   
Scientific Advisory Committee.   
  
Rick Hansen Institute   
2016 Nov - present Sub-Committee Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
Decision Support Working Group.   
2015 Aug - present Chair, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
2013 Aug - present Member, CARE Advisory Committee, Vancouver, British Columbia, Canada.   
The purpose of the Care Advisory Committee is to identify gaps in knowledge regarding SCI clinical management that are needed to advance the field and to implement existing evidence into practice. The Advisory Committee will make recommendations and assist in the development of an RHI Care Program that will fill gaps in clinical knowledge and promote best practices to optimize and standardize care delivery for Canadians who are newly injured as well as those living with an existing SCI. The recommendations of the committee will align with the vision and mission of RHI and as outlined in the 2013-2018 Business Plan.   
2008 - present Member, Rick Hansen Spinal Cord Injury Registry (RHSCIR) Scientific and Executive Committee, Canada.   
2015 Dec - 2016 Apr Member, Planning Advisory Committee PRAXIS Meeting, Vancouver, British Columbia, Canada.   
The purpose of the Planing Advisory Committee is to develop a novel conference agenda that advances the field of spinal cord injury and addresses the Valley 1 and Valley 2 gaps in the field.   
2009 - 2012 Site Investigator, Rick Hansen Spinal Cord Injury Registry (RHSCIR), Canada.   
  
Toronto Rehabilitation Institute   
2010 - 2012 Co-Chair, 5th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
  
UHN - Toronto Rehabilitation Institute   
2015 - 2017 Co-Chair, 7th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
2012 - 2014 Co-Chair, 6th National SCI Conference Scientific Planning Committee, Toronto, Ontario, Canada.   
As Co-Chair, I am responsible for development of the scientific program, recruitment of speakers, adjudication of the Champion of Change and Patti Dawson Awards, as well as liaison with the Journal of Spinal Cord Medicine and acting editor of the special issue.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr 24 - 2016 Apr 25 Member, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
2016 Apr 24 - 2016 Apr 25 Co-Chair, SCI-HIGH Project Advisory Group, Vancouver, British Columbia, Canada.   
  
PROVINCIAL / REGIONAL   
Integration of Health Services and Supports (Self-Management, Primary Care, Rehabilitation) in Persons with Spinal Cord Injury (PRISM Project)   
2012 - 2015 Member, Steering Committee, Ontario, Canada.   
Steering Committee.   
  
Ontario Spinal Cord Injury Research Network (OSCIRN)   
2011 - present Member, Advisory Committee, Toronto, Ontario, Canada.   
Scientific Advisory Boards.   
  
LOCAL   
Division of Physical Medicine and Rehabilitation   
2015 Feb 3 Member, CMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Postgraduate MD, Toronto, Ontario, Canada.   
7 hours of applicant reviews   
12 hour interview and selection process.   
2015 Jan 27 Member, IMG Interview Panel, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
6 hours CV review   
5 hours interview and selection process.   
  
Toronto Rehabilitation Institute   
2011 - 2014 May Executive Committee, TRIMSAFPA, Toronto, Ontario, Canada.   
2011 - 2012 Executive Committee, Toronto Rehabilitation Institute Rehab Medicine Associates (TRIRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
  
UHN - Toronto Rehabilitation Institute   
2015 Apr 1 - present Director, Central Recruitment Implementation Toronto Rehabilitation Institute, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
I am responsible for clinical, administrative and financial oversight of implementation of Central Recruitment(CR) and a revitalized Research Volunteer Pool (RVP. The outcomes of this project have clinical and research accountability on our corporate score card. Aim: 100% of Toronto Rehab Inpatients are approached regarding research participation by a patient research liason, the number of trials which fail due to inadequate accrural is reduced, a new revistalized RVP is implemented with migration of existing databases in to the RVP.   
2014 Jul 1 - present Medical Lead, Brain and Spinal Cord Rehabilitation Program, Lyndhurst Centre, Toronto, Ontario, Canada.   
2013 - present Executive Committee, University Health Network Rehab Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend 8 monthly meetings of the Executive Committee and 4 meetings of UHNRMA per year. Activities include: developing an internal accountability framework, and participating in annual internal review of members’ academic productivity, developing and ensuring adherence to projected budget and related practice plan business activities.   
2015 Jan - 2015 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2014 Nov - 2014 Dec Chair, Innovation Fund Internal Review Process, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
2014 Jan - 2014 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Nov - 2015 Jun Executive Committee Member, UHN Rehabilitation Medicine Associates (UHNRMA), Toronto, Ontario, Canada.   
Attend monthly meetings of the Executive Committee and 6 meetings of TRIRMA per year, to develop an internal accountability framework, and participate in annual internal review of members’ academic productivity.   
2013 Jan - 2013 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan - 2012 Jun Member, UHNRMA Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
UHN -Toronto Rehabilitation Institute   
2015 Feb 20 Member, Affiliate Scientist Appointment Committee, Toronto, Ontario, Canada.   
Meeting Preparation and attendance.   
  
UHN: Toronto Rehabilitation Insititute   
2016 Apr Invited Attendee, The Wearable Cameras Stakeholder Committee Meeting, Toronto, Ontario, Canada.   
  
UHN-Toronto Rehabilitation Institute   
2017 Aug 16 - present Ad-Hoc Member, TRI P&T Subcommittee, Toronto, Ontario, Canada.   
2016 Apr 1 - 2018 Mar 31 Director, Central Recruitment and Research Volunteer Pool, Toronto, Ontario, Canada.   
2015 Feb 23 - 2015 Feb 24 Member, Spinal Cord Rehab Program, Value Stream Mapping (VSM), Toronto, Ontario, Canada.   
Meeting attendance.   
2013 - 2014 Member, NET Team Scientist Search Committee, Department of Physical Therapy, Toronto, Ontario, Canada.   
  
University Health Network Rehab Medicine Associates (UHNRMA)   
2014 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2013 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
2012 Jan Member, Annual Performance Review Committee, Toronto, Ontario, Canada.   
4 hours of documentation review   
3 hours committee member orientation and planning   
12 hours of review   
2 hours post visit feedback/edits.   
  
University of Toronto   
2016 Jun - present Member, Division Research Leads Committee, Department of Medicine, Toronto, Ontario, Canada.   
Quarterly Meetings of the Committee. The Committee aims to aid in the implementation of the Department of Medicine Research Strategic Plan.   
2016 - present Chair, PM&R Division Research Committee, Toronto, Ontario, Canada.   
Develop research matrix. Promote research collaboration across the division, revise research day format and develop mechanisms within the department of medicine to communicate research success.   
2015 Sep - present Member, Division of PM&R Executive Committee, Department of Medicine, Toronto, Ontario, Canada.   
This is an Advisory Committee to the Division Chief and assist with the Strategic Plan Implementation.   
2006 - present Member, Gender Issues Committee, Department of Medicine, Toronto, Ontario, Canada.   
Attend quarterly meetings and events.   
2016 Jun 24 Contributor, Division of PM&R Mini Retreat, Toronto, Ontario, Canada.   
Research Committee strategic plan update.   
2015 Feb - 2015 Oct Member, Strategic Planning Oversight Committee, UofT Division of PM&R, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Faculty Development, Toronto, Ontario, Canada.   
Co-Chair of the Research pillar of the strategic planning process.   
2013 Oct - 2013 Dec Member, DDD Physiatry Search Committee, Department of Medicine, Toronto, Ontario, Canada.   
2013 Apr 13 Contributor, External Review, Division of Physiatry, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation, Toronto, Ontario, Canada.   
2012 - 2015 Research Portfolio Lead, Executive Steering Committee, Division of Physiatry, Toronto, Ontario, Canada.   
Participate in monthly meetings of the Executive, 6-8 months per year, participate in planning retreats and educational interventions, and assume responsibility of the research portfolio as outlined in our Division’s strategic plan.   
Quarterly Newsletter Contributions: 30.   
2005 - 2013 Member, Grand Rounds Planning Committee, Division of Physiatry, Toronto, Ontario, Canada.   
  
Peer Review Activities   
EDITORIAL BOARDS   
Member   
2012 Oct - present International Journal of Rehabilitation Medicine   
  
MANUSCRIPT REVIEWS   
Reviewer   
2016 Sep 20 - 2016 Nov 30 BMJ Open-2016-014331, Number of Reviews: 1   
Ad Hoc Journal Reviewer   
2013 - present International Spinal Cord Society, Neurorehabilitation & Neural Repair, Number of Reviews: 1   
2012 Jan - present Osteoporosis International, Number of Reviews: 3   
2010 Nov 18 - present Disability and Rehabilitation, Number of Reviews: 4   
2005 - present American Academy of Physical Medicine and Rehabilitation, Archives of Physical Medicine and Rehabilitation, Number of Reviews: 5   
2005 - present Unites States Department of Veterans Affairs, Journal Of Rehabilitation Research and Development, Number of Reviews: 3   
2004 - present American Society of Spinal Cord Injury Professionals, Journal of Spinal Cord Medicine, Number of Reviews: 23   
2004 - present International Spinal Cord Society, Spinal Cord, Number of Reviews: 6   
2016 Jan 11 Clinical and Investigative Medicine, Number of Reviews: 1   
2015 Dec Spinal Cord, Spinal Cord, Number of Reviews: 1   
Editor, Author, Reviewer   
2013 Mar - 2014 Sep Journal of Spinal Cord Medicine, Number of Reviews: 6   
  
PRESENTATION REVIEWS   
Research Day Adjudicator   
2012 Nov 16 University of Toronto, Division of Physiatry, Resident Research Day, Toronto, ON. Number of Reviews: 14   
  
ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Adjudicator   
2013 Mar - 2013 May Canadian Association of Physical Medicine & Rehabilitation, 61st Annual Scientific Meeting, Montreal, QC. Number of Reviews: 58   
2012 Mar - 2012 Jun Canadian Association of Physical Medicine & Rehabilitation, 60th Annual Scientific Meeting, Toronto, ON. Number of Reviews: 46   
  
ANNUAL REVIEW OF ALL TRI SCIENTISTS   
Reviewer   
2017 Feb 10 UHN-Toronto Rehabilitation Institute, Number of Reviews: 15   
  
CIHR PILOT SCHEME   
Internal Grant Reviewer   
2016 Mar 30 UHN: Toronto Rehabilitation Institute, Formulation of a Reliable Clinical Decision Role for the diagnosis of myofascial pain syndrome, Number of Reviews: 1   
  
EXTERNAL REVIEW   
Member   
2014 Jan - 2015 May Funded by Ontario Neurotrauma Foundation & Rick Hansen Institute, Canadian Best Practice Guidelines for the Treatment of Neuropathic Pain after Spinal Cord Injury   
  
INTERNAL ICORD ENDOWED CHAIRS REVIEW   
Reviewer   
2017 Apr 6 UHN-Toronto Rehabilitation Institute, ICORD - Co Reviewers:   
Rob Brownstone, Suzie Charlifeu, Armin Curt, James Fawcett, Ruediger Rupp, Number of Reviews: 5   
  
INTERNAL SCIENTIFIC REVIEW   
Reviewer   
2016 Oct 31 UHN-Toronto Rehabilitation Institute, Avril Mansfield, Number of Reviews: 1   
  
INTERNAL SCIENTIST REVIEW   
Reviewer   
2016 Aug 17 - 2016 Dec 31 UHN-Toronto Rehabilitation Institute, Number of Reviews: 3   
2016 Jan - 2016 Dec Toronto Rehab Research Institute, Number of Reviews: 2   
  
RESPONSIBLE FOR ABSTRACT REVIEW COMMITTEE AND POSTER AJUDICATOR   
Research Committee Chair   
2014 Mar - 2014 May Canadian Association of Physical Medicine & Rehabilitation, 62nd Annual Scientific Meeting, St.John’s, Newfoundland.   
  
Reviewed 55 abstracts; 12 removed; 3 papers. Adjudication process oversight- 25 hours. Vetting of conference materials- 8 hours. Number of Reviews: 58   
Research Committee Chair   
2015 Jan 15 - 2015 Feb 20 Canadian Association of Physical Medicine & Rehabilitation, 63rd Annual Scientific Meeting, Vancouver BC   
  
Reviewed 90 abstracts; 11 papers of the year submissions, Number of Reviews: 90   
  
WORKSHOP REVIEW COMMITTEE   
Reviewer   
2014 Feb 22 6th National SCI Conference, 6th Annual SCI Conference, Toronto, ON, Number of Reviews: 13   
  
Other Research and Professional Activities   
RESEARCH PROJECT   
2016 May 11 External Stakeholder Advisory Committee. A wearable sensor for monitoring hand function at home.   
Four external stakeholder committee meetings to advise the investigators (Dr. Zariffa) over an 18-month time period.   
  
CHAIR   
2015 May 23 Scientific Commitee. 2015 63rd Annual CAPMR Scientific Award Session. CAPMR, Vancouver, British Columbia, Canada.   
  
CONSENSUS MEETING   
2016 Oct 5 - 2016 Oct 6 Co-Leader. ONF REPAR RIISC Consensus Meeting. Ontario Neurotrauma Foundation-REPAR, Toronto, Ontario, Canada. Supervisor(s): Craven BC, Gagnon D.   
Aim to reduce identifiable and modifiable precursors to fracture, diabetes and heart disease and the related handicap with innovative community-based rehabilitation solutions through collaboration with community partners & patient representatives.   
A 3-year plan containing research goals, team infrastructure, financial accountability was developed.   
  
INTERNATIONAL WORKING GROUP   
2016 Sep - 2018 Apr Member. Spinal Cord Injury Trial Toolkit (SCITT Working Group). Wings For Life. Supervisor(s): Jane Hsieh. Collaborator(s): Jones L, Curt A, Kalsi-Ryan S, Steeves J, Levia A.   
The mission or vision of this group is to develop the following five concept documents:   
1. Clinical Trial Matcher   
2. Website Functionality Map   
3. Clinical Trial Curatorial Criteria List   
4. SCI Clinical Trial Expert Site Qualification Criteria   
5. Patient Self-Report Classificator.   
  
INVITED MEETING   
2016 Nov 23 Attendee. Primary Care Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Joseph Lee and Jamie Milligan. Collaborator(s): 92 meeting attendees including our Deputy and Minister of Health and Health Systems and Health Policy Leaders as well as Spinal Cord Injury Stakeholders.   
1.To direct research, education and innovation in primary and community care for SCI consumers from multiple stakeholders’ perspectives   
To shape the direction and implementation of policy and SCI consumer care   
To further develop a community of practice and learning collaborative to advance primary and community care for SCI consumers.   
2016 Nov 11 Attendee. Canadian Spinal Cord Injury Urohealth Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Blayne Welk. Collaborator(s): 19 meeting attendees at this full day meeting of whom 16 were Urologists and 3 were specialists in Physical Medicine and Rehabilitation.   
1. Review the current Canadian landscape in terms of SCI bladder care and available resources.   
2. Review and discuss standards of care and treatment options for SCI related bladder dysfunction.   
3. Establish guiding principles for CUA neurogenic bladder guidelines (primarily focused on bladder health maintenance and treatment modalities)   
4. Establish potential urohealth indicators for the national SCI-HIGH program (developed through the Rick Hansen Institute)   
5. Determine if there are achievable research goals in the field of spinal cord injury urohealth that should be cooperatively pursued by Canadian researchers.   
2016 Nov 4 Attendee. Spinal Cord Injury Pain Summit. Ontario Neurotrauma Foundation, Toronto, Ontario, Canada.   
2016 Nov 4 Attendee. Neuropathic Pain Summit. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada. Supervisor(s): Eldon Loh.   
2016 Nov 1 Attendee. Research Executive Committee Meeting. UHN-Toronto Rehab, Toronto, Ontario, Canada.   
2015 Oct 24 Attendee. RHI Network Meeting. Rick Hansen Institute, Toronto, Ontario, Canada.   
Network meeting to inform the 2016-2023 strategic plan.   
  
INVITED MEETING INTERNATIONAL   
2015 May 17 Invitee. ISCRR/ONF/RHI SCI and Community Care Meeting. Montreal, Quebec, Canada. Collaborator(s): J. Lee, J. Milligan, A.Burns, P. Athanasopoulos.   
To initiate a discussion on the challenges, research gaps an strategies to improve SCI care in the community. The meeting workshop will identify opportunities for partnership and a series of next steps to advance the primary care clinical and research agenda.   
  
INVITED MODERATOR   
2015 May 15 Moderator. Clinical Trials and Clinical Practice Papers. Montreal, Quebec, Canada.   
Moderator of 1.5 hour session with 6 presentations.   
  
MEMBER   
2016 Sep - 2017 Jan Research Committee Chair. 65th Annual CAPMR Scientific Meeting. CAPMR, Niagara Falls, Ontario, Canada.   
Recruit keynote speaker and establish an agenda for a hall day of conference content related to understanding and managing Endocrine Metabolic Disease Risk.   
  
NATIONAL CONSENSUS MEETING   
2015 Oct 24 - 2015 Oct 25 Co-Chair. Prioritization of Spinal Cord Injury Rehabilitation Domains using the Hanlon Method. Toronto, Ontario, Canada. Collaborator(s): Hitzig SL, Flett H, Farahani F, Alavinia M.   
National Consensus meeting to establish a comprehensive framework of structure, process and outcome indicators intended to improve SCI Rehabilitation standards in Canada by 2020. 22 representatives from relevant stakeholder organizations were invited to participate in ranking and validating rehabilitation domains.   
  
NETWORK MEETING   
2017 May 12 - 2017 May 14 Attendee. Combined Canadian Spinal Cord & Ontario Spinal Cord Injury Research Network Meeting: Regeneration, Rehabilitation & Reintegration. Ontario Neurotrauma Foundation-Rick Hansen Institute, Toronto, Ontario, Canada.   
This meeting aims to drive knowledge translation through strengthening the ties between clinical based science and consumer interest.   
  
POLITICAL ADVOCACY   
2015 Aug 6 Invited Reviewer. Technical Review of draft proposed automobile insurance regulations. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Best S.   
A 3 hour consultation regarding the CAT definitions and the proposal to combine attendant services and medical rehab into one benefit.   
2015 Jun 11 Invited Speaker. Ontario SCI Solutions Alliance Presentation to the Ministry regarding Auto Insurance Reforms. Ministry of Finance, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P.   
An overview of the incidence and prevalence of traumatic spinal cord injury and the associated medical and economic burden were presented.   
Health care utilization and rehab resources were costed in order to highlight that the proposed changes to Bill 91’s universal funding threshold is insufficient to cover the lifetime cost of care for patients with traumatic spinal cord injury and that the proposed changes to Bill 91 are not based on current cost of care and do not support the most vulnerable patients with complex needs. Further the proposed cuts to benefits for those with traumatic spinal cord injury will not reduce the insurance premium burden across the province. A request for the SCI Solutions Alliance to assemble a panel of experts to support the Ministry of Finance was tabled.   
2015 May 20 Author. Ontario SCI Solutions Alliance. Ministry of Health, Toronto, Ontario, Canada. Collaborator(s): Athanasopolous P, Tator C, Burns A, McGillivray CF, Yap A, Adair B, Bassett-Spiers K.   
Provision of Expert content or inclusion in a letter of advocacy regarding the financial services commission of Ontario.   
  
SCI SYMPOSIUM   
2017 Apr 6 - 2017 Apr 7 Invited Attendee. SCI Symposium in Honour of the Retirement of Founding Director, Dr. John Steeves. ICORD, Vancouver, British Columbia, Canada.   
  
STRATEGIC PLANNING SESSION   
2017 Apr 5 Invited Attendee. SCITT-STUDI Joint Strategic Meeting. Wings For Life, Vancouver, British Columbia, Canada.   
  
C. Academic Profile   
1. TEACHING PHILOSOPHY   
My teaching philosophy is predicated upon the assumption that learners are curious, and that learning is a process similar to starting a campfire that in a safe and enthusiastic environment, with appropriate resources, a student’s inquisitive nature will ignite the fire, and that their enthusiasm and perceived safety will stoke the fire and advance learning over time, as the fire burns.   
  
Throughout my interactions with learners I try to convey and engender a learner’s enthusiasm for a topic, while creating a safe environment in which there are no dumb questions, and a learner can take away as much as they are prepared to digest at any one time. When teaching I try to:   
  
a) Provide objectives or articulate an agenda for each presentation or learner interaction   
b) Provide a “real world” perspective on clinical practice, it’s nuance and pitfalls   
c) Emphasize the value of academic scholarship with concrete examples and use of referenced works   
d) Discuss common and serious ethical dilemmas   
e) Provide learners with key take home messages, preferably ones that are actionable   
f) Drive future inquiry beyond the days presentation, by providing an audit trail of additional resources and mechanisms for future or ongoing dialogue on an issue through blogs, learning groups, subsequent discussions etc.   
  
As an instructor in a formal teaching environment, I try to implicitly communicate my expectations of the learners through passion for continuous inquiry, advance preparation of materials, arriving and starting on time, dressing appropriately for the setting, and responding to feedback regarding timing, content and format of my teaching/presentations. I willing provide superior or remedial support for individuals who are engaged and making a concerted effort to integrate knowledge into their learning. I also facilitate advance preparation and rehearsal for presentations in public forums.   
  
The bulk of my teaching efforts are large group continuing education events with an inter professional audience, interactive workshops for an inter professional audience of regulated health care professionals with expertise in rehabilitation or 1:1 teaching of postgraduate MD or Postdoctoral fellows interested in rehabilitation science. One of the greatest joys in my day to day activities is to engage in “academic banter” with graduate students and post doctoral fellows, and to witness the transformation in their thinking processes and communication of their thinking over the course of their training. I derive great personal satisfaction from seeing learners succeed and carry on espousing enthusiasm for advancing the field after they have left my teaching environment.   
  
2. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT   
This CPA dossier was developed to support my promotion to Associate Professor based on Creative Professional Activity with an emphasis on Exemplary Professional Practice. Physiatry is the medical specialty uniquely focused on “function and recovery” following disability. My interests and expertise are in optimizing function, facilitating recovery and reducing morbidity after spinal cord injury (SCI). SCI results in diverse, often devastating motor, sensory and autonomic impairments including: absence or limitations in one’s involuntary ability to breathe, regulate blood pressure and temperature, and voluntary ability to dress, bathe, toilet, eat, or move about one’s home or community. These impairments have lifelong catastrophic implications for the survivor, their long-term health and quality life. My passions for applied physiology, care of the “whole person” with SCI, and belief in the value and effectiveness of interprofessional care have influenced my career directions, and choice of creative professional activities.   
  
I was appointed as Assistant Professor of Medicine in the Division of Physiatry in January of 2007. In Canada, there are fewer than 15 Physiatrists with Clinician Scientist role profiles across our specialty (i.e., Stroke, MS, SCI, Brain Injury, etc). At the University of Toronto, I have had the opportunity to promote exemplary practices and lead the profession through: 1) sustained clinical and scholarly activities at Toronto Rehab, an internationally recognized premier rehabilitation centre, during a time in the field characterized by evolving science and technology; 2) development of new concepts and clinical practices related to sublesional osteoporosis (SLOP) and multimorbidity (MM) following SCI; 3) establishing myself as a nationally and internationally recognized expert in SLOP; and, 4) advancing future health service delivery through clinical and scientific leadership in the conception, design, and implementation of the 1st to 6th National SCI Conference (www.sciconference.ca) and publication of the first Atlas of Canadian SCI Rehabilitation.   
  
As Scientific Co-Chair, I have led the growth and expansion of the National SCI Conference from a small event to a highly sought after large event with international impact. The event now routinely attracts 400 attendees and international keynote speakers. Award winning papers and 100 accepted abstracts are now featured in a special issue of the Journal of Spinal Cord Medicine for which I am the issue editor. .   
  
At the time of appointment in 2007, my primary focus was on describing changes in lower extremity bone mass and bone quality after spinal cord injury. I later developed a clinical definition for SLOP to describe the rapid 30-50% decline in hip and knee region bone density in the first 18-24 months post injury and the resulting lower extremity fracture risk. My subsequent efforts aimed to help the field identify individuals with SCI, low bone mass, and high fracture risk who require therapy. This led to systematic reviews describing, and intervention studies determining, which therapeutic interventions are effective for treatment of those with SLOP fracture risk. Concurrent advances in bone physiology, the muscle-bone unit and Wnt signaling, lead to my conduct as Primary Investigator of intervention studies evaluating the efficacy of medical therapy (RCT - oral Risedronate), and rehabilitation therapies (proof of principle - standing and whole body vibration) for augmenting lower extremity bone mass and reducing risk of lower extremity fragility fracture.   
  
Over time, I have become fascinated by the related fates of bone, muscle and adipose tissue after SCI, and their roles in precipitating secondary health conditions. Secondary health conditions are defined as those conditions the individual develops as a direct consequence of SCI, or occurs at increased frequency among individuals with SCI, when compared to peers in the general population. These tissue changes include: declines in hip and knee region bone mass and bone quality; reductions in muscle cross-sectional area and alterations in fibre type (preponderance of Type IIb fibres); and, increases in abdominal, visceral and intramuscular fat. These events combine to directly or indirectly precipitate distal femur fracture, pressure sores, a proinflamamtory state, metabolic syndrome, and cardiovascular disease. My most recent primary and collaborative research has focused on preservation of tissue, and optimization of residual tissue function through application of medical, neurorecovery and neurorehabilitation strategies. Fractures, heart disease and pressure sores have become my “targets for cure”, as the links between changes in body composition and secondary health condition development have become apparent.   
  
There are 17,000 people living with SCI in Ontario, with 600 new traumatic injuries each year. My knowledge and expertise in applied clinical physiology, and prior training in epidemiology, has led to leadership opportunities, longitudinal cohort studies and publications describing the health and quality of life implications of multimorbidity among Ontarians living and aging with chronic SCI. I have co-led an inter-provincial working group of 28 clinicians and scientists from 11 member institutions in Ontario and Quebec entitled “SCI IMPACT” whose aim is to describe, characterize and ameliorate the health, economic and quality of life impacts of SCI for the individual, his/her family and the health system.   
  
Although survival and life expectancy after SCI have increased, most individuals 10 years post SCI report a mean of 7 concurrent secondary health conditions per year, with one in four hospitalized each year. The impact of SCI on the individual, his/her family, and the health system is greatest in terms of medical complexity, health care utilization and cost during the first two years after injury, and the ten years prior to death. SCI costs the Ontario government over $1.38 billion per year, with the direct mean costs of rehabilitation ranging between $112,000- $120,000 CDN per person (2003-2006). The clinical challenges associated with managing these complex SCI patients with MM in an ambulatory setting has enticed me to describe current health services, publish clinical care paradigms and advocate for the education and training of health care providers, as a means of prescribing change in the field. Orison Swett Marden suggests that “the opposition you have encountered and the courage with which you have maintained the struggle against overwhelming odds” is the best measure of one’s success. Using this framework, I have succeeded in promoting exemplary practice through design and dissemination of the E-scan Atlas (http://www.rickhanseninstitute.org/en/publications/escan)   
The E-Scan atlas content is intended to advance practice, guide program self evaluation, advocate for policy change, and articulate the future research agenda with the aim of transforming practice by 2020. The atlas is the culmination of six years of work, from the time of atlas conception, through acquisition of funding, building team infrastructure, collecting, validating and reporting results of the related scoping review of rehab service delivery nationally and building collaborative partners to synthesize and vet the data. The process necessitated collaboration with 46 co-authors, 86 collaborators and 15 tertiary SCI rehabilitation centres across the nation. Data analysis and atlas production required 15 hours per week of my time for a two year period to realize the final product. To date, 750 print copies and 460 CD versions have been distributed nationally and internationally. In addition, I recently received funding from the Ontario Neurotrauma Foundation to host a national consensus meeting to develop and disseminate a Manifesto containing strategies to reduce the incidence and severity of fractures, pressure sores and heart disease after SCI.   
  
Individuals with the MM of SCI, continue to challenge current thinking and single disease paradigms, which demand unique health system solutions, encompassing physiatric principles, and addressing SCI specific needs. In particular, the field’s ability to train and retain academic Physiatrists capable of facilitating practice change and meeting the service demands dictated by MM is of paramount importance. In the future, I plan to establish a highly sought after SCI clinical fellowship, continue to explore the therapeutic potential of interactions between muscle and bone for prevention and treatment of SLOP leadership of a multicentre intervention trial, and to explore the role of community rehab SWAT teams in reducing SCI related morbidity and hospitalization rates.   
  
Through creative professional activities, I have become a national leader in SCI rehabilitation practice, a recognized expert in SLOP and a strong proponent of academic Physiatry through conduct of ethical and scientifically sound practices, which are reflected in my publications; peer reviewed funding; external peer reviews; student mentorship; knowledge translation activities; administrative leadership; and national/international speaking engagements. Specifics related to these activities are outlined below under the following three themes:   
1. Diagnosis and Medical Rehabilitation of SLOP   
2. Delineating and Mitigating MM Among Individuals with Chronic SCI   
3. Analysis and Transformation of SCI Healthcare, Services and Systems.   
  
D. Research Funding   
1. GRANTS, CONTRACTS AND CLINICAL TRIALS   
PEER-REVIEWED GRANTS   
FUNDED   
2017 Apr - 2019 Mar Co-Investigator. Exploring the Impact of Falls on Life after Spinal Cord Injury. Craig H. Neilsen Foundation. Psychosocial Research Grants. PI: Musselman K. Collaborator(s): Oosman S, Yoshida K, Craven BC. 200,000 USD. [Grants]   
The goal of this project is to understand the causes and consequences of fear of falling and falls in individuals with SCI, as well as increase awareness about the related issues in order to develop an effective fall prevention intervention specific to the SCI population.   
  
2016 Oct Co-Investigator. Exploring the causes and consequences of falls across the continuum of care in Canadians with spinal cord injury. Canadian Institutes of Health Research (CIHR). PI: Musselman K. Collaborator(s): Craven BC, Yoshida K, Bostick G, Hitzig SL, Flett H, Scovil C, Jaglal S, Singh H, Kaiser A, Oosman S, Singh H. [Letter of Intent]   
  
2016 Sep - 2018 Aug Principal Investigator. Rosuvastatin for Reduction of Endocrine Metabolic Disease Risk. Craig H Neilsen Foundation. Neilsen Senior Research Grant. Collaborator(s): Nash M, Dallal K, andersen K, Giangregorio LM, Burns AS, Cheung A. 600,000 USD. [Grants]   
This was a Senior Scientist award for a multi-centre, phase I/II study evaluating the safety and efficacy of Rosuvastatin with CoQ-10 and standard dose calcium and vitamin D for augmenting bone mass and reducing inflammatory stress. This project aims to provide preliminary documentation of statin therapy efficacy and safety to inform the design and implementation of a future large-scale multi-centre, randomized, double-blinded treatment trial.   
  
2016 Jul - 2019 Jun Co-Investigator. Preventing Falls One Step at a Time: Reactive Balance Training for SCI. Ontario Neurotrauma Foundation (ONF). PI: Musselman K. Collaborator(s): Craven BC, Masani K, Mansfield A, Scovil C, Oates A, Lanovaz J. 149,866 CAD. [Letter of Intent]   
Falling is common among individuals with incomplete spinal cord injury (iSCI), with most falls occurring while walking. Falls result in injuries (e.g., broken bones), hospital readmission, and reduced participation in work and recreation. In able-bodied people, falls can be prevented by taking one or more rapid, reactive steps. People with iSCI, however, have difficulty taking the reactive steps needed to prevent a fall. Research in the elderly and people with stroke has shown that repetitive training of reactive steps in a safe environment improves this balance reaction and prevent falls. We will examine the feasibility and effectiveness of reactive step training in people with iSCI. This unconventional training may change current rehabilitation for iSCI, which presently has little emphasis on balance and fall prevention. By improving balance and reducing falls, people with iSCI will experience fewer complications (e.g., injuries), and greater recovery of function and community participation.   
  
2016 Apr - 2017 Apr Co-Investigator. Implementation Considerations for a SCI Caregiver Support Program. Craig H. Neilsen Foundation (The) (USA). Nielsen Pilot Psychosocial Research Grants. PI: Jaglal, Susan. Collaborator(s): Noonan V, Linassi G, Craven BC, Wolfe Dl, Cameron, J. 96,578 USD. [Grants]   
This study seeks to understand the various family caregiver roles and the skills needed to support individuals with spinal cord injury living in the community and to determine the challenges and type of assistance needed by caregivers when providing this care.   
  
2016 Apr - 2017 Mar Co-Investigator. Social Isolation and Loneliness on Health and Well being following post spinal cord injury. Craig H Neilsen Foundation. Neilsen Pilot Project. PI: Hitzig SL. Collaborator(s): Craven BC, Guilcher S, Bassett-Hunter R. 99,574.82 USD. [Grants]   
The purpose of this study is to better understand the role of social disconnectedness and perceived social isolation in influencing health and well-being in community-dwelling persons with spinal cord injury (SCI).   
  
2015 Nov - 2020 Nov Site Investigator. Physiological Flow of Liquids Used in Dysphagia Management. NIH. Motor Function, Speech and Rehabilitation Study Section. 2 RO! DCO11020-04. PI: Steele, Catriona Margaret. Collaborator(s): Craven BC, Burns AS. 2,576,130 USD. [Grants]   
Thickened liquids have become the most common intervention for dysphagia (swallowing impairment), yet we lack a clear understanding of how this intervention works to achieve clinical benefit. This study will provide information to guide clinicians in determining optimal levels of thickening to recommend for patients with dysphagia. This research is highly significant because it will establish a new foundation of understanding with respect to the influence of thickened liquids on swallowing. This is essential for advancing clinical practice and setting the stage for future treatment efficacy research.   
  
2015 Oct - 2016 Sep Principal Investigator. AusCan PHD Student. Ontario Neurotrauma Foundation (ONF). Mentor-Trainee Grant Agreement. 2015-RHI-ASPHD-1004. Collaborator(s): Gabison S. 23,500 CAD. [Grants]   
This is a mentor-mentee training grant.   
  
2015 Mar - 2018 Feb Co-Principal Investigator. Spinal Cord Injury (SCI) Care Indicators in Rehabilitation Project (SCI-HIGH). Rick Hansen Institute (RHI). G2015-33. PI: Craven BC & Bayley M. Collaborator(s): Flett H, Hitzig SL, Zee J. 275,000 CAD. [Grants]   
The purpose of this project is to develop rigorous methods to select, implement and evaluate care indicators. Toronto Rehabilitation Institute (TRI) scientists and clinicians will audit and develop a core set of care indicators in consultation with Canadian SCI rehabilitation experts/stakeholders and pilot these indicators for one year. The goal of this project is to set benchmarks and compare quality, safety, and efficiency of care across centres.   
  
2015 Mar - 2017 Mar Co-Investigator. Development of a Patient Reported Outcome for Bowel Dysfunction following Spinal Cord Injury. Rick Hansen Institute. Clinical Outcomes Measures Funding Competition. RHI #G2015-28. PI: Burns AS. Collaborator(s): Delparte JJ, Hitzig SL, Craven BC. 75,000 CAD. [Grants]   
Individuals with SCI and neurogenic bowel dysfunction (NBD) rate recovery of bowel function above walking as a priority for cure. The ramifications of NBD include impaired gastrointestinal motility, loss of continence, prolonged time to complete planned bowel evacuation, and a related loss of dignity. Current outcome measures fail to capture the full impact of the condition on affected individuals (e.g., employment recreation, inter-personal relationships, etc.). To address this need, a patient reported outcome (PRO) measure will be developed. The proposed PRO measure builds upon our prior qualitative studies which identified issues and challenges of living with NBD. The developed PRO measure will facilitate the future evaluation of clinical interventions intended to reduce the impact of NBD on individuals living with SCI.   
  
2015 Mar - 2015 Apr Co-Principal Investigator. Spinal Cord lnjury (SCl) Care lndicators in Rehabilitation Project. Rick Hansen Institute. Grant #2014-13. PI: Craven BC. Collaborator(s): Bayley M, Parsons D. 5,000 CAD. [Grants]   
Funding granted to facilitate production of a larger-scale proposal entitled SCI-HIGH. The project aims to align RHSCIR data elements, E-Scan data and SCI Accreditation Standards.   
  
2015 Jan - 2016 Mar Principal Investigator. Sustaining the feasibility and exploring the scalability of central recruitment strategies for patients with subacute and chronic spinal cord injuries. Ontario Neurotrauma Foundation (ONF)/Toronto Rehab Foundation. Capacity-Building Award in Spinal Cord Research. Collaborator(s): Brisbois L, Verrier MC. 37,660 CAD. [Grants]   
This project aims to explore the scalability of our inpatient central recruitment pilot study to include all of the peer review funded research at the Lyndhurst Centre.   
  
2014 Apr - 2017 Apr Co-Investigator. Bone fragility in boys with Duchenne muscular dystrophy. Physicians’ Services Incorporated (PSI) Foundation. PI: Ward, Leanne. Collaborator(s): Jaremko J, McAdam L, McMillan H, Craven BC, Ma J, Campbell P, Rudnicki M, Perkins TJ, Moher D, Rauch F, Shenouda N, Matzinger MA, Siminoski K. 170,000 CAD. [Grants]   
This prospective observational study aims to identify the incidence, prevalence and risk factors associated with spine and long bone fractures in children and young adults with Duchenne Muscular Dystrophy (DMD).   
  
2014 Jan - 2017 Dec Site Investigator. AusCAN Risk Assessment for Sitting Acquired Pressure Ulcers. Ontario Neurotrauma Foundation (ONF). Directed Funding Initiative: VNI-ONF-Western Australia Colla. 634388. PI: Swaine J, Hayes K. Collaborator(s): Craven BC, Stacey M. 258,478.43 CAD. [Grants]   
Part A is a prospective cohort study that will identify risk factors associated with the development of a sitting acquired pressure ulcer (SAPU) or suspected deep tissue injury with acute and chronic SCI. Part B will identify and monitor individuals who develop a SAPU to measure health related quality of life impact and to quantify treatment costs. Subjects will be recruited from 10 sites – five state SCI units in Australia and five SCI rehab hospitals in Canada. We intend to recruit 480 subjects, 240 with acute SCI and 240 with chronic SCI (>10 years post injury). The budget shown is the local site budget.   
  
2013 Sep - 2013 Dec Principal Investigator. SCI Rehabilitation E-Scan: Moving from Blueprint to Action. Ontario Neurotrauma Foundation (ONF). Collaborator(s): Balioussis C, Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 55,000 CAD. [Grants]   
The purpose of the grant was to fund an initiative to ensure that the recommendations derived from the E-Scan Atlas were translated into actions effecting necessary change in SCI rehabilitation research, practice, and policy. The course of action decided upon by the E-Scan Investigative Team was to: (a) hold a consensus meeting with national and international experts. The aim of the meeting was to extend the dialogue regarding rehabilitation priorities in Canada that began with the E-Scan Atlas, and (b) create a SCI Rehabilitation “Manifesto” prescribing specific actions to bring about change in research, practice, and policy related to SCI rehabilitation.   
  
2013 Jan - 2014 Jul Research Project Supervisor. Exploring the Associations between Daily Blood Pressure Fluctuations and Cardiovascular Risk among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Physicians’ Services Incorporated (PSI) Foundation. PSI Resident Research Grant. R12-45. PI: Dance, Derry. Collaborator(s): Ditor D, Hassouna M, Craven BC. 20,000 CAD. [Grants]   
This pilot study will document the daily fluctuations in blood pressure during a Spinal Cord Injury (SCI) patient’s daily self-care activities using 24 hr mobile blood pressure monitors. In addition, we will measure aortic arterial stiffness, a correlate of cardiovascular disease, via ultrasound. The data obtained will be used to explore the associations between transient increases in blood pressure (how much, how often, and for how long) with arterial stiffness. We hypothesize that frequent and large (≥30mmHG) increases in systolic blood pressure) due to autonomic dysfunction after SCI contribute to the high rates of cardiovascular related morbidity and mortality after SCI. Future interventions to reduce how often and how much blood pressure fluctuates over time may reduce the frequency of heart attack and stroke among patients living with chronic SCI.   
  
2012 Sep - 2016 Dec Site Investigator for Project 1. Improving Cardiovascular Health for Canadians with Spinal Cord Injury: Effects of Exercise and Targeted Education (CHOICES). CIHR. PI: Krassioukov, Andrei. Collaborator(s): Bryan S, Craven BC, Ditor D, Eng J, Hicks A, Laher I, Lam T, MacDonald M, Martin Ginis K, Ramer M, Verrier M, Warburton D. 16,141.98 CAD. [Grants]   
This is a multi-centre, randomized, prospective clinical trial (www.clinicaltrials.gov, NCT01718977) involving three sites- Vancouver, Toronto, and Hamilton evaluating the efficacy of body weight supported treadmill training vs. arm ergometry for reducing cardiovascular risk. I am the lead investigator for the Toronto site for CHOICES and a member of the study’s steering committee. The local site budget for project I of this study is $305,373.37 CAD.   
  
2012 Aug - 2013 Feb Principal Investigator. E-Scan Finalization. Ontario Neurotrauma Foundation (ONF). 2012-RHI-E-SCAN-954. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Noonan V, Cherban E. 25,482.81 CAD. [Grants]   
The purpose of this grant was to complete the knowledge translation activities related to dissemination of the E-Scan Atlas and development of a knowledge translation plan.   
  
2012 Jan - 2016 Dec Co-Investigator. NRN Development Grant. Ontario Neurotrauma Foundation (ONF). ONF # 974. PI: Verrier MC. Collaborator(s): Craven BC, Flett H. 740,000 CAD. [Grants]   
Description: The NRN is a network of spinal cord injury (SCI) rehabilitation hospitals and tertiary providers in North America that support the implementation of specialized rehabilitation centres which provide standardized activity-based therapy interventions designed from scientific and clinical evidence. An intensive Locomotor Training (LT) program utilizing Body Weight Support Treadmill Training (BWSTT) and over ground therapy is provided to suitable candidates. The purpose of this study is to evaluate the feasibility of the NRN program at Toronto Rehabilitation Institute’s Lyndhurst Centre in an outpatient setting. Individuals with sub-acute incomplete SCI (AIS C and D) will be recruited from the inpatient pool at Lyndhurst Centre. This intervention aims to facilitate and augment the recovery of mobility, posture, standing, and walking, and ensure improvements in health and quality of life among individuals with SCI. Our site is the first NRN site outside of the United States.   
  
2012 - 2013 Principal Investigator. Increasing the Efficiency and Diagnostic Yield of Lower Extremity Bone Density Assessment Among Patients with Neurological Impairment: A Comparison of New and Existing Technology. Academic Health Sciences Centre (AHSC) Toronto Rehab. Alternative Funding Plan (AFP) Innovation Fund. Collaborator(s): Cheung A, Burns A, Mittmann N, Giangregorio L, Jaglal S. 56,200.1 CAD. [Grants]   
Lower extremity fractures among Ontarians with neurologic impairments such as spinal cord injury (SCI) and osteoporosis are common; resulting in delayed fracture healing, blood clots, pressure sores, and additional attendant care. Dual energy x-ray absorptiometry (DXA) is the current standard for detection of osteoporosis and lower extremity fracture risk stratification. We propose that tibia bone density assessment with a newer technology, peripheral quantitative computed tomography (pQCT), will provide better fracture prediction than DXA, while reducing patient burden and the staff resources required for scan acquisition. The efficiency and diagnostic yield of substituting DXA assessments of hip and knee region areal BMD with pQCT-based measurements of tibia volumetric BMD and bone geometry will be evaluated.   
  
2011 Sep - 2012 Co-Investigator. Management of Autonomic Dysfunction in Persons with Spinal Cord Injury. CIHR. Meetings, Planning & Dissemination: Knowledge Translation. PI: Krassioukov, Andrei. Collaborator(s): Craven BC, Ethans K, Wong S. 54,600 CAD. [Grants]   
  
2011 Jul - 2015 Sep Co-Principal Investigator. The SCI IMPACT Research Team. Ontario Neurotrauma Foundation (ONF). ONF- REPAR Partnership. 2011-ONF-REPAR2- 885. PI: Craven BC, Maltais DB. Collaborator(s): Burns A, Courtois F, Noreau L, Ditor D, Hitzig SL, Mittmann N, St-Germain D, Coté I. 120,000 CAD. [Grants]   
The terms of reference of the grant mandated identification of co-principal investigators (one per province) were appointed. The SCI-IMPACT team is the product of an Ontario Neurotrauma Foundation –Réseau Provincial de Recherche en Adaption-Réadaption (ONF-REPAR) funding initiative to promote inter-provincial collaboration. The goal of this partnership was to build capacity and a culture of research collaboration between SCI rehabilitation researchers in Ontario and Québec. The overall objective of the SCI-IMPACT team is to capture and address (prevent/treat) the health, psychosocial, and economic impact of secondary health complications of spinal cord injury (SCI) for individuals with SCI, their families, providers, and the health care system. This collaboration involves 28 clinicians and researchers across the two provinces. Funding to bring the group together has resulted in a broad inter-professional network of stakeholders keen to pursue collaborations based on a common focus.   
  
2011 Jul - 2013 Jun Principal Investigator. Assessing the Feasibility and Scalability of Central Recruitment Strategies for Patients with Subacute and Chronic SCI. Ontario Neurotrauma Foundation (ONF). Mentor Mentoree Grant Agreement. ONF 2011-SCI-Mentor-884. Collaborator(s): Verrier MC. 106,575 CAD. [Grants]   
Insufficient or delayed recruitment is a common barrier to clinical study implementation. Screening to recruitment ratios, for subacute spinal cord injury (SCI) patients are low. This initiative aims to streamline recruitment and consent processes for subacute SCI patients, thereby reducing patient burden and maximizing research participation. This is a demonstration project designed to assess feasibility and scalability of the central recruitment process at the Toronto Rehab’s Lyndhurst Centre, with the future aim of scaling the process for the province should it prove feasible.   
  
2011 Apr - 2012 Jan Principal Investigator. E-Scan: Data Analysis and SCI Rehab Atlas Creation. Rick Hansen Institute. Collaborator(s): Verrier MC, Hsieh JTC, Wolfe DL, Raschid A, Noonan V, Cherban E. 45,000 CAD. [Grants]   
The goal of these project is to examine the landscape of spinal cord injury rehabilitation across Canada and describes the current state of practice and map the actions required to implement changes to standardize and transform practice by 2020.   
  
2010 Jun - 2012 Mar Co-Investigator. Burden of Bowel Dysfunction in Individuals with Spinal Cord Injury: A Preliminary Study of Resources, Costs and Quality of Life. Ontario Neurotrauma Foundation (ONF). 2009-SCI-BURDEN-807. PI: Mittmann N. Collaborator(s): Chan B, Craven BC. 206,624 CAD. [Grants]   
  
2010 May - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration and Passive Standing for Treatment of Lower Extremity Osteoporosis, Muscle Atrophy & Adiposity Among Men with Incomplete Spinal Cord Injury: Efficacy, Safety & Feasibility Assessments for a Phase III Clinical Trial. Ontario Neurotrauma Foundation (ONF). 2010-SCI-WAVE3-816. Collaborator(s): Bryant D, Giangregorio LM, Hitzig SL, Masani K, Miyatani M, Popovic MR, Sayenko D, You L. 241,408 CAD. [Grants]   
Whole body vibration (WBV) has been purported in the scientific literature to have a positive impact on bone mass, muscle strength and endurance, and body composition among able-bodied persons including postmenopausal women, elite athletes, and bariatric clients. This pilot study seeks to confirm the therapeutic potential of WBV on similar bone, body composition, and muscle parameters among men with paraplegia (SCI).   
  
2010 Mar - 2013 Oct Principal Investigator. Intermittent Whole Body Vibration (WBV) and Passive Standing for Treatment of Sublesional Osteoporosis after Spinal Cord Injury Pilot Phase II: Safety & Efficacy Assessment. Rick Hansen Institute. Spinal Cord Injury Solutions Network. SCISN Ref # 2010-94S. 30,620 CAD. [Grants]   
  
2010 Feb - 2012 Mar Co-Investigator. Understanding the Factors that Shape the Neurogenic Bowel Experience Following Spinal Cord Injury: Identifying Important Themes from the Perspective of Stakeholders. Ontario Neurotrauma Foundation (ONF). ONF-2009-SCI-NEURBOW. PI: Burns AS, St-Germain D. Collaborator(s): Craven BC, Wolfe D, Hitzig SL, Connolly M. 235,989 CAD. [Grants]   
Grant #: ONF-2009-SCI-NEURBOW-802.   
  
2010 Jan - 2012 Dec Co-Investigator. Understanding the Links Between Postural Control and Mobility Activities. Craig H. Neilsen Foundation. 164422. PI: Nadeau S and Verrier MC. Collaborator(s): Craven BC. 249,003 CAD. [Grants]   
To map the recovery profile of posture in a heterogeneous sample of patients with subacute spinal cord injury in order to inform the development of future customized interventions to augment trunk recovery.   
  
2009 Aug - 2012 Jan Co-Investigator. Neuroprosthesis for Sitting for Individuals with Spinal Cord Injury. CIHR. MOP#97952 RNet 84680. PI: Popovic MR. Collaborator(s): Craven BC, Verrier M, Masani K. 156,382 CAD. [Grants]   
  
2008 - 2015 Mar Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. CIHR Operating Grant. CIHR-177-254. PI: Craven BC & Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, McCartney N, Thabane L, Popovic M. 85,477 CAD. [Grants]   
Individuals with spinal cord injury (SCI) experience dramatic losses of bone and muscle following the injury, predisposing them to an increased risk of fractures. Chronic changes in bone mineral density (BMD) in the SCI population are not well established. Furthermore, a substantial proportion of the osteoporosis research in SCI has incorporated small sample sizes, has excluded females or has been conducted exclusively in persons with motor complete lesions. Identifying whether bone quality continues to deteriorate, and predictors of poor bone quality may provide insight on who to target for intervention.   
The purpose of this study is to establish a pilot cohort of individuals with chronic SCI, including both genders and diverse levels of impairment. The cohort will also create the potential for future prospective longitudinal studies evaluating predictors of fracture in the SCI population, so that guidelines for identifying those at high risk of fracture can be developed.   
  
NON-PEER-REVIEWED GRANTS   
FUNDED   
2015 Oct - 2016 Sep Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network Grant. Rick Hansen Institute (RHI). SCI Solutions Network. Collaborator(s): Flett H, Musselman K, Furlan JC, Bayley M. 120,000 CAD. [Grants]   
These funds were awarded to maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute to maintain a registry site.   
  
2015 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Musselman K, Burns A, Flett H, Furlan JC. 60,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2014 Apr - 2015 Oct Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. 2012-05. Collaborator(s): Verrier M, Burns A, Flett H. 180,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 Jun - 2014 Mar Principal Investigator. Rick Hansen Spinal Cord Injury Registry (RHSCIR), Spinal Cord Injury Solutions Network (SCISN) GRANT. Rick Hansen Institute. SCI Solutions Network. Collaborator(s): Verrier M, Burns A, Flett H. 240,000 CAD. [Grants]   
Site Investigator, Toronto Rehab Institute. These funds were awarded to set up and maintain a local site capable of contributing data to the national SCI registry funded by the Rick Hansen Institute/Health Canada. http://rickhansenregistry.org/.   
  
2011 - 2015 Dec Co-Principal Investigator. Bone Quality in Individuals with Chronic Spinal Cord Injury. Rick Hansen Institute. RHI Grant # 2012-03. PI: Craven BC, Giangregorio LM. Collaborator(s): Adachi JD, Papaioannou A, , McCartney N, Thabane L, Popovic M. 30,000 CAD. [Grants]   
This grant was awarded to offset the travel expenses for subjects with SCI participating in grant # CIHR-177-254. These funds allowed subjects to travel >75km from their home (outside of the GTA) to our site (Toronto Rehab Institute’s Lyndhurst Centre), thereby eliminating a funding barrier to recruitment.   
  
E. Publications   
1. MOST SIGNIFICANT PUBLICATIONS   
1. Craven BC, Hitzig SL, Mittmann N. Impact of impairment and secondary health conditions on health preference among Canadians with chronic spinal cord injury. J Spinal Cord Med. 2012 Oct 1;35(5):361-370. doi: 10.1179/2045772312Y.0000000046. Impact Factor 1.536. Principal Author.   
  
This paper highlights that having a spinal cord injury and related secondary health complications/multiple morbidity negatively impacts health utility scores. The mean health utility scores for our cohort of Ontarians with chronic spinal cord injury were 0.27, which is comparable or lower than those reported in other vulnerable patient populations in Ontario including Stroke, Multiple Sclerosis, Parkinson’s Disease and Alzheimer’s Disease. This data clearly indicates how secondary health complications of moderate intensity have profound adverse implications for health preference. This data will be used to determine the economic impact of specific health complications including pain and fractures.   
2. Alizadeh-Meghrazi M, Masani K, Popovic MR, Craven BC. Whole-Body Vibration during Passive Standing in Individuals with Spinal Cord Injury: Effects of Plate Choice, Frequency, Amplitude and Subject’s Posture on Vibration Propagation. PM&R. 2012 Aug 14;4(12):963-75. Epub 2012 Oct 24. doi: 10.1016/j.pmrj.2012.08.012. Impact Factor 1.372 (Trainee publication, M.A.Sc). Senior Responsible Author.   
  
Prior to evaluating the therapeutic efficacy of passive standing and whole body vibration among individuals with SCI, it was necessary to demonstrate that our goal of applying sufficient vibration to allow propagation to the hip and knee region, without adverse effects of vibration at the trunk and head was safe and biomechanically feasible. The findings in this paper are a key cornerstone of our whole body vibration program of research. In future, we plan to conduct a multicentre trial evaluating the efficacy of this therapy for augmenting bone mass and muscle, and reducing adiposity among individuals with motor complete paraplegia/ tetraplegia.   
3. Alizadeh-Meghrazi M, Totosy de Zepetnek J, Miyatani M, Giangregorio L, Masani K, You L, Popovic M, Craven BC. Whole Body Vibration and Passive Standing for Treatment of Sublesional Osteoporosis After Spinal Cord Injury: Device Optimization & Assessment. 2012 May 15 (Trainee publication, M.A.Sc). Coauthor or Collaborator.   
2. PEER-REVIEWED PUBLICATIONS   
Journal Articles   
1. Furlan JC, Gulasingam S, Craven BC. The Health Economics of the spinal cord injury or disease among veterans of war: A systematic review. The Journal of Spinal Cord Medicine. 2017 Aug 14. In Press (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
2. Jaglal SB, Voth J, Guilcher SJT, Ho C, Noonan VK, McKenzie N, Cronin S, Thorogood NP, Craven BC. Creation of an algorithm to identify non-traumatic spinal cord disorder patients in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jul 16. In Press (Trainee publication). Coauthor or Collaborator.   
3. Totosy de Zepetnek JO, Miyatani M, Szeto M, Giangregorio L, Craven BC. The effects of whole body vibration on pulse wave velocity in men with chronic spinal cord injury. Spinal Cord. 2017 Jun 30. In Press (Trainee publication, MSc Candidate). Coauthor or Collaborator.   
4. Gibbs JC, Gagnon DH, Bergquist AJ, Arel J, Cervinka T, El-Kotob R, Maltais DB, Wolfe D, Craven BC. Rehabilitation Interventions to Modify Endocrine-Metabolic Disease Risk in Individuals with chronic Spinal Cord Injury living in the Community (RHSC): A systematic review and scoping perspective. Journal of Spinal Cord Medicine. 2017 Jun 30. Senior Responsible Author.   
5. Guilcher SJT, Voth J, Ho C, Noonan VK, McKenzie N, Thorogood NP, Craven BC, Cronin S, Jaglal S. Characteristics of non-traumatic spinal cord dysfunction (NTSCD) in Canada using administrative health data. Topics in Spinal Cord Injury Rehabilitation. 2017 Jun 29. In Press. Coauthor or Collaborator.   
6. Cervinka T, Lynch CL, Giangregorio LM, Adachi JD, Papaioannou A, Thabane L, Craven BC. Agreement between fragility fracture risk assessment algorithms as applied to adults with chronic spinal cord injury. Spinal Cord. 2017 Jun 13;2017:1-9. Senior Responsible Author.   
7. Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. Perspective of Individuals with sub-acute spinal cord injury after personalized adapted locomotor training. Disability and Rehabilitation. 2016 Dec 24. In Press. Coauthor or Collaborator.   
8. Miyatani M, Alavinia M, Szeto M, Moore C, Oh P, Craven BC. Association between Cardiovascular Risk Factors and Arterial Stiffness in People with Chronic Spinal Cord Injury: A Cross-Sectional Study. European Journal of Preventive Cardiology. 2016 Dec 13. In Press (Trainee publication, Post-Doctoral Fellow). Senior Responsible Author.   
9. Gibbs JC, Giangregorio LM, Adachi R, Craven BC, Kowong A, Brown Z. Measuring marrow density and area using peripheral quantitative computed tomography at the tibia: precision in young and older adults in individuals with spinal cord injury. Journal of Clinical Densitometry. 2016 Dec 1. In Press. Coauthor or Collaborator.   
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11. El-Kotob R, Craven BC, Mathur S, Ditor DS, Oh P, Verrier MC. Assessing Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Chronic Traumatic Spinal Cord Injury: A Cross-Sectional Study. Topics in SCI Rehabil. 2016 Oct 21. In Press (Trainee publication, MSc). Coauthor or Collaborator.   
12. Hoskin J, Craven BC, Miyatani M. Quality reporting of carotid intima-media thickness methodology; Current state of the science in the field of spinal cord injury”. Journal of Spinal Cord Medicine. 2016 Sep 13. Coauthor or Collaborator.   
13. Giangregorio LM, Gibbs JC, Craven BC. Measuring muscle and bone in individuals with neurologic impairment; lessons learned about participant selection and pQCT scan acquisition and analysis. Osteoporosis International. 2016 Aug;27(8):2433-2446. Coauthor or Collaborator.   
14. Best K, Ethans K, Craven BC, Noreau L, Hitzig SL. Identifying and classifying quality of life tools for neurogenic bladder function after spinal cord injury: A systematic review. JSCM. 2016 Jul 25. JSCM-D-16-00058R2 (Trainee publication). Coauthor or Collaborator.   
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18. Furlan JC, Craven BC, Massicotte EM, Fehlings MG. Early versus late surgical decompression of spinal cord after traumatic cervical spinal cord injury: A cost-utility analysis. World Neurosurg. 2016 Apr;2016Apr(88):166-74. doi:10.1016/j.wneu.2015.12.0272. Impact Factor 2.88 (Trainee publication, Clinical Fellow). Coauthor or Collaborator.   
19. Chopra AS, Miyatani M, Craven BC. Cardiovascular disease risk in individuals with chronic spinal cord injury: Prevalence of untreated risk factors and poor adherence to treatment guidelines. JSCM. 2016 Mar 4:1-8. Senior Responsible Author.   
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23. Guy S, Swati M, Casalino A, Harvey D, Lau B, Middleton JW, O’Connell C, Townson A, Truchon C, Wolfe D, Bradbury CLB, Bryce TN, Casalino A, Cote I, Craven BC, Finnerup NB, Hitzig SL, Kras-Dupuis A, Moulin DE, Orenczuk S, Parrent AG, Potter P, Siddall P, Short C, Teasell R, Widerstrom-Noga E, Loh E. CanPain SCI Clinical Practice Guideline for Rehabilitation Management of Neuropathic Pain after Spinal Cord: Recommendations for Model Systems of Care. Spinal Cord. 2016 Mar;2016 Aug(54 Suppl 1):S24-7. Coauthor or Collaborator.   
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27. Furlan JC, Craven BC, Fehlings MG. Surgical Management of the Elderly With Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. Neurosurgery. 2016;79(3):418-425. Available from: doi: 10.1227/NEU.0000000000001314. Coauthor or Collaborator.   
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Presented and Published Abstract   
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Workshop Abstract   
1. Craven BC, Pelletier C, Miyatani M, Moore C, Lynch C, Szeto M. Novel Non-Invasive Methods For The Clinical Assessment Of Body Composition And Associated Endocrine-Metabolic Disease Risk After Chronic SCI. 2015 May 14:30. Accepted by the 4th Int’l Spinal Cord Society and American Spinal Cord Injury Association’s Joint Scientific Meeting, Montreal, QC. May 14-16, 2015.   
This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic events (mortality, fracture,Type II diabetes, heart disease). Total 1.5 hours. Principal Author.   
Other Publications   
1. Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray CF, Noreau L. Identifying Quality of Life Outcome Tools for Measuring the impact of pressure ulcers in persons with spinal cord injury. (Trainee publication, Post-Doctoral Fellow). Poster.   
2. Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Dwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M. Addressing privacy requirements for the development of a national health registry in Canada. Coauthor or Collaborator.   
3. SUBMITTED PUBLICATIONS   
Journal Articles   
1. Jaglal SB, Guilcher SJT, Ho C, Noonan VK, Craven BC, Christie S, Welk B, Wai E, Tsai E, Screevasan V, Wilson J, Fehlings M, Kaleemuddin J. Identifying Non-Traumatic Spinal Cord Injury (NTSCI) from Administrative Health Data in Ontario: Advancing the NTSCI Algorithm. Topics in Spinal Cord Injury Rehabilitation. 2017 Aug (Trainee publication). Coauthor or Collaborator.   
2. Milligan J, Craven BC, Burns A, Lee J, Hillier L, Wolfe D, Bauman C. Enhancing Spinal Cord Injury Consumers by Clinical Use of Videoconferencing. 2017 Jul. Coauthor or Collaborator.   
3. Choukou A, Best KL, Craven BC, Noreau L, Hitzig SL. Identifying and Classifying Quality of Life Tools for Assessing Neurogenic Bowel Dysfunction After Spinal Cord Injury. Journal of Spinal Cord Med. 2017 May 16. Coauthor or Collaborator.   
4. Rivers C, Fallah N, Noonan VK, Whitehurst DGT, Schwartz C, Finkelstein J, Craven BC, Ethans K, O’Connell C, Truchon C, Ho C, Linassi AG, Short C, Tsai E, Drew B, Ahn H, Dvorak MF, Paquet J, Fehlings MG, Noreau L, RHSCIR Network. Secondary health conditiions: impact on function, health-related quality of life, and life satisfaction following traumatic spinal cord injury. Archives of Physical Medicine and Rehabilitation. 2017 Jan. Coauthor or Collaborator.   
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6. Furlan JC, Gulasingam S, Craven BC. Epidemiology of war-related spinal cord injury among combatants: A systematic review. The Journal of Spinal Cord Medicine. 2017 Jan. Senior Responsible Author.   
7. Alavinia SM, Omidvar M, Farahani F, Bayley M, Zee J, Craven BC. Enhancing quality practice for prevention and diagnosis of urinary tract infection during inpatient spinal cord rehabilitation. The Journal of Spinal Cord Medicine. 2017 Jan (Trainee publication, Research Fellow). Coauthor or Collaborator.   
8. Alavinia SM, Bayley M, Farahani F, Flett H, Hitzig SL, Craven BC. Establishing Indicators for Optimal Spinal Cord Injury Care - Phase One: Prioritization of Rehabilitation Domains. Archives of Physical Medicine and Rehabilitation. 2016 Dec 15 (Trainee publication, Research Fellow). Senior Responsible Author.   
9. Boggild M, Erlandson M, Tomlinson G, Szabo E, Giangregorio LM, Craven BC, Slatkovska L, Alibbhai S, Cheung A. Effect of whole-body vibration therapy on distal tibial myotendinous density and volume in postmenopausal women. JCEM. 2016 Dec. Coauthor or Collaborator.   
10. Adachi J, Craven BC, Papaioannou A, Giangregorio L, Thabane L, Moore C. Do Muscle Atrophy and Fat Infiltration of Muscle Persist or Plateau in Chronic SCI? Journal of Clinical Densitometry. 2016 Sep. Coauthor or Collaborator.   
11. Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. ‘Service Interruption’ and their impact on rehabilitation outcome variables in patients with traumatic spinal cord injury. 2016 Aug (Trainee publication, Clinical Fellow). Senior Responsible Author.   
12. Craven BC, Gibbs JC, Cote I, Thabane L, Adachi JD, Papaioannou A, Blencowe L, Lynch C, McCartney N, Popovic M, Giangregorio L. Bone Quality in Canadians with chronic spinal cord injury: A prospective cohort study. Int J PMR. 2015 Mar. Principal Author.   
13. Budisin B, Craven BC, Green R. Frequency of traumatic brain injury with Spinal Cord Injury: Understanding the disparity across studies. J Head Trauma Rehabil. 2014 Dec 18 (Trainee publication). Coauthor or Collaborator.   
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2. Bondi M, Burns AS, Gulasingam S Craven BC. Evidence Informed Protocols for the treatment of Sublesional Osteoporosis after SCI. 2017 Mar (Trainee publication). Principal Author.   
3. Cervinka T, Giangregorio LM, Craven BC. Capozza Index from pQCT Imaging Predicts 50% of Variance in Proximal Tibia DXA-derviced Z-scores. 2016 Sep. Senior Responsible Author.   
4. Loh E, Guy SC, Mehta S, Moulin DE, Bryce TN, Middleton JW, Siddall PJ, Hitzig SL, Widerstrom-Noga E, Finnerup NB, Kras-Dupuis A, Casalino A, Craven BC, Lau B, Cote I, Harvey D, O’Connell C, Orenczuk S, Parrent AG, Potter P, Short C, Teasell R, Townson A, Truchon C, Bradbury CL, Wolfe D. The CanPain SCI Clinical Practice Guidelines for Rehabilitation Management of Neuropathic Pain after Spinal Cord: introduction, methodology and recommendation overview. Spinal Cord. 2016 Jul;54(S1-S6). doi: 10.1038/sc.2016.88. Coauthor or Collaborator.   
5. Furlan JC, Massicotte EM, Craven BC. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 Apr (Trainee publication, Post Doctoral Fellow). Senior Responsible Author.   
6. Furlan JC, Craven BC. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 2016 Jan. Coauthor or Collaborator.   
7. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2015 Nov 9. Principal Author.   
8. Craven BC, Alavinia M, Flett H, Farahani F, Hitzig S, Bayley M. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. Archives PMR. 2015 Nov 9. Principal Author.   
9. Furlan JC, Fehlings MG, Craven BC. A Cost Utility Analysis Comparing Younger Versus Elderly Regarding Acute Care and Rehabilitation Management After Acute Traumatic Cervical Spinal Cord Injury. 2015 Nov. Coauthor or Collaborator.   
10. Furlan JC, Fehlings MG, Massicotte EM, Craven BC. A Cost Utility Analysis Comparing Early Versus Delayed Surgical Decompression of the Spinal Cord After Acute Traumatic Tetraplegia. 2015 Nov. Coauthor or Collaborator.   
Manuscript   
1. Shojaei MH, Alavinia M, Craven BC. Management of obesity after spinal cord injury: a systematic review. The Journal of Spinal Cord Medicine. 2017 Jun 1 (Trainee publication, Research Volunteer). Senior Responsible Author.   
Poster   
1. Burns A, Truchon C, Graveline C, Moore L, Craven BC. Shaping the optimal continuum of care: Using Canadian Registry data to identify key community indicators after traumatic spinal cord injury (tSCI). 2016 Sep 12. Coauthor or Collaborator.   
F. Presentations and Special Lectures   
1. INTERNATIONAL   
Invited Lectures and Presentations   
2017 Apr 5 Invited Speaker. Patient Self-Report Classificator. Wings for Life/SCITT. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. fill in.   
2016 Sep 14 Speaker, Senior Responsible Author. Moving from DXA to pQCT: feasibility and economic considerations and technical recommendations for the SCI community. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Pstakos E, Craven BC. 1)To highlight the importance of peripheral imaging in assessment of bone health and fracture risk among individuals with spinal cord injury or disease (SCI/D)   
2)To review the time required and associated direct medical costs for DXA and pQCT pre-screening, transfer, positioning, scan acquisition, and analysis by the technologist and reporting physician.   
3)To identify technical limitations of DXA, pQCT and HRpQCT for assessment for patients with SCI/D   
4)To provide a succinct review of pQCT/HRpQCT acquisition and analysis protocols in studies among patients with SCI/D based on a recent systematic review.   
5)To propose the most appropriate acquisition and analysis protocols, for diagnosis of sublesional osteoporosis, lower extremity fracture risk prediction, or monitoring of treatment effectiveness among individuals with SCI/D.   
6)To review the key constructs presented through case based discussion.   
2015 May 19 Co-Author. Methodological Considerations of Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Chronic Traumatic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Kotob R, Craven BC, Mathur S,Oh P, Ditor DS, Verrier MC. (Trainee Presentation).   
2015 May 16 Invited Speaker. Exploring the associations between serum sclerostin after nine months of whole body vibration therapy in people with spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Delparte JJ, Giangregorio L, Popovic MR, Szeto M. Primary Author.   
2015 May 14 Workshop Leader. Novel Non-Invasive Methods For The Clinical Assessment Of body Composition And Associated Endocrine-Metabolic Disease After Chronic SCI. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC, Pelletier C, Miyatani M, Moore C, Szeto M. This workshop was intended to provide participants with a framework and specific tools for determining endocrine-metabolic disease risk and identification of patients at risk for specific endocrine-metabolic events (mortality, fracture, Type II diabetes, heart disease).   
2013 May 8 Invited Lecturer. A Clinical Approach To Sublesional Osteoporosis (Bone Changes After SCI: A Problem with a Solution Workshop). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Schnitzer TJ, Craven BC, Morse L. (Continuing Education).   
2013 May 8 Collaborator. Neurogenic Bowel from the Perspective of Support Providers to Individuals with Spinal Cord Injury (SCI). American Spinal Injury Association (ASIA) 40th Anniversary Scientific Meeting. Chicago, Illinois, United States. Presenter(s): Burns AS, St-Germain D, Guindon A, Hitzig S, Delparte J, Craven BC, Connolly M. (Podium).   
2012 Sep 4 Keynote Speaker. Putting Evidence into Practice. International Spinal Cord Society (ISCOS), 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC.   
2012 Aug 16 Keynote Speaker. Spinal Cord Injury and Osteoporosis. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
2012 Aug 15 Keynote Speaker. Osteoporosis – Use of Bone Mineral Density in Spinal Cord Injuries. 23rd Brazilian Congress of Physical and Rehabilitation Medicine. São Paulo, Brazil. Presenter(s): Craven BC. (Continuing Education).   
Presented and Published Abstracts   
2016 Sep Co-Author. E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. Academy of Spinal Cord Injury Professionals Educational Conference. Nashville, Tennessee, United States. Presenter(s): Milligan J, Lee J, Craven BC., Wolfe D, Bauman C.   
  
Publication Details:   
E-Consultation: Building Capacity for Spinal Cord Injury Primary Care. The Journal of Spinal Cord Medicine. 2016;39(5):593. Coauthor or Collaborator.   
2015 Oct The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. Presenter(s): Brown Z, Gibbs J, Wong AKO, Craven BC, Adachi JD, Giangregorio L.   
  
Publication Details:   
The Reliability of Peripheral Quantitative Computed Tomography-Derived Marrow Fat Density and Area Measures Using Three Analysis Techniques. 2015 Oct. Coauthor or Collaborator.   
2015 May 16 Collaborator. 2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury. The 4th ISCoS and ASIA Joint Scientific Meeting, May 14-6, 2015. Montreal, Quebec, Canada. Presenter(s): Guy S, Mehta S, Loh E, SCI NP Working Group. I am a member of the Neuropathic Pain Guideline Working Group.   
  
Publication Details:   
2015 Canadian Rehabilitation Practice Guidelines: Neuropathic Pain in Person with Spinal Cord Injury.   
2015 May 15 Senior Responsible Author. Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Pelletier CA, Miyatani M, Moore C, Giangregorio L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Vigorous Physical Activity is Associated with a Lower Percentage Body Fat in Adults with Chronic Spinal Cord Injury.   
2015 May 15 Coauthor. Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Popovic MR, Kapadia N, Hitzig SL, Giangregorio LM, Craven BC, Flett H.   
  
Publication Details:   
Functional Electrical Stimulation Therapy for Walking in Incomplete SCI Patients: Effects on Walking Competency.   
2015 May 15 Coauthor. Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI). 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Burns A, Truchon C, Graveline C, Moore L, Craven BC, ACT Indicator National Working Group.   
  
Publication Details:   
Shaping the Optimal Continuum Of Care: Using Canadian Registry Data To Identify Key Community Indicators After Traumatic Spinal Cord Injury (tSCI).   
2014 Sep Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Sep Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. Available from: http://www.asbmr.org/Meetings/AnnualMeeting/AbstractDetail.aspx?aid=51d4e88b-f79d-47e2-a15b-134f0c57b52e.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. J Bone Miner Res. 2014 Sep;29(Suppl 1). Coauthor or Collaborator.   
2014 Neurologic examinations - anatomy and severity.   
  
Publication Details:   
Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM et al. Neurologic examinations - anatomy and severity. Top Spinal Cord Inj Rehabil. 2014. Coauthor.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Malada, Spain. Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. (Trainee Presentation)   
  
Publication Details:   
Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods.   
Invited Meetings   
2013 Oct 2 Chair. E-Scan: Moving from Blueprint to Action 2013. Ontario Neurotrauma Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Two day consensus meeting (October 2- 3, 2013) leading to the development of a rehabilitation manifesto.   
Podium Presentation   
2012 May 15 Collaborator. Addressing Privacy Requirements for the Development of a National Health Registry in Canada. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Joshi P, Noonan V, Thorogood N, Fehlings MG, Craven BC, Linassi AG, Fourney DR, Kwon BK, Bailey CS, Tsai E, Drew B, Ahn H, Dvorak M.   
Poster   
2016 Sep 14 Collaborator. E-Consultation: Building Capacity for Spinal Cord Injury in Primary Care. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Milligan J, Lee J, Craven BC, Wolfe D, Bauman C. (Trainee Presentation).   
2016 Sep 14 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Grades Among Individuals with Chronic Spinal Cord Injury. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Sep 14 Collaborator. What does clinical practice for spinal cord injury pain look like in Canada? A national survey of healthcare providers. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Guy S, Cote I, Craven BC. Loh E. (Trainee Presentation).   
2016 Sep 13 Collaborator. Bridging the Gaps from Spinal Cord Injury Research to Improved Outcomes: PRAXIS 2016. 55th Annual Meeting of the International Spinal Cord Society. Vienna, Austria. Presenter(s): Creasey GH, Andresen KD, Choi D, Clarke-Richardson P, Craven BC, Guest JD, Kleitman N, Kwon BK, McKerracher L, Hunder Peckham P, Steeves JD, Strachan D, Tomlinson M, Truchon C, White B, Joshi P. (Trainee Presentation).   
2015 May 19 Senior Responsible Author. Relationship between Carotid-Femoral Arterial Stiffness and Carotid Intima-Media Thickness in Individuals with Chronic Spinal Cord Injury. 3rd International Autonomic Symposium: Dysfunctions of the Autonomic Nervous System. Vancouver, British Columbia, Canada. Presenter(s): Miyatani M, Szeto M, Alavinia SM, Oh PI, Craven BC. This study explores the association between Carotid-Femoral PWV and Carotid IMT in a cohort of patients with chronic spinal cord injury (n=74). (Trainee Presentation).   
2015 May 14 Coauthor. Identifying and classifying quality of life tools for assessing bladder dysfunction after spinal cord injury. 4th International Spinal Cord Society and American Spinal Injury Association’s Joint Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Best KL, Hitzig SL, Ethans K, Craven BC, Noreau L.   
2014 Oct 7 Senior Responsible Author. The Participation and Quality of Life (PAR-QoL) Tool-Kit: Outcomes and Next Steps. American Congress of Rehabilitation Medicine (ACRM) Progress in Rehabilitation Research Annual Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Routhier F, Noreau L, Kairy D, Atack L, Craven BC. Poster presentation on the PAR-QoL website. (Continuing Education).   
2014 Sep 14 Coauthor. Longitudinal Changes in Distal Lower-Extremity Muscle Area and Density after Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Blencowe L, Popovic MR, Laing A, Giangregorio L. (Trainee Presentation).   
2014 Sep 12 Coauthor. Lower Extremity Muscle Size, Density and Function Is Associated with Indices of Bone Quality in Individuals with Chronic Spinal Cord Injury. American Society for Bone Mineral Research (ASBMR) 2014 Annual Meeting. Houston, Texas, United States. Presenter(s): Gibbs JC, Craven BC, Moore C, Thabane L, Papaioannou A, Adachi JD, Popovic MR, McCartney N, Giangregorio L. (Trainee Presentation).   
2014 Sep Coauthor. Neurogenic Bowel after Spinal Cord Injury (SCI): the Perceived Importance of Identified Concerns to Persons with SCI and Health Care Professionals. International Spinal Cord Society (ISCOS) 53rd Annual Scientific Meeting. Maastricht, Limburg, Netherlands. Presenter(s): Burns AS, St.-Germain D, Guindon A, Hitzig SL, Delparte JJ, Craven BC, Connolly M, Wolfe D.   
2014 May 14 Collaborator. Neurologic examinations - anatomy and severity. American Spinal Injury Association (ASIA) 41st Anniversary Scientific Meeting. San Antonio, Texas, United States. Presenter(s): Ahn H, Attabib N, Bailey C, Christie S, Craven BC, Drew B, Dvorak M, Fallah N, Fehlings M, Fisher C, Fourney D, Fox R, Gagnon D, Ho C, Hurlbert J, Johnson M, Kwon B, Linassi G, Mac-Thiong JM, Noonan V, Paquet J, Parent S, Rivers C, Townson A, Tsai EC, Tsui D.   
2014 Mar 20 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. The International Brain Injury Association’s 10th World Congress on Brain Injury. San Francisco, California, United States. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Nov 27 Senior Responsible Author. Exploring Daily Blood Pressure Fluctuations Among Individuals with Chronic SCI During Activities of Daily Living. The 2nd International Symposium on Autonomic Dysfunctions Following Spinal Cord Injury. Vancouver, British Columbia, Canada. Presenter(s): Dance D, Chopra A, Szeto M, Campbell K, Ditor D, Hassouna M, Craven BC. Poster Competition Award Winner, 4th Place. (Trainee Presentation).   
2013 Nov 5 Senior Responsible Author. Interim Results from the Burden of Bowel Dysfunction in Spinal Cord Injury Study. ISPOR 16th Annual European Congress. Dublin, Ireland. Presenter(s): Mittmann N, Bannon G, Hassan S, Seung SJ, Kee P, Cartolano NS, Pinto PM, Smith K, Wolfe D, Craven C.   
2013 Oct 29 Senior Responsible Author. Preliminary face validity of target SCIM III median values for prediction of functional outcome after traumatic SCI. International Spinal Cord Society (ISCOS) 52nd Annual Scientific Meeting. Istanbul, Istanbul, Turkey. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2012 Oct 15 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. American Society for Bone and Mineral Research (ASBMR) 2012 Annual Meeting. Minneapolis, Minnesota, United States. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi J, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Oct 9 Coauthor. Cautions regarding subcapital whole body DXA scan interpretation among boys with Duchenne Muscular Dystrophy (DMD). 17th International Congress of the World Muscle Society. Perth, Australia. Presenter(s): Mayo AL, McAdam L, Biggar WD, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 Sep 3 Principal Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A, Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM, Popovic MR.   
2012 Sep 3 Senior Responsible Author. Association between arterial stiffness, cardiovascular risk factors, and injury related risk factors in people with spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Sep 3 Principal Author. Predicting health preference in spinal cord injury. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Hitzig SL, Giangregorio LM, Katz J, Noreau L, Wolfe D, Mittmann N.   
2012 Sep 3 Principal Author. Exploring the feasibility and scalability of central recruitment for patients with subacute SCI in tertiary academic rehabilitation centres. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Brisbois LM, Carson JR, Verrier MC.   
2012 Sep 3 Senior Responsible Author. Development of a sham condition for a future whole body vibration intervention trial. International Spinal Cord Society (ISCOS) 51st Annual Scientific Meeting. London, United Kingdom. Presenter(s): Craven BC, Rashidi A. Alizadeh-Meghrazi M, Szeto M, Delparte JJ, Masani K, Giangregorio LM. Popovic MR.   
2012 Sep 3 Sr. Responsible Author. The frequency and severity of adverse events during whole body vibration (WBV) and passive standing among individuals with chronic spinal cord injury. 51st Annual Meeting of the International Spinal Cord Society (ISCoS). London, Westminster, United Kingdom. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio L, Popovic MR.   
2012 May 17 Collaborator. Identifying Quality of Life Outcome Tools for Measuring the Impact of Pressure Ulcers in Persons with Spinal Cord Injury. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Nussbaum E, McGillivray C, Noreau L. (Trainee Presentation).   
2012 May 17 Coauthor. Walking Measures Inform SCI Rehabilitation Practice and Research. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Verrier M, Guy K, Morris H, Williams J, Marinho A, Popovic M, Craven BC, Flett H.   
2012 May 17 Collaborator. Examining workplace activity limitations among young adults living with spinal cord injuries: A pilot study. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Jetha A, Craven BC, Badley E, Beaton D, Gignac M. (Trainee Presentation).   
2012 May 16 Principal Author. Using Scoping Review Methodology to Conduct a Canadian Spinal Cord Injury (SCI) Rehabilitation Environmental Scan (E-Scan). Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Craven C, Balioussis C, Verrier M, Hsieh J, Noonan V, Raschid A, Wolfe D, Cherban E.   
2012 May 15 Coauthor. Rick Hansen Spinal Cord Injury Registry and Ontario Spinal Cord Injury Registry: Relationships Between Respiratory Status and Length-Of-Stay in Acute Care and Rehabilitation. Interdependence 2012 Global SCI Conference, Rick Hansen Institute. Vancouver, British Columbia, Canada. Presenter(s): Tsui D, Drew B, Ansley B, Macrae L, Craven BC, Verrier M. (Continuing Education).   
2012 May Senior Responsible Author. The Associations Between Aerobic Capacity and Arterial Stiffness in People with Chronic Spinal Cord Injury. American College of Sports Medicine. San Francisco, California, United States. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. ACSM’s 59th Annual Meeting and 3rd World Congress on Exercise is Medicine, May 29- June 2, 2012, San Francisco, California. (Trainee Presentation).   
2012 Mar 23 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis. Bordeaux, France. Presenter(s): Wong AKO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L. IOF-ECCEO12 European Congress on Osteoporosis and Osteoarthritis, Palais des Congrès de Bordeaux, France, March 21-24, 2012.   
2012 Mar 21 Collaborator. Reliability of pQCT-derived Muscle Area and Density Measures on Water-Shed versus Threshold-Based Segmentation Methods. 2012 IOF-ECCE012 European Congress on Osteoporosis and Osteoarthritis Annual Meeting. Brussels, Belgium. Presenter(s): Wong KO, Bhargava A, Hummel K, Shaker S, Beattie KA, Gordon CL, Craven BC, Adachi JD, Giangregorio L.   
2. NATIONAL   
Invited Lectures and Presentations   
2017 May 25 Invited Speaker. Sarcopenic Obesity, Endocrine Metabolic Disease Risk & Other Mysterious Terms. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC.   
2017 May 25 Invited Speaker. Career Reflections. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Invited keynote presentation as the Award of Merit recipient.   
The session was intended to assist attendees in 1) distinguishing valuable mentors; the importance of demonstrating CAPMR organizational commitment through networking activities; scheduling time out of the blur to articulate academic goals, synthesize the unique challenges for the field and advance care in the coming decade.   
Criteria for the Award of Merit nomination:   
Must be a member in good standing with the CAPM&R (any category).   
Must have contributed to the activities of the CAPM&R and/or CPRDF   
Must not be a current member of the CAPM&R Executive Committee.   
Must be nominated by his/her peers, at least one who is a CAPM&R member.   
Has made a contribution to the field of Physiatry, through research, education, advocacy, medical care, humanitarianism, mentorship, or the advancement of our field.   
2017 Apr 7 Invited Speaker. Central Recruitment Moving from Pilot Project to Institutional Wide Implementation. ICORD. Vancouver, British Columbia, Canada. Presenter(s): Craven BC. Learning Objectives:   
1. Why Clinical Trials Fail   
2. How to Augment Recruitment   
3. The CR Model   
4. Assumptions Underpinning CR   
5. Implementation Strategies.   
2016 Nov 11 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-HIGH). Canadian Spinal Cord Injury Urohealth Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. 1. To provide an overview of the SCI-HIGH project   
2. To emphasize the importance of UTI prevention among rehabilitation domains   
3. To highlight the activities of the SCI-HIGH UTI working group and the E-Scan prescription for change.   
2016 Oct 18 Invited Speaker. Bone Health Service for Patients with SCI: Self Evaluation. Arthur Shears Rehab Research Day. Halifax, Nova Scotia, Canada. Presenter(s): Craven BC.   
2016 May 27 Workshop Leader. A review of Cervical Spondylotic Myelopathy (CSM) and Introduction to the SCI-HIGH project. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Furlan JC.   
2016 May 25 Facilitator. Time Management Pearls for Busy Clinicians and Scientists. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Craven BC, Bayley M, Teasell R.   
2016 May 24 Invited Speaker. SCI Rehabilitation Care High Performance Indicators Project Update. Rick Hansen Institute Care Advisory Committee Meeting. London, Ontario, Canada. Presenter(s): Craven BC.   
2016 Apr 25 Invited Speaker. Making Real Change: In the Context of the “Exercise is Medicine” Paradigm. Rick Hansen Institute Praxis 2016. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2015 May 23 Invited Speaker. Research Budget Writing for Dummies. CAPM&R 63rd Annual Scientific Meeting. Vancouver, British Columbia, Canada. Presenter(s): Craven BC.   
2014 Jun 21 Invited Speaker. CAPM&R SCI Special Interest Group Meeting: Challenging cases and updates on Canadian research. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC, Smith K. Objectives:   
At the end of this session, participants will be able to:   
1) Outline the approach to the management of osteoporosis following acute spinal cord injury   
2) Describe the potential role of postprandial hypotension on autonomic instability following spinal cord injury.   
2013 May 29 Invited Speaker. CAPM&R Research Committee Meeting: How to Write a Brilliant Letter of Nomination/Recommendation. CAPM&R 2013 Annual Scientific Meeting. Montreal, Quebec, Canada. Presenter(s): Craven BC.   
2012 Oct 20 Invited Speaker. Capturing Capacity in SCI Rehabilitation in Canada: E-Scan Atlas. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Cherban E, Hsieh J, Noonan V, Rasheed A, Verrier M, Wolfe D. (Continuing Education).   
2012 Oct 19 Invited Speaker. Top Six Articles You Need to Read. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Short C, Smith KM, Ethans K, Krassioukov A, O’Connell C. (Continuing Education).   
2012 Jan 20 Invited Speaker. Canadian Comprehensive Review Course in Physical Medicine & Rehabilitation: Secondary Health Complications of Spinal Cord Injury. Canadian Association of Physical Medicine & Rehabilitation / University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven, BC. To provide a succinct overview of the common and serious secondary health complications of SCI.   
Presented Abstracts   
2017 May 24 Senior Responsible Author. Patient Recruitment in Spinal Cord Inured Populations: An Ethical Model at Toronto Rehabilitation Institute. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Brisbois, L, Heeters A, Craven BC.   
2017 May 24 Senior Responsible Author. The Health Economics of the Spinal Cord Injury or Disease (SCI/D) Among War Veterans: A Systematic Review. CAPMR 65th Annual Scientific Meeting. Niagara Falls, Ontario, Canada. Presenter(s): Sivakumar G, Furlan J, Craven BC.   
2016 May Senior Responsible Author. How do you feel? A review of mood disorder screening tools appropriate for use during inpatient spinal cord injury rehabilitation. 2016 CAPMR-64th Annual Scientific Meeting. London, Ontario, Canada. Titman R, Craven BC. (Trainee Presentation).   
2016 May Senior Responsible Author. A Cost-Utility Analysis Comparing Younger versus Elderly Regarding Acute Care and Rehabilitation Management after Acute Traumatic Cervical Spinal Cord Injury. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
Presented and Published Abstracts   
2016 May 27 Senior Repsonsible Author. Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Titman R, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Screening for Mood Disorders during Inpatient Spinal Cord Injury Rehabilitation.   
2016 May 27 Senior Repsonsible Author. The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Craven BC. (Trainee Presentation)   
  
Publication Details:   
The Japanese Orthopedic Association (JOA) Score in the assessment of patients with cervical spondylotic myelopathy: A Systematic Review and Critical Appraisal.   
2016 May 27 Senior Repsonsible Author. Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation. 64th Annual Meeting of Canadian Association of Physical Medicine and Rehabilitation. London, Ontario, Canada. Presenter(s): Furlan JC, Robinson L, Craven BC. (Trainee Presentation)   
  
Publication Details:   
Tardy Recognition of episodes of autonomic dysreflexia: Experiences demanding more effective knowledge translation.   
2016 Apr Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Craven BC. (Trainee Presentation)   
  
Publication Details:   
Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains.   
2014 Sep It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada.   
  
Publication Details:   
Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. J Spinal Cord Med. 2014 Sep;37(5):616. Principal Author.   
2014 Sep Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice.   
  
Publication Details:   
Hadi SC, Craven BC. Incorporating Evidence-Based Practice into Life Care Plans Through Scholarly Practice. J Spinal Cord Med. 2014 Sep;37(5):618-619. Senior Responsible Author.   
2014 Sep Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study.   
  
Publication Details:   
Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. J Spinal Cord Med. 2014 Sep;37(5):619-620. Senior Responsible Author.   
2014 Sep Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury.   
  
Publication Details:   
Moore C, Craven BC, Thabane L, Papaioannou A, Adachi R, Popovic M, Giangregorio L, McCartney N. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):647-648. Coauthor or Collaborator.   
2014 Sep Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis.   
  
Publication Details:   
Noonan et al. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials by Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. J Spinal Cord Med. 2014 Sep;37(5):622-623. Coauthor.   
2014 Sep Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective.   
  
Publication Details:   
Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. J Spinal Cord Med. 2014 Sep;37(5):630. Coauthor.   
2014 Sep The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury.   
  
Publication Details:   
El-Kotob R, Verrier MC, Mathur S, Craven BC. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. J Spinal Cord Med. 2014 Sep;37(5):644-645. Senior Responsible Author.   
2014 Sep Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey.   
  
Publication Details:   
Pelletier C, Dumont F, Noreau L, Craven BC. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. J Spinal Cord Med. 2014 Sep;37(5):648. Senior Responsible Author.   
2014 Sep Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto.   
  
Publication Details:   
Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. J Spinal Cord Med. 2014 Sep;37(5):658. Principal Author.   
2014 Sep Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines?   
  
Publication Details:   
Noonan et al. Current Treatment of Individuals with Traumatic Spinal Cord Injury: Do We Need Age-Specific Guidelines? J Spinal Cord Med. 2014 Sep;37(5):623. Coauthor or Collaborator.   
Media Appearances   
2013 May 17 Talk Show Guest. Spinal Cord Injuries & E-Scan Atlas Release. Interviewer: Dr. Marla Shapiro. Dr. Marla and Friends, CTV. Toronto, Ontario, Canada. Presenter(s): BC Craven. Episode 33: Short segment discussing current state of spinal cord injury in Canada and potential impact of the E-Scan Atlas release on the state of spinal cord injury rehabilitation in 2020.   
Invited Meeting   
2016 May 24 Facilitator. Rick Hansen Care Advisory Committee Strategic Planning Session. Rick Hansen Institute. London, Ontario, Canada. Chair of the Care Committee responsible for implementing the strategic planning session intended to inform the 2013-2018 RHI Business Plan.   
2014 Oct 2 Invited Attendee. Canadian Pressure Ulcer Strategy Meeting. Rick Hansen Instititute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Invited Attendee. Rick Hansen Institute Care Program Advisory Committee Meeting. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. This was a two day meeting of the advisory committee, from October 4th-5th, as it related to the implementation of Rick Hansen Institute’s 2013-2018 business plan.   
2012 Aug 10 Invited Attendee. Rick Hansen Institute Translational Research Advisory Committee (TRAC) Retreat. Rick Hansen Institute (RHI). Toronto, Ontario, Canada. The objective of the TRAC retreat is to identify translational research and best practice implementation priorities to RHI’s Board of Directors for the period of 2013-2018 using the funds committed by the federal government through the Western Economic Diversification Fund (WD) to RHI in the 2012 federal budget.   
2012 May 15 RHSCIR Site Lead. Rick Hansen Spinal Cord Injury Registry (RHSCIR) Investigator Meeting. Rick Hansen Institute. Vancouver, British Columbia, Canada. The Rick Hansen Spinal Cord Injury Registry (RHSCIR) project aims to collect a standardized observational dataset throughout the continuum of care and lifetime of individuals sustaining new, traumatic spinal cord injuries and admitted to participating facilities in Canada. The RHSCIR Investigator meeting provides an opportunity for an update on the current project status, plans for data access, and to provide an opportunity to shape the future vision and deliverables of the project.   
Media Highlights of Research Activities   
2014 Dec Responsible Author for featured work. PAR-QoL Newsletter. Toronto, Ontario, Canada. This newsletter features the Spinal Cord Injury Manifesto.   
www/idapt.com/research/manifesto. Available from: http://www.parqol.com/newsletter\_view.cfm.   
Poster   
2017 May 12 Senior Responsible Author. Association between Statin Treatment and Regional Bone Mineral Density in Individuals with Chronic Spinal Cord Injury: A Cross-Sectional Study. ONF-RHI. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Alavinia M, Blencowe L, Giangregorio LM, Craven BC. RoBaCO Trial Pilot Data.   
2016 Apr Senior Responsible Author. A Cost-Utility Analysis Comparing Early versus Delayed Surgical Decompression of the Spinal Cord after Acute Traumatic Tetraplegia. 2016 ASIA-42nd Annual Meeting. Philadelphia, Pennsylvania, United States. Furlan J. (Trainee Presentation).   
2016 Apr Senior Responsible Author. The SCI-HIGH (Spinal Cord Injury High Performance Indicators) process for advancing SCI rehabilitation care by 2020. 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Strategies to Eliminate Hospital Acquired Urinary Tract Infection (HA-UTI) during Spinal Cord Injury (SCI). 2016 RHI Praxis Meeting. Vancouver, British Columbia, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2016 Apr Senior Responsible Author. Acute Care and Rehabilitation Management of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. The American Academy of Neurology 68th Annual Meeting. Vancouver, British Columbia, Canada. Furlan J, Craven BC. (Trainee Presentation).   
2014 Oct 4 Presenter. Moving from the E-Scan Atlas to Action: Development of a SCI Rehabilitation Manifesto. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Balioussis C, Verrier MC, Hsieh JT, Cherban E, Noonan V, Wolfe D. Award Winner Education Category- 2nd Place.   
2014 Oct 4 Coauthor. Minimizing Errors in Traumatic Spinal Cord Injury Clinical Trials By Acknowledging the Heterogeneity of Spinal Cord Anatomy and Injury Severity: An Observational Canadian Cohort Analysis. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan et al.   
2014 Oct 4 Coauthor. Use of Mobility Assistive Devices Among Individuals with a Spinal Cord Injury Upon Discharge From Inpatient Rehabilitation: A Canadian Perspective. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Gagnon D, Kandiloitis M, Verrier MC, Craven BC, Ethans K, Noonan V, Rivers C.   
2014 Oct 4 Senior Responsible Author. The Effect of Exercise on Heart Rate Variability in Spinal Cord Injury. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): El-Kotob R, Verrier MC, Mathur S, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Self Report of One-Year Incident Fractures: Findings from the SCI Community Survey. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Pelletier CA, Dumont FS, Noreau L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, McCartney N, Papaioannou A, Popovic MR, Thabane L, Craven BC. (Trainee Presentation).   
2014 Oct 4 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury (SCI). 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L, McCartney N. (Trainee Presentation).   
2014 Oct 4 Presenter. It’s not just about Neurology: Impairment, Medical Complexity and Functional Ability Predict Rehab Length of Stay in Canada. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven BC, Ethans K, Gagnon D, Linassi AG, Tsui D, Townson A, Rivers C, Chen J, Noonan V.   
2014 Oct 4 Senior Responsible Author. Rehab Interrupted: Frequency, Type And Duration Of Service Interruptions During Inpatient SCI Rehabilitation. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Bhide RP, Farahani F, Flett H, Noonan VK, Santos A, Rivers CS, Craven BC and the RHSCIR Network. (Trainee Presentation).   
2014 Oct 3 Senior Responsible Author. Incorporating Evidence-Based Practice Into Life Care Plans Through Scholarly Practice. 6th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hadi SC, Craven BC.   
2014 Jun 20 Senior Responsible Author. Survey of Canadian Practice Patterns in Venous Thromboembolism Prophylaxis in Adults with Spinal Cord Injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townsen A, Jacquemin G, Short C, Smith K, O’Connell C, Askari S, Ho C, Hill D, Craven BC. (Trainee Presentation).   
2014 Jun 20 Invited Speaker. Is self-report of neurological impairment among persons living with chronic spinal cord injury sufficiently accurate for research studies? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Craven BC (presenter), Zeng L, Farahani F, Hitzig SL. Original Research Contest Award Winner: 3rd Place.   
2014 Jun 19 Senior Responsible Author. Evaluating Practice Patterns in Thromboembolism Prophylaxis in Adults with Spinal Cord Injury: Practice of Canadian Spinal Cord Injury Rehabilitation Physiatrists. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Deng G, Ethans K, Townson A, Jacquemin G, Short C, O’Connell C, Smith K, Askari S, Ho C, Hill D, Craven BC.   
2014 Jun 19 Collaborator (expert panel). The development of a clinical practice guideline for the diagnosis and management of neuropathic pain following spinal cord injury. CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Guy S, Mehta S, Gorski J, O’Connell C, Potter P, Townson A, Loh E, and CPG Working Group.   
2012 Oct 19 Coauthor. Lack of generalizability of the randomized clinical trials on initial management of acute traumatic cervical spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Furlan J, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Oct 19 Collaborator. FES-assisted walking versus conventional exercise to augment gait in chronic spinal cord injury: Impact on quality of life and community integration. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Panjwani A, Craven BC, Desai N, Popovic MR. (Trainee Presentation).   
2012 Oct 19 Coauthor. Exploring relationships between knee region bone mineral density and prevalent fractures among individuals with SCI: A nested case-control study. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Giangregorio L. (Trainee Presentation).   
2012 Oct 19 Coauthor. Metabolic Syndrome (MetS) Risk Factors are not Sufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Oct 19 Coauthor. Social Networks and Secondary Health Conditions: The Critical Secondary Team for Individuals with a Spinal Cord Injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Lemieux-Charles L, Casciaro T, Craven BC, McColl MA, Jaglal S. Poster Award Winner- Patient Care Category. (Trainee Presentation. Continuing Education).   
2012 Oct 19 Collaborator. Access to Care (ACT) For Traumatic Spinal Cord Injury: A Survey of Canadian Acute and Rehabilitation Centres. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Noonan VK, Townson A, Fox R, Hurlbert RJ, Linassi AG, Ethans K, Tsui D, Burns AS, Craven C, Wolfe D, Truchon C, Gagnon D, Charron J, Fehlings MG, Soril L, Santos A, Dvorak MF.   
2012 Oct 19 Coauthor. Knee DXA Measurement for the Assessment of Sub-lesional Osteoporosis After Spinal Cord Injury: A Knowledge Translation (KT) Activity. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Craven C, Coté I, Wolfe D, Boulet M, Giangregorio L. (Continuing Education).   
2012 Oct 19 Coauthor. Dealing with Secondary Health Conditions and Spinal Cord Injury: An Uphill Battle in the Journey of Care. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Lemieux-Charles L, Casciaro T, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. A Randomized Controlled Trial of Functional Electrical Stimulation Therapy for Walking Versus a Conventional Exercise Program in Patients with Chronic Incomplete Spinal Cord Injury: Effects on Body Composition. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Giangregorio L, Craven C, Kapadia N, Richards K, Popovic MR.   
2012 Oct 19 Senior Responsible Author. Associations Between Arterial Stiffness and Traditional and SCI Specific Cardiovascular Disease Risk Factors. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh P, Craven C. (Trainee Presentation).   
2012 Oct 19 Coauthor. Functional Electrical Stimulation Therapy for Walking Versus Conventional Exercise Program for Patients with Chronic Incomplete Spinal Cord Injury: A Randomized Controlled Trial. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Kapadia N, Masani K, Craven C, Giangregorio L, Hitzig S, Richards K, Popovic MR.   
2012 Oct 19 Coauthor. Is the Emergency Department an Appropriate Substitute for Primary Care for Persons with Traumatic Spinal Cord Injury? 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guilcher S, Craven C, Calzavara A, McColl MA, Jaglal S. (Trainee Presentation).   
2012 Oct 19 Coauthor. Direct Cost of Adult Traumatic Spinal Cord Injury in Ontario. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Munce SEP, Wodchis W, Guilcher SJT, Couris C, Verrier M, Fung K, Craven BC, Jaglal SB.   
2012 Oct 19 Coauthor. A phenomenological analysis of neurogenic bowel dysfunction following spinal cord injury. 5th National Spinal Cord Injury Conference. Toronto, Ontario, Canada. Presenter(s): Guindon A, Hitzig SL, Connolly M, Delparte JJ, Craven BC, St-Germain D, Burns AS.   
2012 Jun 22 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Craven B, Oh P. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Coauthor. Bone Health in Boys with Duchenne Muscular Dystrophy on Long-term Daily Deflazacort Therapy. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Mayo A, Craven B, McAdam L, Biggar W. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Using Scoping Review Methods to Describe & Evaluate Canadian SCI Rehabilitation Service Delivery. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Verrier M, Balioussis C, Hsieh J, Rasheed A, Wolfe D, Noonan V. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 Jun 22 Principal Author. Knowledge Translation Initiatives to Increase the Detection and Improve Management of Sublesional Osteoporosis after SCI. CAPM&R. Toronto, Ontario, Canada. Presenter(s): Craven B, Adachi J, Hawker G, McGillivray C, Cote I, Giangregorio L. 60th CAPM&R Annual Scientific Meeting, Toronto, ON, June 20-23, 2012.   
2012 May 6 Collaborator. Preliminary Results from the Baseline Questionnaire of the Burden of Bowel Dysfunction in Spinal Cord Injury Study. Canadian Association for Population Therapeutics (CAPT) Annual Conference. Montreal, Quebec, Canada. Presenter(s): Mittmann N, Seung SJ, Hassan S, Bannon G, Craven BC. 2012 CAPT Annual Conference “Effectiveness and safety of therapeutics: Dealing with transparency, minimizing bias, and improving knowledge translation to concerned stakeholders”, Montreal, QC, May 6-8, 2012.   
Poster Presentation   
2014 Jun 20 Collaborator. Inpatient Rehabilitation Length of Stay and Survival following Malignant Spinal Cord Compression: Is It Worth It? CAPM&R 2014 Annual Scientific Meeting. St. John’s, Newfoundland and Labrador, Canada. Presenter(s): Fortin C (presenter), Voth J, Jaglal S, Craven BC. Resident Research Award Winner: 3rd Place. (Trainee Presentation).   
3. PROVINCIAL / REGIONAL   
Invited Lectures and Presentations   
2017 Mar 31 Invited Speaker. Improving Primary Care and Community Support. SCI Solutions Alliance, Ministry of Health. Toronto, Ontario, Canada. Presenter(s): Craven BC, Athanasopoulous P, Bassett-Spiers K, Milligan J, Berg P. A dialogue regarding opportunities to advance primary care and community support for patients living with spinal cord injury in the community within Ontario. (Presentation to Patients/Public).   
2017 Mar 17 Distinguished Speaker. Biomechanics in Action: Perspectives from a Tertiary Spinal Cord Injury Rehab Hospital. York University School of Kinesiology and Health Science. North York, Ontario, Canada. Presenter(s): Craven BC. Two 1 Hour Lectures to undergraduate KINE 3030 Students with 400 students in each session overall learning objctives included:   
-Who am I, How & where do I spend my time?   
-How did I get here?   
-Individuals living with a Spinal Cord Injury (SCI), their Health Issues & Exercise Dilemmas   
-Biomechanics in Action - The Promise of WBV   
-Words to the Wise.   
2016 Nov 23 Invited Speaker. Staying Healthy After Spinal Cord Injury. Primary and Community Care Spinal Cord Injury Summit. Toronto, Ontario, Canada. Presenter(s): Craven BC. After this session you will be able to:   
Help to prevent inappropriate ER visits   
Implement strategies for detection of common & serious health conditions after SCI   
Introduce you to the 100,000km tune-up.   
2016 Nov 18 Invited Speaker. Endocrine Metabolic Disease Risk: What’s Next? The RoBaCO Trial. 15th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Body Composition and Multi Morbidity after Spinal Cord Injury. 14th Annual Charles Tator-Barbara Turnbull Lectureship Series in Spinal Cord Injury. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 13 Invited Speaker. Endocrine Metabolic Disease Risk after Spinal Cord Injury: Legitimate Intervention Targets. Tator/Turnbull Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Oct 23 Invited Speaker/Workshop Leader. New SCI Standards Introductions to People and Processes to Facilitate Adoption and Accreditation. Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Guy K, Devji T, Bertoli-Haley S, Walden K, Noonan V. This interactive workshop outlines best practices described in the SCI standards, highlight current resources available to support sites interested and/or undergoing accreditation, discuss strategies for addressing challenging standards, aids sites in preparation for Accreditation Canada tracers, enable cross site networking, and identify how participation in SCI-High will support future benchmarking and optimal care delivery.   
2015 Oct 23 Invited Speaker. Spinal Cord Injury Rehabilitation Care High Performance Indicators (SCI-High). Ontario Spinal Cord Injury Research Network (OSCIRN). Toronto, Ontario, Canada. Presenter(s): Craven BC, Flett H, Bayley M, Hitzig SL, Alavinia M, Farahani F. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting Oct 23, 2015.   
2015 Jun 11 Speaker. Auto Insurance Reform and SCI Rehabilitation. Ontario Ministry of Finance. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Athanasopoulos. Provided data to the Ministry of Finance to support the statement that the proposed Catastrophic Impairment Funding Thresholds for SCI are rather arbitrary and insufficient.   
2015 Jan 12 Presenter. Sarcopenic Obesity in Patients with Spinal Cord Injury: Moving Towards a Global Measure of Metabolic Disease. The Department of Physical Medicine and Rehabilitation, University of Western Ontario. London, Ontario, Canada. Presenter(s): Craven BC. Provided feedback to each of the residents following their Research Day presentations.   
2014 Oct 31 Invited Speaker. Post Debate Commentary, Techna 2014 Symposium-Robotics for Healthcare. Techna Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC, Bell R. Audit 8 hours of presentations throughout the day and provide 60 minutes of post event commentary. Available from: http://symposium.technainstitute.com/speeches.php. (Continuing Education).   
2013 Jun 13 Invited Speaker. Implications of SCI Research in Life Care Planning. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on current spinal cord injury research at the biannual Practical Strategies Conference.   
2012 Jan 19 Invited Speaker. From Hospital to Home- The Continuum of Care After SCI. Oatley, Vigmond. Toronto, Ontario, Canada. Presenter(s): Craven, BC. Presentation on the ABC’s of Autonomic Dysreflexia. (Presentation to Patients/Public).   
Presented Abstracts   
2016 Nov 18 Speaker. The RoBaCO Trial: Efficacy & Safety of Rosuvastatin for Preserving Bone Mass & Reducing Cardio-Metabolic Disease Risk after SCI. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 18 Research Supervisor. Selecting a Screening Tool for Depression in Spinal Cord Injury. University of Toronto, Division of Physical Medicine and Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Titman R. (Trainee Presentation).   
Invited Meeting   
2015 Apr 15 Steering Committee Member. PRISM: Primary Care and Rehabilitation and Integration with self management for Spinal Cord Injury. Waterloo, Ontario, Canada.   
2014 Dec 17 Presenter. ONF-REPAR Meeting. ONF-REPAR. Toronto, Ontario, Canada. Presenter(s): Craven BC, Maltais D. SCI-IMPACT Team Update on Activities 2011-2014.   
2014 Sep 15 Attendee. Management of Neuropathic Pain After Spinal Cord Injury: Clinical Practice Guidelines for the Rehabilitation and Outpatient Setting. ONF/Rick Hansen Institute. Toronto, Ontario, Canada.   
Invited Meetings   
2013 Oct 4 Attendee. Ontario Spinal Cord Injury Research Network (OSCIRN). Ontario Neurotrauma Foundation (ONF). Toronto, Ontario, Canada.   
2012 Apr 28 Invited Speaker. Determining the therapeutic effectiveness of WBV for treatment of altered body composition after SCI.Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Podium presentation at the Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
2012 Apr 28 Invited Speaker. Introduction to the NeuroRecovery Network (NRN): Developments in Ontario, Ontario Spinal Cord Injury Research Network Meeting. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Craven BC. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting April 27-29, 2012.   
2012 Apr Collaborator. Understanding the neurogenic bowel experience following spinal cord injury from the perspective of stakeholders. Ontario Neurotrauma Foundation. Niagara Falls, Ontario, Canada. Presenter(s): Burns AS (presenter), St-Germain D, Connolly M, Hitzig SL, Guindon A, Delparte J, Craven BC, Wolfe D. Ontario Spinal Cord Injury Research Network (OSCIRN) Meeting from April 27-29, 2012.   
Media Highlights of Research Activities   
2015 Dec Responsible Author for featured work. SCI Conference: A Remarkable Experience. NeuroMatters Newsletter: Winter 2015, Issue 25:. Toronto, Ontario, Canada. This article highlighted the 6th National Spinal Cord Injury Conference that was held in Toronto Oct 2nd - 4th, 2014 and illustrates the impact and experience the conference had on attendees and individuals living with a spinal cord injury. Available from: http://onf.org/system/attachments/300/original/Issue25Jan6.pdf.   
2014 Sep Responsible Author for featured work. Being a Research Participant. NeuroMatters Newsletter: Fall 2014, Issue 24. Toronto, Ontario, Canada. This issue showcased the central recruitment pilot study led by Dr. B. Catharine Craven and Professor Molly Verrier at Toronto Rehab’s Lyndhurst Centre. The article illustrates the impact of this pilot study, which assesses the feasibility of developing a centralized recruitment process to reduce the burden of research participation on participants, and discusses the future steps. Available from: http://onf.org/system/attachments/286/original/NeuroMatters Issue 24web.pdf.   
2013 Mar Responsible Author for featured work. Preventing Heart Attacks Before They Happen. NeuroMatters Newsletter: Spring 2013, Issue 21. Toronto, Ontario, Canada. This issue featured Dr. Masae Miyatani’s post-doctoral work on defining the associations between arterial stiffness and coronary artery disease risk factors in individuals with spinal cord injury. It highlights the current knowledge gap in this area and draws attention to the impact and importance of her work. Available from: http://onf.org/system/attachments/161/original/NeuroMattersIssue Spring 2013.pdf.   
4. LOCAL   
Invited Lectures and Presentations   
2017 Jan 18 Invited Speaker. Work Life Balance. UHN Research. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2016 Nov 8 Invited Lecturer. Epidemiology of Spinal Cord Injury (SCI). University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC, Furlan JC, Noonan VK.   
2016 Nov 1 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. UHN-Research Executive Committee. Toronto, Ontario, Canada.   
2016 Oct 26 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TREC Finance Committee. Toronto, Ontario, Canada.   
2016 Sep 30 Speaker. Centralized Recruitment: Moving from Theorectical Framework to Implementation. TRI Leadership Forum. Toronto, Ontario, Canada.   
2016 May 6 Senior Responsible Author. TRI Robotic Opportunities. Toronto Rehab Foundation. Toronto, Ontario, Canada. Presenter(s): Craven BC. Overview of Opportunities to fund Robotic Innovations at Toronto Rehab.   
2016 Apr 13 Speaker. Centralized Recruitment: Moving from Theoretical Framework to Implementation. UHN: Toronto Rehab Research Advisory Committee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Jones S, Brisbois L.   
2016 Feb 20 Invited Lecturer. Osteoporosis and Sublesional Osteoporosis. CAPMR. Toronto, Ontario, Canada. Presenter(s): Craven BC. A 90 minute review of Osteoporosis and Sublesional Osteoporosis management including identification of patients with high fracture risk who require therapy, selection of appropriate osteoporosis therapy, determination of therapy effectiveness and fall risk assessment and prevention guidelines.   
2015 Dec 2 Presenter. Urinary Tract Infection Quality Improvement Strategies. Toronto Rehabilitation Institute - UHN - Spinal Cord Rehabilitation Program. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
2015 Nov 5 Invited Facilitator. Gail Aguillon, Director Adult Rehabilitation Glenrose Rehab Hospital. Joanne Zee. Toronto, Ontario, Canada. Presenter(s): Craven BC, Popovic M. Tour of visiting administrator of Clinical and Research Activities.   
2015 Mar 23 Speaker. The 5 W’s of the Rick Hansen SCI Registry 2.0 (who, what, where, when and why). Toronto Rehab’s Spinal Cord Rehabilitation Program’s Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven, BC, Farahani F. Flett H, Musselman K, Guy K. (Continuing Education).   
2014 May 29 Invited Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement and Research Participation in Spinal Cord Rehab. Toronto Rehabilitation Institute: SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): BC Craven, L Brisbois. (Continuing Education).   
2014 May 29 Speaker. Central Recruitment: Strategies for Optimizing Patient Engagement. SCRP Best Practice Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois L.   
2013 Jan 29 Invited Speaker. Panel Discussion: Neurological Disorders (Stroke, Dementia, and Spinal Cord Injuries) and their Effects on Bone Health. Centre of Excellence in Skeletal Health Assessment (CESHA). Toronto, Ontario, Canada. Centre of Excellence in Skeletal Health Assessment (CESHA): Annual Outreach Education Evening, Toronto, ON, Canada, January 29, 2013. (Continuing Education).   
2012 Nov 9 Presenter. Physiatry Academic Half Day: How to Write and Abstract. Department of Medicine University of Toronto. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Presented Abstracts   
2016 May 2 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infection (UTI) among inpatients during Spinal Cord Injury (SCI) rehabilitation-Innovations influencing rehabilitation. GTA Rehab Network. Toronto, Ontario, Canada. Alavinia M, Omidvar M, Devji T, Farahani F, Zimcik H, Zee J, Bayley M, Craven BC. (Trainee Presentation).   
2015 Nov 18 Senior Responsible Author. Surgical Management and Rehabilitation of the Elderly with Traumatic Cervical Spinal Cord Injury: A Cost-Utility Analysis. UHN-Toronto Rehab Research Day. Toronto, Ontario. Furlan JC, Fehlings MG, Craven BC. (Poster). (Trainee Presentation).   
2015 Nov 18 Presenter. The Rick Hansen Spinal Cord Injury Registry: Consent and Retention Rates 2010-2015. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Patsakos EM, Farahani F, Brisbois L, Flett HM, Craven BC.   
2015 Nov 18 Senior Responsible Author. Quality Improvement Strategies to Eliminate Urinary Tract Infections During Inpatient SCI Rehabilitation. UHN-Toronto Rehab Research Day. Toronto, Ontario, Canada. Presenter(s): Alavinia M, Zimcik H, Zee J, Bayley M, Craven BC. (Presentation to Patients/Public).   
Invited Meeting   
2015 Mar 23 Attendee. RHSCIR/Walking Measures Best Practice Forum. UHN-Toronto Rehab. Toronto, Ontario, Canada.   
2014 Mar 27 Attendee. Coaching for High Performance Workshop. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada.   
2014 Jan 31 Invited Speaker. Centralized Recruitment Strategies for Optimizing Patient Engagement & Research Participation. Toronto Rehabilitation Institute Leadership Forum. Toronto, Ontario, Canada. Presenter(s): Craven BC, Zeman K, Brisbois L.   
Invited Meetings   
2012 Nov 7 Invited Speaker. UHN REB Retreat. UHN Research Ethics Board (REB). Toronto, Ontario, Canada. Presenter(s): Craven BC. Presentation on the Toronto Rehab central recruitment process and data on the research participant pool.   
2012 Apr 24 Invited Speaker. Peer Mentor Meeting: Implementing the Osteoporosis Canada Guidelines: Clinical Pearls for Physiatrists. Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Craven BC.   
Invited Panel Discussion   
2017 Jan 18 Panel Member. TRI Mentorship Series: Work-Life Balance. Susan Jaglal, Toronto Rehab Research Institute. Toronto, Ontario, Canada. Presenter(s): McGilton K, Alter D, Craven BC, Rochon E, Kontos P. Advice for Medical and Research regarding maintaining a work-life balance.   
Poster   
2016 Nov 17 Collaborator. Quality Reporting of Carotid Intima-media Thickness Methodology: Current State of the Science in the Field of Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Hoskin J, Miyatani M, Craven BC. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. Establishing Indicators for Optimal Spinal Cord Injury Care-Phase I: Prioritization of Rehabilitation Domains. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Alavinia SM, Craven BC, Flett H, Farahani F, Hitzig SL, Bayley M. (Trainee Presentation).   
2016 Nov 17 Senior Responsible Author. pQCT Derived Bone Indicator Discriminates Between AIS Categories Among Individuals With Chronic SCI. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Cervinka T, Giangregorio LM, Craven BC. (Trainee Presentation).   
2016 Nov 17 Collaborator. Perspectives on Personalized Adapted Locomotor Training from Canadian Participants with Sub-acute Spinal Cord Injury. UHN-Toronto Rehabilitation Institute. Toronto, Ontario, Canada. Presenter(s): Singh H, Shah M, Flett H, Craven BC, Verrier M, Musselman K. (Trainee Presentation).   
2014 Dec 1 Collaborator. Trunk Strength and Function in Individuals with Non-Traumatic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Gabison S, Verrier M, Craven BC, Nadeau S, Duclos C, Gagnon D, Roy A. Abstract #52. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Exploring the Associations between Arterial Stiffness and Spinal Cord Impairment. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Szeto M, Moore CD, Oh PI, McGillivray C, Craven BC. Abstract #58. (Trainee Presentation).   
2014 Dec 1 Coauthor. Determinants of Calf Muscle Cross-Sectional Area and Density after Chronic Spinal Cord Injury. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Craven BC, Thabane L, Laing AC, Frank-Wilson A, Kontulainen SA, Papaioannou A, Adachi JD, Giangregorio LM. Abstract #59. (Trainee Presentation).   
2014 Dec 1 Senior Responsible Author. Fragility Fractures after Spinal Cord Injury: Insights from the Bone Quality in Individuals with Chronic SCI Study. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lynch CL, Giangregorio L, Adachi JD, Papaioannou A, Thabane L, Craven BC. Abstract #61. (Trainee Presentation).   
2014 Dec 1 Collaborator. Use of diffusion tensor imaging for diagnosing and characterizing complex TBI populations. Toronto Rehab’s 10th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Bradbury C, Budsin B, Sharma B, Mikulis D, Corbie J, Hitzig S, Craven BC, Green R. Abstract #78.   
2013 Nov 26 Senior Responsible Author. Metabolic Syndrome (MetS) Risk Factors are Insufficient to Detect Elevated Arterial Stiffness among People with Chronic Spinal Cord Injury (SCI). Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh PI, Craven BC. (Trainee Presentation).   
2013 Nov 26 Senior Responsible Author. Preliminary Face Validity of Target SCIM III Median Values for Prediction of Functional Outcomes after Traumatic SCI. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Farahani F, Verrier MC, Flett H, Burns A, Craven BC.   
2013 Nov 26 Senior Responsible Author. Implications of Spinal Cord Injury Research in Life Care Planning. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Hadi S, Craven BC.   
2013 Nov 26 Coauthor. Missed Acute Care Diagnosis of Traumatic Brain Injury in Patients with Spinal Cord Injury: Frequency and Risk Factors. Toronto Rehab’s 9th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Sharma B, Bradbury CL, Corbie J, Hitzig SL, McGillivray C, Craven C, Mikulis D, Green R. (Trainee Presentation).   
2013 Jan 25 Senior Responsible Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Current Concepts in Balance, Fitness and Mobility: Perspectives on Intensity in Rehabilitation, University Health Network. Toronto, Ontario, Canada. Presenter(s): Szeto M, Delparte JJ, Giangregorio LM, Popovic MR, Craven BC.   
2012 Nov 23 Principal Author. Adverse Events During Whole Body Vibration among Men with Paraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Szeto M, Delparte JJ, Giangregorio LM, Popovic MR.   
2012 Nov 23 Senior Responsible Author. Cardiovascular Fitness Testing Considerations for Persons with Tetraplegia. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Moore C, Miyatani M, Oh P, Craven BC. (Trainee Presentation).   
2012 Nov 23 Senior Responsible Author. Associations Between Arterial Stiffness & Heart Disease Risk Factors In People with Chronic Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Miyatani M, Moore C, Masani K, Oh PI, Popovic MR, Craven BC. (Trainee Presentation).   
2012 Nov 23 Principal Author. Exploring the Feasibility of Central Recruitment for Subacute SCI Patients. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Craven BC, Brisbois LM, Verrier MC.   
2012 Nov 23 Coauthor. Associations Between Bone Density and Geometry and Prevalent Fractures Among Individuals with Spinal Cord Injury. Toronto Rehab’s 8th Annual Research Day. Toronto, Ontario, Canada. Presenter(s): Lala D, Craven BC, Thabane L, Papaioannou A, Adachi JD, Popovic M, Giangregorio L. (Trainee Presentation).   
2012 Feb 27 Coauthor. The Development of an On-line Quality of Life Outcomes Tool-Kit for Spinal Cord Injury Professionals. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Hitzig SL, Balioussis C, Craven BC, Panjwani A, Routhier F, Noreau L.   
2012 Feb 27 Senior Responsible Author. Central Recruitment Process: Exploring Feasibility and Scalability for SCI Research Studies. GTA Rehab Network Best Practices Day 2012: Building the Case for Rehab: Unlocking the Evidence, GTA Rehab Network. Toronto, Ontario, Canada. Presenter(s): Verrier MC, Carson JR, Brisbois L, Craven BC.   
Presentation   
2015 May 5 Presenter. Spinal Cord Rehab Program. Toronto, Ontario, Canada. Presenter(s): Zee J, Flett H, Craven, BC. Articulation of the Program and Health Services Needs of a High Reliability Organization.- For UHN CEO Peter Pisters.   
5. INTER PROVINCIAL ONTARIO/QUEBEC   
Consensus Meeting   
2015 Dec 9 Co-Lead (Craven, Gagnon). ONF-REPAR Phase III: SCI Strategic Planning Consensus Meeting. Toronto, Ontario, Canada. Presenter(s): Craven BC, Gagnon D, Jaglal S, Routhier F, Hitzig S, Maltais D, Wolfe D, Athanasopoulous P. Consensus Meeting to articulate the endocrine metabolic disease risk reduction strategy for the ONF-Repar funded Spinal Cord Injury Inter provincial working group.   
6. OTHER   
Presented and Published Abstracts   
2015 Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada?   
  
Publication Details:   
Gagnon D, Verrier MC, Duclos C, Nadeau S, Craven BC. Do performance-based wheelchair propulsion test detect changes among manual wheelchair users with spinal cord injury during publicly-funded inpatient rehabilitation in Canada? Arch Phys Med Rehabil. 2015;(2014 Dec17). D-13-00909. Coauthor or Collaborator.   
G. Teaching and Design   
1. INNOVATIONS AND DEVELOPMENT IN TEACHING AND EDUCATION   
2016 Nov - 2016 Nov 1 Creating a Powerful Speaking Style, Postgraduate MD, Faculty of Medicine, Dept of Medicine, Physical Medicine and Rehabilitation   
H. Research Supervision   
1. PRIMARY OR CO-SUPERVISION   
Undergraduate Education   
2014 May - 2014 Sep Primary Supervisor. B. Sc. Piramilan Thuraisingam. Supervisee Position: Master of Physical Therapy, Supervisee Institution: University of Western Ontario. Awards: Enrollment in Ross University (Dominica)   
♣ Dr. G. E. Hall Scholarship, The University of Western Ontario   
♣ Queen Elizabeth II Aiming for the Top Scholarship, The University of Western Ontario   
♣ Four Year Continuing Admission Scholarship, The University of Western Ontario   
♣ Dean’s Honor List, The University of Western Ontario. Supervisor(s): Craven BC. Completed 2012.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Paul Wolfe. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Co-Supervisor. B. Sc. Amber Knott. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2013 Sep - 2014 Aug Primary Supervisor. B. Sc. Zachary Brown. Supervisee Institution: University of Waterloo. RHSCIR.   
2013 Jun - 2015 Jun Primary Supervisor. B. Sc. Eleni Patsakos. Supervisee Institution: University of Toronto. Rick Hansen Spinal Cord Injury Registry (RHSCIR).   
2013 Jun - 2014 Sep Primary Supervisor. B. Sc. Amit Chopra. Supervisee Institution: University of Toronto. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study., Completed 2014.   
2013 Jan - 2014 Apr Co-Supervisor. B. Sc. Jenny Quach. Supervisee Institution: University of Waterloo. NeuroRecovery Network (NRN) Development: Locomotor Training Program. Collaborator(s): Verrier MC.   
2012 May - 2012 Aug Primary Supervisor. B. Sc. Claire Tardif. Supervisee Institution: McGill University. Increasing the efficiency and diagnostic yield of lower extremity bone density assessment among patients with neurological impairment: A comparison of new and existing technology. Completed 2012.   
Graduate Education   
2017 Jun - 2020 May Co-Supervisor. PhD. Jawad Christie, Rehabilitation Science, Health Services and Policy Research. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Fractures and Aging in the Chronic Spinal Cord Population. Supervisor(s): Craven BC, Jaglal S.   
2015 Jul - 2017 Jun Primary Supervisor. PhD. Sharon Gabison. Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Assessment of Ischial Tissue Texture. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Verrier M. Collaborator(s): Craven BC.   
2011 Jan - 2012 Dec Primary Supervisor. Postdoctoral Fellow- Mentor-Mentee Training Award. Sander L. Hitzig. Supervisee Position: Senior Research Associate, Supervisee Institution: University of Toronto. Capacity building and economic analysis related to secondary health complications after spinal cord injury. Awards: Ontario Neurotrauma Foundation (ONF) Mentor-Mentee Training Award. Collaborator(s): Mittmann N. Completed 2012.   
Postgraduate MD   
2015 Jul - present Primary Supervisor. Core Program Physiatry. Rebecca Titman. Supervisee Position: PGY2 Physiatry Resident, Supervisee Institution: University of Toronto. Screening for mood disorders during inpatient spinal cord injury rehabilitation.   
2013 Dec - 2014 Apr Primary Supervisor. Clinical Fellow. Rohit Bhide. Supervisee Position: Clinical Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Impact of Service Interruptions on Inpatient Length of Stay.   
2011 Jul - 2016 Jun Primary Supervisor. Core Program Physiatry. Sivakumar Gulasingam. Supervisee Position: PGY5 Physiatry Resident, Supervisee Institution: University of Toronto. Clinical Utility of Botulinum Neurotoxin A (BoNTA) Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesicular BoNTA for Neurogenic Detrusor Overactivity. Collaborator(s): Hassouna M.   
Postdoctoral Research Fellow (PhD)   
2017 Jan - 2019 Dec Primary Supervisor. Year I. Brian Chan. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Economic Evaluation of Secondary Health Conditions and New Technology. Awards: Ontario Neurotrauma Foundation Mentor Mentee Training Award. Supervisor(s): Craven BC, Woodchis W.   
2015 Nov - 2017 Oct Primary Supervisor. Year I. Tomas Cervinka. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. P-QCT, Bone Quality and Neurological Impairment. Awards: Spinal Cord Injury Ontario Fellowship   
Osteoporosis Canada Tim Murray Training Award (1500 CAD)   
Canadian Musculoskeletal Conference Young Investigators Day Poster Competition (100 CAD).   
2015 Jul - 2017 Jun Primary Supervisor. Year I. Mohammad Alavinia. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University Health Network, Toronto Rehab Research Institute, NET team. Rehab Care Indicators. Supervisor(s): M Bayley.   
2013 Oct - 2014 Oct Primary Supervisor. Chelsea Pelletier. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Body Composition in Spinal Cord Injury and Related Multimorbidity.   
2013 Oct - 2014 Oct Primary Supervisor. Sander Hitzig. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute.   
2012 Jan - 2014 Apr Primary Supervisor. Masae Miyatani. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: Toronto Rehabilitation Institute. Novel Protocol for Detection of Asymptomatic Heart Disease After Spinal Cord Injury. Awards: Craig H. Neilsen Foundation Postdoctoral Fellowship (2012-2014) $135,000 (US).   
Clinical Research Fellow (MD)   
2015 Jul - 2016 Jun Primary Supervisor. PGY7. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - Rumsey & Lyndhurst Sites of TRI’ Sunnybrook. Awards: November 2015 ORT Conference Travel Awards Program   
April 2016 American Academy of Neurology Travel Award   
May 2016 64th Annual CAPMR Meeting: 2nd Place Case Report Category   
June 2016 Wings for Life Foundation Fellowship. Supervisor(s): Craven BC Collaborator(s): Robinson L, Bruno T.   
2014 Sep - 2015 Jul Co-Supervisor. PGY6. Julio Furlan, Medical Science. Supervisee Institution: University Health Network - TWH and Toronto Rehabilitation Institute; Sunnybrook. Supervisor(s): Craven BC, Tang-Wai D.   
2. OTHER SUPERVISION   
Graduate Education   
Thesis Committee Member   
2009 Jul - present PhD. Andresa Marinho, Rehabilitation Science. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Aquatic Body Weight Support as a Novel Approach for Gait Training after Incomplete Spinal Cord Injury (SCI). Awards: CIHR-Vanier Canada Graduate Scholarship Program ($50,000 annum). Collaborator(s): Verrier MM, Popovic MR, McIlroy W, Masani K.   
2017 Jun - 2019 May MSc. John Shepherd. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Approaches to Using Primary Care EMR Data to Study Community - Living Persons with Spinal Cord Injury in Canada. Collaborator(s): Moineddin, R, Tu K.   
2017 Jan - 2020 Jan PhD. Janelle Unger, Rehabilitation Science, Rehabilitation Sciences Institute. Supervisee Position: University of Toronto/ Graduate Department of Rehabilitation Sciences. Balance Training for people with Spinal Cord Injury. Supervisor(s): Musselman K. Collaborator(s): Craven BC, Mansfield A.   
2016 Dec - 2019 Dec PhD. Hardeep Singh. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Administrator and Allied Health Prospective on Falls in SCI Rehabilitation. Supervisor(s): Musselman KE. Collaborator(s): Silver M, Craven BC, Jaglal S.   
2015 Sep - 2018 May PhD. Rasha El-Kotob. Supervisee Institution: University of Waterloo. TBD. Supervisor(s): Giangregorio L, Craven BC.   
2015 Jan - 2017 Dec PhD. Gayathiri Jeyathevan, Health Policy, Management and Evaluation. Supervisee Institution: University of Toronto. Awards: Craig H. Neilson Foundation. Supervisor(s): Susan Jaglal. Collaborator(s): Craven BC, Cameron J.   
2015 Jan - 2017 Jun PhD. Teresa Valenzano, Rehabilitation Science. Supervisee Institution: University of Toronto. Respiratory Impairment and Swallowing Dysfunction in Spinal Disorders Research Proposal. Supervisor(s): Catriona Steele. Collaborator(s): Brooks D, Craven BC.   
2013 Jan - 2015 Jan MSc. Rasha El-Kotob. Supervisee Institution: University of Toronto/Graduate Department of Rehabilitation Science. Assessing Heart Rate Variability as a Surrogate Measure of Cardiac Autonomic Function in Spinal Cord Injury. Collaborator(s): Verrier M, Oh P, Ditor D, Mathur S.   
2012 Jan - 2014 May MSc. Cameron Moore. Supervisee Institution: University of Waterloo/ Department of Kinesiology. Muscle Quantity and Quality after Chronic Spinal Cord Injury: An Investigation of Calf- Muscle Cross-Sectional Area and Density After Long Term Paralysis. Awards: Queen Elizabeth II -Graduate Scholarship in Science and Technology   
Awarded January 2013   
  
NET Team Excellence Award 2013, Toronto Rehab’s 9th Annual Research Day   
Awarded November 2013. Collaborator(s): Giangregorio LM, Laing A. Completed 2014.   
2009 Jul - 2012 Feb MSc. Kristina Guy. Supervisee Position: Professional Practice Leader Physiotherapy, Supervisee Institution: Toronto Rehabiliation Institute - UHN, Brain and Spinal Cord Program. Clinical Measures of Walking Ability using the Gait Rite in Motor Incomplete SCI. Awards: Masters. Collaborator(s): Verrier MC, Popovic MR, McIlroy W. Completed 2012.   
2008 Jul - 2012 May PhD. Sara Guilcher. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: St. Michael’s Hospital. An Investigation of the Journey of Care Related to Secondary Health Conditions for Community-Dwelling Persons with Spinal Cord Injury. Awards: Ontario Student Opportunity Trust Funds 2006-2007 $13,000   
Ontario Training Collaborative Program in Health service and Policy Research 2007-2009 ($13,000)   
Graduate studentships in Health Services Research and Spinal Cord Ontario Neurotrauma Foundation 2007-2011 ($10,000/year renewable)   
Enid Walker Award Women’s College Research Institute 2007-2011 ($25,000/year renewable)   
Social Sciences and Humanities Research Council of Canada 2010 Community Research Alliamce ($10,000). Collaborator(s): Jaglal SB, Lemieux-Charles L, McColl MA, Casciaro T. Completed 2012.   
Ad Hoc Advisor   
2009 Jul - 2012 Jul PhD. Arif Jetha. Supervisee Position: Graduate Student, Supervisee Institution: University of Toronto. Employment in Kids with Disabilities.   
Postgraduate MD   
Resident Research Supervisor   
2010 - present Core Program Physiatry. Amanda Mayo. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Fractures among Boys with Duchenne Muscular Dystrophy: Frequency, Skeletal Distribution and Association(s) with Steroid Therapy and Bone Mass. Collaborator(s): Biggar D, McAdam L.   
2014 Nov - 2014 Dec Core Program PGY4 Physiatry. Sivakumar Gulasingam. Supervisee Position: Physiatrist, Supervisee Institution: UHN-Toronto Rehab. Botulinum Neuorotoxin a - Antibody in Secondary Treatment Failure of Chronic Spinal Cord Injury Patients receiving Intravesical Botulinum Neurotoxin A for Neurogenic Detrusor Overactivity. Supervisor(s): Craven BC. Collaborator(s): Hassouna M, Carr L. Completed 2014.   
2012 Apr - 2014 Oct Core Program Physiatry. Christian Fortin. Supervisee Position: PGY-5 Physiatry Resident, Supervisee Institution: University of Toronto. Rehabilitation outcomes of patients with metastatic extradural spinal cord compression. Collaborator(s): Jaglal SB, Voth J. Completed 2014.   
2011 - 2014 Oct Core Program Physiatry. Derry Dance. Supervisee Position: PGY5 Physiatry Resident. Exploring the Associations between Daily Blood Pressure Fluctuations & Cardiovascular Risk Among Patients with Motor Complete Spinal Cord Injury: A Pilot Study. Collaborator(s): Ditor D, Hassouna M, Campbell K. Completed 2014.   
Postdoctoral Research Fellow (PhD)   
Secondary Supervisor   
2013 Dec - 2015 Jan Year I. Cheryl Lynch. Supervisee Position: Postdoctoral Fellow, Supervisee Institution: University of Waterloo/UHN-Toronto Rehabilitation Institute. Limitation of CAROC and FRAX for predicting fracture after SCI. Supervisor(s): LM Giangregorio. Collaborator(s): M Popovic.   
Other   
Volunteer Supervisor   
2014 Jan - 2014 Oct Mir Hatef Shojaei. Supervisee Position: Volunteer, Supervisee Institution: UHN-Toronto Rehabilitation Institute. Supervisor(s): Craven BC. Collaborator(s): Miyatani M.

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**Glenohumeral Joint Biomechanics, Pain and Stroke Pattern Variability During Pediatric Manual Wheelchair Mobilty: A Longitudinal Evaluation**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***Brooke Slavens, PhD, MS***  
University of Wisconsin-Milwaukee

**CV:**  
A. Personal Statement   
I have extensive expertise in biomechanics of wheelchair mobility, human movement, and outcomes assessment. This is demonstrated through my position as the Director of the Movement Analysis for Biomedical Innovation and Technology (Mobility) Laboratory at the University of Wisconsin-Milwaukee (UWM). I have a strong background in quantitative rehabilitation engineering, with an emphasis on biomechanics of manual wheelchair mobility in individuals with spinal cord injury. As a prior NIDRR ARRT postdoctoral fellow at Marquette University in the Orthopaedic and Rehabilitation Engineering Center (OREC), I gained experience as an independent research engineer focusing on clinical motion analysis and pediatric mobility. I have learned how to integrate my biomechanical engineering skills with occupational therapy in my current position as an Associate Professor of Occupational Science & Technology and Biomedical Engineering at UWM. My recent position as a NIH K12 scholar with Northwestern University enabled me to further my expertise in quantitative rehabilitation engineering and assessment of pediatric wheelchair mobility. As PI at UWM of NIH, NIDILRR, and NSF funded grants, I have considerable experience conducting multi-center studies investigating manual wheelchair mobility and assistive device usage across the lifespan from children to adults. I have published over 20 peer-reviewed manuscripts resulting from my research on the biomechanics of mobility. I have an existing relationship in collaborating with Shriners Hospital for Children through my scientific staff appointment and look forward to a continued partnership.   
  
The following publications highlight my experience and qualifications on manual wheelchair mobility research:   
1. Slavens, B.A., Schnorenberg, Aurit, C.M., A.J., Tarima, S., Vogel, L.C., and Harris, G.F.: Biomechanics of Pediatric Manual Wheelchair Mobility. Frontiers in Bioengineering and Biotechnology–Biomechanics. Special Issue Research Topic: Wheeled Mobility Biomechanics, 3: 137, 2015.   
2. Slavens, B.A., Schnorenberg, A.J., Aurit, C.M., Graf, A., Krzak, J., Reiners, K., Vogel, L.C., and Harris, G.F.: Evaluation of Pediatric Manual Wheelchair Mobility using Advanced Biomechanical Methods. BioMed Research International: Special Issue on Wheeled Mobility, vol. 2015, Article ID 634768, 11 pages, 2015.   
3. Schnorenberg, A.J., Slavens, B.A., Wang, M., Vogel, L., Smith, P., Harris, G.F.: Biomechanical Model for Evaluation of Pediatric Upper Extremity Joint Dynamics during Wheelchair Mobility. Journal of Biomechanics, 47(1): 269-276, 2014.   
  
  
  
B. Positions and Honors   
  
Positions and Employment   
2008- Authorized Research Co-Investigator, Zablocki VA Medical Center, Milwaukee, WI   
2008- Scientific Staff, Shriners Hospitals For Children – Chicago, Chicago, IL   
2010- Principal Investigator, Rehabilitation Research Design & Disability (R2D2) Center, University of Wisconsin-Milwaukee, Milwaukee, WI   
2010-2016 Assistant Professor, Department of Occupational Science & Technology, University of Wisconsin-Milwaukee, Milwaukee, WI   
2011-2016 Assistant Adjunct Professor, Clinical and Translational Science Institute (CTSI), Medical College of Wisconsin, Milwaukee, WI   
2011-2016 Assistant Professor, Orthopaedic and Rehabilitation Engineering Center (OREC), Marquette University and The Medical College of Wisconsin, Milwaukee, WI   
2015-2016 Assistant Adjunct Professor, Department of Orthopaedic Surgery, Medical College of Wisconsin, Milwaukee, WI   
2016- Associate Professor, Department of Occupational Science & Technology, University of Wisconsin-Milwaukee, Milwaukee, WI   
2016- Associate Adjunct Professor, Clinical and Translational Science Institute (CTSI), Medical College of Wisconsin, Milwaukee, WI   
2016- Associate Professor, Orthopaedic and Rehabilitation Engineering Center (OREC), Marquette University and The Medical College of Wisconsin, Milwaukee, WI   
2016- Associate Adjunct Professor, Department of Orthopaedic Surgery, Medical College of Wisconsin, Milwaukee, WI   
2017- Associate Professor, Department of Biomedical Engineering, University of Wisconsin-Milwaukee, Milwaukee, WI   
  
Other Experience and Professional Memberships   
2004- Member, Institute of Electrical and Electronics Engineers (IEEE), Engineering in Medicine and Biology Society   
2004- Member, Gait and Clinical Motion Analysis Society   
2004- Member, Rehabilitation Engineering and Assistive Technology Society of North America   
2011- Member, American Society of Biomechanics   
2013- Peer review committee, National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) Field Initiated Projects, ad hoc reviewer   
  
Honors and Awards   
2012 Dean’s Research Award, College of Health Sciences, University of Wisconsin-Milwaukee,   
Milwaukee, WI.   
2014 NIH National Center for Simulation in Rehabilitation Research (NCSRR) Travel Award to   
attend Advanced User’s Group Meeting, Stanford University, Palo Alto, CA.   
  
C. Contribution to Science   
  
1. Upper Extremity Inverse Dynamics Biomechanical Modeling: My most important contribution to science has been the development of upper extremity inverse dynamics modeling methods for quantitative rehabilitation. I have developed several custom advanced models of the upper extremity (thorax, shoulder complex, elbow, and wrist) to investigate 3-D joint biomechanics for evaluation of manual wheelchair mobility and assistive device use. These models can be applied to children or adults of various disabilities for wheelchair mobility, walker mobility or Lofstrand crutch-assisted gait.   
Fritz, J.M., Inawat, R.R., Slavens, B.A., McGuire, J.R., Ziegler, D.W., Tarima, S.S., Grindel, S.I., and Harris, G.F.: Assessment of Kinematics and Electromyography Following Arthroscopic Single-Tendon Rotator Cuff Repair. PM & R: the journal of injury, function, and rehabilitation, 1-13, 2016.   
Slavens, B.A., Bhagchandani, N., Wang, M., Smith, P.A., and Harris, G.F.: An Upper Extremity Inverse Dynamics Model for Pediatric Lofstrand Crutch-Assisted Gait. Journal of Biomechanics, 44:2162-2167, 2011.   
  
2. Pediatric Mobility: I have developed advanced modeling methods for assessment of pediatric mobility. Specifically, we have designed ways to assess pathologic pediatric mobility. I have applied these methods to children with spinal cord injury, cerebral palsy, myelomeningocele and osteogenesis imperfecta. These methods are used to improve rehabilitation planning and therapeutic interventions. I have also investigated pain and functional outcomes in children using assistive devices.   
Slavens, B.A., Schnorenberg, Aurit, C.M., A.J., Tarima, S., Vogel, L.C., and Harris, G.F.: Biomechanics Of Pediatric Manual Wheelchair Mobility. Frontiers in Bioengineering and Biotechnology–Biomechanics. Special Issue Research Topic: Wheeled Mobility Biomechanics, 3: 137, 2015.   
Slavens, B.A., Schnorenberg, A.J., Aurit, C.M., Graf, A., Krzak, J., Reiners, K., Vogel, L.C., and Harris, G.F.: Evaluation of Pediatric Manual Wheelchair Mobility using Advanced Biomechanical Methods. BioMed Research International: Special Issue on Wheeled Mobility, 2014.   
Schnorenberg, A.J., Slavens, B.A., Wang, M., Vogel, L., Smith, P., and Harris, G.F.: Biomechanical Model for Evaluation of Pediatric Upper Extremity Joint Dynamics during Wheelchair Mobility. Journal of Biomechanics, 47 (1): 269-276, 2014.   
  
  
3. Assessment of Amputee Gait Using Mobile Sensor Technology: My team has also used mobile sensor technology to assess gait and mobility of amputees. Current clinical methods are based on observation alone. Our contributions have provided a quantitative means for prosthetic fitting and alignment.   
Silver-Thorn, B., Kempfer, J., Schnorenberg, A.J., and Slavens, B.A.: Use of a Dynamic Balance System to Quantify Postural Steadiness and Stability of Lower Limb Amputees. Journal of Prosthetics and Orthotics. In Press.   
Fiedler, G., Slavens, B.A., O’Conner, K.M., Smith, R.O., and Hafner, B.: Effects of physical exertion on trans-tibial prosthesis users’ ability to accommodate alignment perturbations. Prosthetics and Orthotics International, 40(1) 75-82, 2016.   
Fiedler, G., Slavens, B.A., Smith, R.O., Briggs, D., and Hafner, B. J.: Criterion and Construct Validity of Prosthesis-Integrated Measurement of Joint Moment Data in Persons with trans-tibial Amputation. Journal of Applied Biomechanics, 30 (3): 431-438, 2014.   
Fiedler, G., Slavens, B.A., Hafner, B.J., Briggs, D., and Smith, R.O.: Leg Laterality Differences in Persons with Bilateral Transtibial Amputation: A Pilot Study using Prosthesis-Integrated Load Cells. Journal of Prosthetics & Orthotics, 25 (4): 168-176, 2013.   
  
Full list of publications available on My NCBI: http://www.ncbi.nlm.nih.gov/sites/myncbi/1Ns\_otVito6/bibliography/40590454/public/   
  
  
  
D. Research Support   
  
Ongoing Research Support   
  
H133P140023/90AR5022-01-00 Harris (PI) 10/1/2014-9/30/2019   
U. S. Department of Education, National Institute on Disability and Rehabilitation Research (NIDRR); Department of Health and Human Services, Administration for Community Living (ACL)   
Advanced Rehabilitation Research Training (ARRT) in Pediatric Mobility for Physicians and Engineers   
The goal of this project is to train engineers and clinicians in pediatric mobility using quantitative rehabilitation methods.   
Role: Junior mentor in the research area of assistive devices and robotics   
  
The Medical College of Wisconsin Lee (PI) 4/15/2017-6/30/2018   
Department of Physical Medicine and Rehabilitation, Research Administration Committee Grant Program   
Biomechanical Analysis of Wheelchair Athletes with Paraplegia during CrossFit Exercises   
The goal of the proposed study is to evaluate upper extremity joint motions of wheelchair users performing CrossFit exercises.   
Role: Co-PI   
  
H133E10007 Harris (PI) 10/1/2010-9/30/2017   
U. S. Department of Education   
National Institute on Disability and Rehabilitation Research (NIDRR)   
Rehabilitation Engineering Research Center on Technologies for Children with Orthopedic Disabilities   
The goal of this RERC is develop a national center with a focus on advanced engineering research and development based on innovative technologies addressing children with orthopedic disabilities and to transfer and commercialize these efforts to offer new tools, better technologies, and improved evidence-based treatment strategies. The goal of “R4: Advanced Mobility Modeling” is to investigate advanced mobility modeling to improve function and longer term transitional care of children with severe orthopedic disabilities.   
Role: Co-PI   
  
The Medical College of Wisconsin Best (PI) 9/1/2015-8/30/2017   
Department of Orthopaedic Surgery, Intramural Grant Program   
Evaluation of Rotator Cuff Function, Structure, and Integrity Pre-and Post-Shoulder Arthroplasty in Patients with Avascular Necrosis   
The goal of this study is to determine a novel rehabilitation paradigm combining motion analysis and MRI techniques designed for younger adults with avascular necrosis undergoing shoulder arthroplasty.   
Role: Co-PI   
  
The Medical College of Wisconsin Grindel (PI) 9/1/2015-8/30/2017   
Department of Orthopaedic Surgery, Intramural Grant Program   
Pre-Operative Versus Post-Operative Kinematic And Muscle Activation Assessment of the Upper Extremity Following Rotator Cuff Repair   
The goal of this study is to identify compensatory upper extremity joint motions and muscle recruitment patterns used before repair and during post-operative recovery employing a novel combination of kinematic analyses, EMG, and upper extremity forward simulations.   
Role: Co-PI   
  
2R44HD071653-02 Daigle (PI) 8/1/2014-7/31/2017   
Eunice Kennedy Shriver National Institute Of Child Health & Human Development (NICHD) of the National Institutes of Health (NIH)   
IntelliWheels: The Automatic Transmission for Manually Propelled Wheelchairs.   
This project seeks to develop a multi-speed geared wheel system for manual wheelchair users. This system will enhance function while reducing joint forces and moments through a multi-gearing mechanism.   
Role: Co-Investigator (UWM PI)   
  
The Medical College of Wisconsin Lee (PI) 1/1/2016-6/30/2017   
Department of Physical Medicine & Rehabilitation, RAC Intramural Grant Program   
Shoulder Biomechanics: A Comparative Study of Wheelchair and Able-bodied Lacrosse Athletes   
The goal of the proposed study is to evaluate upper extremity joint demands of wheelchair lacrosse athletes during throwing.   
Role: Co-PI   
  
Completed Research Support   
  
UWM College of Health Sciences Slavens (PI) 7/1/2014-12/31/2016   
Stimulus Program to Accelerate Research Clusters (SPARC)   
Development of a Clinical Toolkit for Real-time Visualization of Lower Limb Amputee Gait   
The goal of this project is to develop a clinical toolkit integrating real-time three-dimensional (3-D) animation and biomechanical metrics that will allow prosthetists to visually quantify amputee gait.   
Role: PI   
  
University of Wisconsin Institute for Clinical and Translational Research Slavens (PI) 8/1/2015-7/31/2016   
Novel Therapeutics Discovery & Development Pilot Awards Program   
A BCI-EEG Driven Robotic Stroke Rehabilitation Device   
The goal of this project is to test the efficacy of a Brain-Computer Interface (BCI) neurological feedback device to drive robotic stroke rehabilitation.   
Role: Co-PI   
  
National Science Foundation (NSF) Center for Compact and Efficient Fluid Power (CCEFP)   
Hsaio-Wecksler (PI) 6/1/2014-5/31/2016   
Soft Pneumatic Actuator for Arm Orthosis   
This project aims to develop novel high-force, energy storing, miniature soft pneumatic actuators, and to directly integrate them as the structure for soft robotic upper extremity orthoses for pediatric patients that use walkers or crutches for ambulation.   
Role: Co-Investigator   
  
K12HD073945 Slavens (UWM PI) 5/20/2013-5/19/2015   
Eunice Kennedy Shriver   
National Institute Of Child Health & Human Development   
National Institutes of Health   
Interdisciplinary Rehabilitation Engineering Career Development Program (IREK12) in Movement and Rehabilitation Sciences   
The goal of this program is to recruit and train scholars with engineering and other quantitative backgrounds to become successful rehabilitation scientists in basic, translational and/or clinical research.   
Role: K12 Scholar PI

***Kevin Schlidt, B.S.***  
Medical College of Wisconsin

*(no CV uploaded)*

***Alyssa Schnorenberg, MS***  
University of Wisconsin-Milwaukee

*(no CV uploaded)*

***Lawrence Vogel, MD***  
Shriners Hospitals for Children

*(no CV uploaded)*

***Gerald Harris, PhD, PE***  
Marquette University

*(no CV uploaded)*

**129**

**PREVALENCE OF PRE-HOSPITAL HAEMODYNAMIC INSTABILITY IN THE ACUTE PHASE OF TRAUMATIC SPINAL CORD INJURY (SCI)**

Thursday, May 03, 2018 09:30 AM - 10:30 AM

***JILLIAN Clark, Ph.D.***  
Royal Adelaide Hospital

**CV:**  
Clark JM.   
Biomarkers for the prognosis of spinal cord injury Australian and New Zealand Spinal Cord Injury Network Symposium, Perth, WA, November 26th, 2009 – Invited Plenary Speaker   
  
Clark JM   
Spinal cord injury and prognostic biomarkers. The 4th Mt Lofty Workshop on Frontier Technologies for Nervous System Function and Repair 17th-19th December, 2010 Adelaide, Sth Australia – Invited Plenary Speaker.   
  
Clark JM, Marshall R, Sharkey D, Wilkinson M, Clifton-Bligh R.   
Evidence for altered bone and skeletal muscle interactions in spinal cord injured (SCI) patients 40th Annual Scientific Meeting of the American Spinal Injury Association May 14th- 17th, 2014, San Antonio, Texas, USA – Award Eligible Paper   
  
Marshall R, Clark JM, Dunlop SA, Galea MP   
The International Standards for of Spinal Cord Injury (ISNCSCI): Consensus between Expert Examiners and Clinicians 12th ACSR Spinal Research Symposium X11, 16th- 18th October 2014, Adelaide, South Australia   
  
Clark JM, Sharkey D, Marshall R.   
Prognostic value of neutrophil to leukocyte ratio and cytokine signatures in patients presenting with spinal cord injury (SCI) 5th Australian Neurotrauma Symposium, 16th-18th October 2014, Adelaide, South Australia   
  
Clark JM, Marshall R, Wilkinson M, Clifton-Bligh R.   
Skeletal regulation of energy metabolism in spinal cord injured patients Mt Lofty Workshop, 28th-30th Nov, 2014, Adelaide, South Australia   
  
Clark JM, R Zarrinkalam, M Piche, R Marshall, BJC Freeman.   
Invited reviews   
Marshall R, Clark JM.   
The nature of the non-traumatic spinal cord injury literature: A systematic review Topics in Spinal Cord Injury Rehabilitation   
Accepted for publication April 4th 2017.   
  
Clark JM, Findlay DM. Musculoskeletal health in the context of spinal cord injury Current Osteoporosis Reports (Springer Current Osteoporosis Reports Springer Nature DOI: 10.1007/s11914-017-0400-1   
Accepted for publication June 1st 2017   
  
Original publications   
Ryan D Quarrington, Claire F Jones, Petar Tcherveniakov, Jillian M Clark, Simon J I Sandler, Yu Chao Lee, Shabnam Torabiardakani, John J Costi and Brian J C Freeman   
Traumatic subaxial cervical facet subluxation and dislocation injury: epidemiology, radiographic analysis and risk factors for spinal cord injury Spine (accepted 20th July 2017)   
  
Armstrong AJ\*, Clark JM\*, Ho DT, Payne CJ, Nolan S, Goodes L M, Marshall R, Galea MP, Dunlop SA Achieving assessor accuracy on the International Standards for Neurological Classification of Spinal Cord Injury. Spinal Cord (advance on-line publication 2017 \*Joint principal author http://www.nature.com/doifinder/10.1038/sc.2017.67).   
  
Dorstyn D, Roberts R, Murphy G, Kneebone I, Craig A, Chur-Hansen A, Migliorini C, Potter E, Stewart P, Clark J, Marshall R.   
Can targeted job information for adults with spinal cord dysfunction be effectively delivered online? A feasibility study J Spinal Cord Medicine (accepted for publication April 6th 2017)   
  
Galea MP, Pannisset M, Dunlop S, Marshall R, Clark J, Churilov L.   
SCIPA Switch-ON – A Randomised Controlled Trial Investigating the Efficacy and Safety of Functional Electrical Stimulation-Assisted Cycling and Passive Cycling Initiated Early After Traumatic Spinal Cord Injury. NeuroRehabilitation and Neural Repair (published on-line March 2017 – JIF 4.035)   
  
Battistuzzo CR, Skeers P, Cox S, Armstrong A, Clark JM, Laurenson J, Bernard S, Smith K, Freeman BJC, Dunlop SA, Batchelor PE   
Early rapid neurological assessment for acute spinal cord injury trials J Neurotrauma, 2016 Nov 1;33(21):1936-1945.   
  
Harvey L, Dunlop S, Churlikov L. Galea M, (Clark JM, Marshall R)   
Early intensive hand rehabilitation is not more effective than usual care in people with sub-acute spinal cord injury (“Hands On”): A Randomised Controlled Trial J of Physiotherapy, 62 (2):88-95, 2016   
  
Battistuzzo CR, Armstrong A, Clark JM, Worley L, Sharwood L, Lin P, Rooke G, Skeers P, Nolan S, Geraghty T, Geddes T, Middleton J, Bernard S, Atresh S, Patel A, Schouten R, Freeman BJC, Dunlop SA, Batchelor PE, on behalf of the ICED Investigators   
Early Decompression Following Cervical Spinal Cord Injury: Examining the Process of Care from Accident Scene to Surgery in Australia and New Zealand J Neurotrauma, 33(12):1161-9, 2016   
  
Galea M, Dunlop S, Marshall R, Clark J, Churilov L.   
Early exercise after spinal cord injury (“Switch-On”): Study protocol for a randomised controlled trial Trials 16:7 2015   
  
Clark J, Marshall R, Sharkey D, Wilkinson M, Clifton-Bligh R.   
Evidence for altered bone and skeletal muscle interactions in spinal cord injured (SCI) patients Journal Spinal Cord Medicine Vol 20 Suppl 1:12, 2014   
  
Clark J, Marshall R, Sharkey D.   
Prognostic value of neutrophil to leukocyte ratio and cytokine signatures in patients presenting with spinal cord injury (SCI) Journal Spinal Cord Medicine Vol 20 Suppl 1:56-57, 2014   
Does the Acute Neutrophil Lymphocyte Ratio Predict Severity of Spinal Cord Injury (SCI)? ACSR Spinal Research Symposium X111, August 2015 Barossa Valley, South Australia   
  
Clark JM, R Zarrinkalam, M Piche, R Marshall, BJC Freeman.   
Does the Acute Neutrophil Lymphocyte Ratio Predict Severity of Spinal Cord Injury (SCI)? 6th Australian Neurotrauma Forum, October 5th-16th 2015, Adelaide, South Australia   
  
Clark JM. Under-loaded bone: Lessons from Spinal Cord Injury 16th Clare Bone & Joint Meeting, 1st- 4th April 2016, Clare Valley, South Australia

***Prashanthe Rao, MD; Ph.D.***  
Royal Adelaide Hospial

*(no CV uploaded)*

***Brian Freeman, MD, Ph.D.***  
Royal Adelaide Hospital

*(no CV uploaded)*

***Mike Atherton, MD***  
Royal Adelaide Hospital

*(no CV uploaded)*

**130**

**Best Practice for Heterotopic Ossification Prevention and Management**

Thursday, May 03, 2018 12:45 PM - 02:15 PM

***James Crew, MD***  
Santa Clara Valley Medical Center

**CV:**  
BOARD CERTIFICATION   
  
2009 - Present Diplomate, American Board of Physical Medicine and Rehabilitation (ABPMR)   
2011 - Present Neuromuscular Medicine Board Certification   
2009 - Present Spinal Cord Injury Medicine Board Certification   
2008 - 2009 ABPMR Written and Oral Board Examinations   
2002 - 2007 USMLE Steps 1, 2, and 3   
  
  
MEDICAL LICENSURE   
  
2009 - Present Full Medical License - California State Department of Health - MD A109047   
2008 - 2010 Full Medical License - Washington State Department of Health - MD 60001526   
2004 - 2008 Limited Medical License - Washington State Department of Health   
  
  
PUBLICATIONS (last 5 years)   
  
‘Specialized Respiratory Management for Acute Cervical Spinal Cord Injury: A Retrospective Analysis’. Wong SL, Shem K, Crew J. Topics in Spinal Cord Injury Rehabilitation 2012;18(4):283-290.   
  
‘Safety and Feasibility of using the Ekso Bionic Exoskeleton to Aid Ambulation after Spinal Cord Injury’. Kolakowsky-Hayner SA, Crew J, Moran S, Shah A. Journal of Spine 2013; S4: 003.   
  
‘Low Vitamin D Levels in Persons with Spinal Cord Injury and Increased Incidence of Venous Thromboembolic Events during Acute Inpatient Rehabilitation Stay’   
Timmerman M, Crew J, Shem K, Kim M, Kolakowsky S, Wright J. PM&R 2013:5(9):S140.   
  
‘Severe Hair Loss during Inpatient Rehabilitation due to Telogen Effluvium: A Case Report’   
Varghis N, Crew J. PM&R 2014:6(9):S236.   
  
‘An Unusual Case of Tetraplegia from Yoga: A Case Report’   
Williams L, Eichenbaum L, Nahm L, Crew J. PM&R 2014:6(9):S296.   
  
‘The Value of Maintaining Primary Board Certification in Physical Medicine and Rehabilitation’   
Crew J, Gittler M, Kenndey DJ. PM&R 2014;6(7):650-655.   
  
‘Pressure ulcers in people with spinal cord injury in developing nations’   
Zakrasek ED, Creasey G, Crew J. Spinal Cord 2015:53(1):7-13.   
  
‘Subacute Combined Degeneration of the Spinal Cord Secondary to Nitrous Oxide Abuse’   
Martin E, Dorr J, Tryhorn A, Crew J. Am J Phys Rehabil 2016:95(3):a112.   
  
‘Pulmonary outcomes following specialized respiratory management for acute cervical spinal cord injury: a retrospective analysis.’   
Zakrasek EC, Nielson JL, Kosarchuk JJ, Crew JD, Ferguson AR, McKenna SL. Spinal Cord 2017; 1-7.   
  
  
INVITED PRESENTATIONS/LECTURES (last 5 years)   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at California Society of Respiratory Care, Lake Tahoe, NV 03/2012   
  
‘Vitamin D: Effect on Health and Relevance in PM&R’   
Lecture at Stanford Grand Rounds, Palo Alto, CA 07/2012   
  
‘Description of a 6 Week Pilot Study of the EksoTM Wearable Exoskeleton after SCI’   
Presentation at PVA Annual Conference, Las Vegas, NV 08/2012   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at Totally Trauma Conference, Monterey, CA 10/2012   
  
‘Prognosis and Quality of Life after SCI’   
Presentation at UCSF Neuroscience Conference, San Francisco, CA 12/2013   
  
‘Spinal Cord Injury Rehabilitation and Research Trends’   
Presentation at Stanford 24th Annual Trauma Symposium 08/2014   
  
‘Spinal Cord Injury Acute Medical Management’   
Trauma Grand Rounds at Fresno Community Regional Medical Center 02/2014   
  
‘Respiratory Management in Spinal Cord Injury’   
Province Rounds at GF Strong Rehabilitation Centre in Vancouver, BC 05/2015   
  
  
WORK EXPERIENCE AND APPOINTMENTS   
  
11/2014 – Present   
Santa Clara Valley Medical Center   
Chair, Physical Medicine and Rehabilitation   
  
8/2011 – Present Santa Clara Valley Medical Center   
Chief of Spinal Cord Injury, Physical Medicine and Rehabilitation   
  
3/2016 – Present Stanford School of Medicine   
Clinical Associate Professor (Affiliated), Department of Orthopaedic Surgery   
  
8/2011 – 7/2014 Stanford Physical Medicine and Rehabilitation Residency Site Director   
Santa Clara Valley Medical Center Site Director for Stanford PM&R Residency   
  
1/2010 – 3/2016 Stanford School of Medicine   
Clinical Instructor (Affiliated), Department of Orthopaedic Surgery   
  
8/2009 – 8/2011 Santa Clara Valley Medical Center   
Associate Chief, Physical Medicine and Rehabilitation   
  
  
RESEARCH EXPERIENCE   
  
2015 - Present Co-PI, SCVMC/Stanford Site, Asterias Stem Cell Clinical Trial in Acute SCI   
2014 - Present Chair, Stanford PM&R Research and Quality Committee   
2012 - 2015 PI, SCVMC Stie, Asubio SUN13837 Clinical Trial in Acute Spinal Cord Injury (SCI)   
2011 - 2013 PI, Treatment of Hypovitaminosis D in SCI   
2010 - 2011 Co-PI, Preliminary Evaluation of Exoskeleton Use after SCI   
2009 - 2011 Co-PI, SCVMC/Stanford Site, Geron Stem Cell Clinical Trial in Acute SCI   
2010 - 2011 PI, Evaluation of Hypovitaminosis D in SCI   
2007 - 2009 Investigator, Mechanical Insufflation Exsufflation use in Tetraplegia   
  
  
AWARDS   
  
2017 Santa Clara County 2016 Employee of the Year, received 2/2017   
2016 Santa Clara County Employee of the Month, February 2016   
2014 Santa Clara Valley Medical Rehabilitation Center Leadership Award   
2013 Stanford University Physical Medicine and Rehabilitation Humanitarian Award   
2011 Sam Schmidt Paralysis Foundation/ASIA Young Investigator Research Grant Award   
  
NATIONAL ACADEMY INVOLVEMENT   
  
2017 - Present Vice Chair of Education, Central Nervous System Council, AAPMR   
2017 - Present Health Advocacy Committee Member, ASIA   
2014 - Present Reviewer, PM&R Journal   
2014 - Present Reviewer, Spinal Cord Journal   
2015 Q Bank question writer, Neuromuscular Medicine, AAPMR

***Jennifer Hastings, PT, PhD***  
University of Puget Sound

**CV:**  
Licensure Information:   
  
1986-present State of Washington: PT000034438   
  
1985-1988 State of Massachusetts: 5661   
  
  
  
  
  
Certifications:   
  
2009 Re Certified as Clinical Specialist in Neurologic Physical Therapy   
American Board of Physical Therapy Specialties   
  
2000 Clinical Specialist in Neurologic Physical Therapy   
American Board of Physical Therapy Specialties   
  
  
Employment and Positions Held:   
  
Professor   
Tenured   
University of Puget Sound   
Tacoma, WA   
July 2016-present   
  
Director of Physical Therapy and Professor   
University of Puget Sound   
Tacoma, WA   
2013-July 2016 (tenured 2016)   
  
Director of Physical Therapy and Associate Professor   
Tenure line   
University of Puget Sound   
Tacoma, WA   
2010-2013   
  
Director of Clinical Education and Clinical Associate Professor   
Non-tenure   
University of Puget Sound   
Tacoma, WA   
2007-2010   
  
Private Practice Clinician   
Maximum Mobility Physical Therapy   
Kent, WA   
2003-present   
  
Research Health Science Specialist   
Intermittent Consultant   
GS-12   
Department of Research and Development   
DVA Puget Sound Health Care System   
Seattle, WA   
July 07-Sept 07   
  
Research Health Science Specialist   
Research Coordinator   
Body Composition in Veterans with SCI & D   
GS-12   
Department of Research and Development   
DVA Puget Sound Health Care System   
Seattle, WA   
Jan 07-June 07   
  
Adjunct Faculty   
University of Indianapolis   
Krannert School of Physical Therapy   
Indianapolis, IN   
2001-2007   
  
SCI Clinical Specialist   
Spinal Cord Injury Service   
GS-11   
DVA Puget Sound Health Care System   
Seattle, WA   
2003-2006   
  
Adjunct Faculty   
University of Puget Sound   
Tacoma, WA   
2003-2004   
  
Clinical Associate Professor   
Non Tenure   
University of Puget Sound   
Tacoma, WA   
2002- 2003   
  
Clinical Assistant Professor   
Non Tenure   
University of Puget Sound   
Tacoma, WA   
1998-2002   
  
SCI Clinical Specialist Consultant   
Spinal Cord Injury Service   
GS-11   
DVA Puget Sound Health Care System   
Seattle, WA   
1998-2003   
  
Clinical Specialist   
Physical Therapist III   
Comprehensive Outpatient Rehabilitation Program   
Harborview Medical Center   
Seattle, WA   
1999-2002   
  
  
  
Peer Reviewed Publications:   
  
Chung-Ying Tsai, Ph.D; Michael Boninger, MD; Jennifer Hastings, PhD; Rory Cooper, PhD; Laura Rice, PhD; Alicia Koontz   
The Immediate Biomechanical Implications of Transfer Component Skills Training on Independent Wheelchair Transfers. Archives of Physical Medicine and Rehabilitation Vol. 97, Issue 10, p1785–1792   
Published online ahead of print April 12,2016   
  
  
  
George D. Fulk, PT, PhD and Jennifer Hastings, PT, PhD, NCS   
“Manual Wheelchair Mobility Skills”; CH 8 (2016) in O’Sullivan and Schmitz   
Improving Functional Outcomes in Physical Rehabilitation, second edition   
Philadelphia, PA: F.A. Davis Co.   
  
Hastings J, Shapiro S. Healing Wounds under Mechanical Stress: A Case Example.   
International Journal of Clinical Medicine (IJCM) Vol. 7 No. 2 2016. http:www.scirp.org/journal/IJCM February 22, 2016.   
  
Hastings J, Dickson J, Tracy L, Baniewich C, Levine C. Conservative treatment of neuromuscular scoliosis in adult tetraplegia: a case report. Archives of Physical Medicine and Rehabilitation, Vol. 95, Issue 12, p2491–2495   
published online ahead of print May 7, 2014   
  
Hastings J, Harvey L, Bruce J, Somers M   
Compensation allows recovery of functional independence in people with serious motor impairments following spinal cord injury: a short communication. (2012)   
Letter to Editor- Journal of Rehabilitation Medicine 44:277-278.   
Published on line 3-8-2012   
  
  
  
Peer reviewed scientific/professional Presentations:   
  
Brun-Cottan N, McMillian D, Hastings J   
“Defending the Art of Physical Therapy: Expanding Inquiry and Crafting Culture in Support of Therapeutic Alliance”   
Poster Presentation   
Combined Section Meeting of the APTA   
New Orleans, LA Feb 2017   
  
Hastings J, Brown C, McNabb M, Repasky C   
“The use of Heel Lifts for Individuals with Parkinson’s Disease to Improve Postural Stability”   
Poster Presentation   
Combined Section Meeting of the APTA   
New Orleans, LA Feb 2017   
  
Hastings J, Brown C, McNabb M, Repasky C   
“The use of Heel Lifts for Individuals with Parkinson’s Disease to Improve Postural Stability”   
Poster Presentation   
American Congress of Rehabilitation Medicine Annual Meeting   
Atlanta, GA Oct 2017   
  
Wilson A, Hastings J   
Reading Comprehension as an Admission Criteria in an Entry-Level Physical Therapist Program: Correlation between the Nelson Denny Reading Test and the GRE   
Poster Presentation   
Education Leadership Conference of the APTA   
Columbus, OH Oct 2017   
  
Hastings J, Anderson T, McKirgan K.   
“Comparing seated pressures in daily wheelchair and sports equipment and investigating the skin protective effects of padded shorts”   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
Albuquerque, NM, April 2017   
Abstract Published: Topics in Spinal Cord Injury Rehabilitation, 2017 Vol23 Supplement 1 p46   
  
  
Brun-Cottan N, McMillian D, Hastings J   
“Defending the Art of Physical Therapy: Expanding Inquiry and Crafting Culture in Support of Therapeutic Alliance”   
Flash Paper Presentation   
Health Humanities Consortium   
Houston, TX, March 2017   
  
Hastings J, Muller A.   
“Novel Sensory Intervention to Promote Late Motor Recovery in an Individual with Incomplete Spinal Cord Injury: A Case Report”.   
Poster Presentation   
9th World Congress for Neurorehabilitation (WCNR)   
Philadelphia PA, May 2016   
  
Muller A, Hastings J.   
“Novel Sensory Intervention to Promote Late Motor Recovery in an Individual with Incomplete Spinal Cord Injury: A Case Report”.   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
Philadelphia PA, April 2016   
  
Hastings J   
“What Are The Barriers To Use Of Abdominal Binders In Persons With Abdominal Paralysis Due To Spinal Cord Injury?”   
Poster Presentation   
Combined Meeting International Spinal Cord Society and American Spinal Injury Association   
Montreal Canada, May 2015   
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“A non-surgical option to correct neuromuscular scoliosis in adult tetraplegia: a case review”   
Poster Presentation   
American Spinal Injury Association Annual Meeting   
San Antonio, TX May 2014   
Topics in Spinal Cord Injury Rehabilitation, 2014:20 Supplement 1: 72-73   
  
  
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“Investigation of a non-surgical option to correct neuromuscular scoliosis in adult quadriplegic: a case review”   
Platform Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Prusynski R, Collins E, Stabler A, Bartel H, Hastings J   
“Posture and Upper Quarter Pain: Individualized Wheelchair Seating Intervention For Subjects With Thoracic SCI: A Case Series”   
Platform Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Hastings J.   
Successful Healing Of Grade IV Ischial Pressure Ulcer With Home Electrical Stimulation And Progressive Reseating (5 year follow up)   
Poster Presentation   
Academy of Spinal Cord Injury Professionals Annual Conference   
Las Vegas, NV Sept 2013   
  
Hastings J, Baniewich C, Dickson J, Levine C, McLennan L   
“Investigation of a non-surgical option to correct neuromuscular scoliosis in adult quadriplegic: a case review”   
Poster Presentation   
Combined Section Meeting of the APTA   
San Diego CA Jan 2013   
  
Prusynski R, Collins E, Stabler A, Bartel H, Hastings J   
“Posture and Upper Quarter Pain: Individualized Wheelchair Seating Intervention for Subjects with Thoracic SCI: A Case Series”   
Platform Presentation   
7th World Congress for NeuroRehabilitation   
Melbourne Australia May 2012   
  
  
Funded/In Review Grant Activity:   
none   
  
  
  
Current/ Active Research Activity:   
  
Current Comparison of Abdominal Compression Devices in Persons with Abdominal paralysis Due to Spinal Cord Injury   
Collaboration with students –internal funding   
  
Current Heel lift intervention effects on stability for individuals with Parkinson’s disease and plantar flexion contractures.   
Collaboration with students – internal funding   
  
  
Current Investigating seated pressure of individuals with SCI in personal adaptive sport equipment and daily wheelchair   
Collaboration with students- internal funding   
  
  
  
Membership in Scientific/Professional Organizations:   
  
American Physical Therapy Association   
  
Chair, Consortium for Humanities, Ethics and Professionalism   
Academic Council (2016-present)   
  
Clinical Education Terminology Task Group   
Academic Council (2012-2013)   
  
Nominating Committee, Academic Council   
Education Section (2010-2012)   
  
Chair, Spinal Cord Injury Special Interest Group   
Neurology Section (2008-2011)   
  
Vice chair, Spinal Cord Injury Special Interest Group   
Neurology Section (2000-2004)   
  
American Society of Neurorehabilitation   
  
American Spinal Injury Association   
  
Advocacy Committee (2016- current)   
Chair subcommittee on Length of Stay   
Programming Committee (2010-2014)   
  
Academy of Spinal Cord Injury Professionals   
  
International Spinal Cord Society   
  
  
Consultative and Advisory Positions Held:   
  
2013-2016 Clinical Advisory Council   
Tilite   
  
  
2007-2010 SCI Expert Panelist (representing) American Physical Therapy Association   
SCI and Sexuality and Reproductive Health Clinical Practice Guideline   
Consortium for Spinal Cord Medicine Clinical Practice Guidelines   
Paralyzed Veterans of America   
  
2002-2007 Executive Committee-Spinal Cord Injury QUERI   
Quality Enhancement Research Initiative   
Department of Veterans Affairs   
  
2006-2007 SCI Expert Consultant   
Hooked on Evidence   
American Physical Therapy Association   
  
  
2004 Expert Reviewer (representing) American Spinal Injury Association   
Preservation of Upper Limb Function Following Spinal Cord Injury: Clinical Practice Guidelines for Health Care Professionals.   
Consortium for Spinal Cord Medicine Clinical Practice Guidelines   
Paralyzed Veterans of America   
  
1998 Editor   
“Caring for People with SCI/D: A Guide for Personal Care Assistants”   
Department of Veterans Affairs Education Project, Renee Christensen project manager   
  
1996-1998 Mono and Bi Ski Training Specialist   
SKIFORALL, Seattle, WA   
  
1993 Research and Development Advisor   
MCI Technologies (wheelchairs)   
Santa Clara, CA

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**Measuring Bowel Dysfunction After SCI: Strategies and Findings**

Thursday, May 03, 2018 12:45 PM - 02:15 PM

***Denise Tate, PhD***  
University of Michigan

**CV:**  
A. Personal Statement   
I am a Professor and Associate Chair for Research in the Department of Physical Medicine and Rehabilitation (PM&R). I served as the PI for the University of Michigan SCI Model System (U-M SCIMS), funded by NIDILRR, for the past 22 years and as the PI for a Spinal Cord Injury Research Program - Qualitative Research Award (SCIRP-QRA) Congressionally Directed Medical Research Program from the U.S. the Department of Defense from 2013-2016. My team and I have collaborated with the Ann Arbor Center for Independent Living on to how to educate consumers with SCI and their families since my arrival at U-M in 1986. During my early years at U-M my primary area of research was in community reintegration after SCI and I have always advocated for peer support programs as means of providing education and enhancing self- esteem and positive well-being. I have been a member of the NINDS/NIH Common Data Elements taskforce on quality of life, and recently received funding to study QOL cross-culturally. I have experience with the conduct of several clinical trials. I believe that I am well qualified to participate in and lead U-M team in this collaborative project and that I am surrounded by a highly qualified and productive team of researchers at U-M and collaborating institutions.   
  
B. Positions and Honors Positions and Employment   
1986 – 1994 Assistant Professor of Physical Medicine & Rehabilitation, Department of Physical Medicine and Rehabilitation, University of Michigan Medical School, Ann Arbor, MI   
1994 – 2002 Associate Professor of Physical Medicine & Rehabilitation, Department of Physical Medicine and Rehabilitation, University of Michigan Medical School, Ann Arbor, MI   
2002 – Present Professor, Physical Medicine & Rehabilitation, Department of Physical Medicine and Rehabilitation, University of Michigan Medical School, Ann Arbor, MI   
2007 – 2012 Appointed Member of the Board of Scientific Counselors (NCIPC-CDC)   
2006 – 2007 Appointed to the Institute of Medicine Taskforce on Medical Benefits of Veterans   
2009 – 2013 Appointed to the National Advisory Board of Medical Rehabilitation Research (NCMRR) NIH 2013 – Present Craig Nielsen Foundation Psychosocial Review Advisory Board member   
2015 – Present Department of Defense SCIRP-QRA reviewer   
2016 – Present PCORI Review Panel Member for Treatment and Diagnostic applications 2016 – Present NIDILRR Reviewer for Advanced Rehabilitation Research programs   
  
Honors and Awards   
1981 Mary Switzer Research Fellow Award, US Dept. of Education, Wash. DC   
1995 Elizabeth & Sidney Licht Award for Scientific Writing, Arch Phys Med Rehabil, American Congress of Rehabilitation Medicine (ACRM)   
1995 Distinguished Member Award, American Congress of Rehabilitation Medicine (ACRM) 1997 Fellow, American Psychological Association (APA)   
1998 Division 22, Distinguished Service Award, American Psychological Association (APA) 2000 ELAM Fellow - Hedwig van Ameringer Executive Leadership in Academic Medicine 2000 Leonard Diller Scientific Lecture Award, American Psychological Association (APA) 2000 Chair of Scientific Research Committee, AASCIPSW, Paralyzed Veterans Administration   
2001 Kenneth L. Estabrook Distinguished Scientist Lectureship Award, Kessler Institute of Rehabilitation, New Jersey School of Dentistry   
2001 NICHD/NIH Mentor Award for Excellence in Research Training   
2003 ACRM Fellow Award, American Congress of Rehabilitation Medicine (ACRM)   
2004 Essen Morgan Research Award – American Association of Spinal Cord Injury Psychologists and Social Workers (AASCIPSW)   
2005 Stanley J. Coulter Lecturer, American Congress of Rehabilitation Medicine (ACRM)   
2006 –2007 Institute of Medicine (IOM) – Subcommittee on Veterans Medical Evaluation and Benefits Compensation   
2006 -2010 National Center for Injury Prevention and Control, Centers for Disease Control and Prevention, Board of Scientific Counselors.   
2006 - 2011 Chair, NIDRR Spinal Cord Injury Model Systems Project Directors, Wash. DC   
2007 - 2012 Chair of Study Section, Healthcare Research Training Study Section; AHRQ, Wash. DC 2009 – 2013 National Center for Medical Rehabilitation Research (NCMRR) NICHD/NIH Advisory Board   
Member   
2010 Rubin Rehabilitation Lecturer, Rehabilitation Institute of Chicago, Department of Physical Medicine and Rehabilitation, Northwestern University Feinberg School of Medicine.   
2010 Invited Speaker on Trauma Conference: Polytrauma Related to Spinal Cord Injury, Department of Defense, Wash. DC   
2011 - Present Steering Committee Member, Institute of Gerontology, Wayne State University   
2011 - Present Steering Committee Member, Consortium of Standard Practice Guidelines for SCI Care Paralyzed Veterans Administration, Wash. DC   
2011 League of Research Excellence Award. University of Michigan Medical School   
2012 American Spinal Injury Association Distinguished Service Award, Annual Meeting of ASIA. 2012 NINDS Common Data Element (CDE) Project- SCI Quality of Life Task Force.   
2013 Clinical and Health Services Research Award, University of Michigan Medical School.   
  
C. Contributions to SCI Research (selected publications)   
1. Community Integration and Peer Support   
a) Tate DG, Maynard F, Forchheimer M. Evaluation of a Medical Rehabilitation and Independent Living Program for Persons with Spinal-Cord Injury. Journal of Rehabilitation. JUL-SEP 1992;58(3):25-28.   
b) Tate DG, Forchheimer M. Enhancing community reintegration after inpatient rehabilitation for persons with spinal cord injury. Topics in Spinal Cord Injury Rehabilitation. SUM 1998;4(1):42-55. DOI: 10.1310/FK0R- 2K94-BN99-52FY   
c) Tate DG. Hospital to Community: Changes in Practice and Outcomes. Rehabilitation Psychology. MAY 2001;46(2):125-138. DOI: 10.1037/0090-5550.46.2.125   
d) Forchheimer M, Tate DG. Enhancing community re-integration following spinal cord injury.   
NeuroRehabilitation. 2004;19(2):103-113. PMID: 15201469   
2. Clinical Trials Research   
e) Tate DG, Findley Jr T, Dijkers M, Nobunaga AI, Karunas RB. Randomized Clinical Trials in Medical Rehabilitation Research. American Journal of Physical Medicine & Rehabilitation. SEP 1999;78(5):486- 499. DOI: 10.1097/00002060-199909000-00016   
f) Zemper ED, Tate DG, Roller S, Forchheimer M, Chiodo A, Nelson VS, Scelza W. Assessment of a holistic wellness program for persons with spinal cord injury. American Journal of Physical Medicine & Rehabilitation. DEC 2003;82(12):957-968. DOI: 10.1097/01.PHM.0000098504.78524.E2   
  
g) Tate D, Kalpakjian C, Kwon C. The Use of Randomized Clinical Trials in Rehabilitation Psychology.   
Rehabilitation Psychology. Aug 2008;53(3):268-278. DOI: 10.1037/a0012974   
h) Fann JR, Bombardier CH, Richards JS, Wilson CS, Heinemann AW, Warren AM, Brooks L, McCullumsmith CB, Temkin N, Wasms C, Tate DG. Venlafaxine Extended-release for Depression Following Spinal Cord Injury. A Randomized Clinical Trial. JAMA Psychiatry. Mar 2015; 72(3):247-58. PMID: 25607727 DOI: 10.1001/jamapsychiatry.2014.2482.   
i) Richards JS, Bombardier CH, Wilson CS, Chiodo AE, Brooks L, Tate DG, Temkin NR, Barber JK, Heinemann AW, McCullumsmith C, Fann JR. Efficacy of Venlafaxine XR for the Treatment of Pain in Patients with Spinal Cord Injury and Major Depression: A Randomized, Controlled Trial. Archives of Physical Medicine & Rehabilitation. 2015 Apr;96(4):680-689. DOI: 10.1016/j.apmr.2014.11.024.   
j) Richardson EJ, Brooks LG, Richards JS, Bombardier CH, Barber J, Tate D, Forchheimer MB, Fann JR. Changes in pain and quality of life in depressed individuals with spinal cord injury: does type of pain matter? Journal of Spinal Cord Medicine. SEP 2016;39(5):535-543. DOI: 10.1080/10790268.2016.1151145.   
  
D. Research Support Ongoing Research   
440840 Tate (PI) 04/30/17 – 04/29/20   
Craig H. Neilsen Foundation   
Validation of the International SCI Quality of Life Basic Data Set (SCI-QOLBDS)   
This study is designed to: 1) evaluate the reliability and validity characteristics of the SCI-QoLBDS and to determine its applicability cross-culturally, documenting the equivalence of scores across languages and cultures; 2) examine the clinical value of the SCI-QoLBDS by determining its association with clinical outcomes (i.e., pain, bladder and bowel complications, and participation); and 3) gather data to allow for comparisons of scores based on age, time since onset, neurological classification, traumatic and non-traumatic causes.   
  
2 P2C HD06572-06 Tate (site Co-PI)/Ottenbacher (PI) 09/01/15 – 08/31/20 National Center for Medical Rehabilitation Research (NCMRR)/NIH   
The Center for Large Data research and Data Sharing in Rehabilitation (CRRLD) builds rehabilitation research capacity in large data analytics by focusing on education and training activities, providing collaborative research opportunities, and developing resources, such as our Data Directory and Data Sharing Portal. The Center includes a consortium of 3 institutions: University of Texas Medical Branch, Cornell University, and the University of Michigan at Ann Arbor. Tate serves as a Pilot Study Coordinator for CRRLD.   
  
H133P140005 Tate/Kalpakjian (Co-PIs) 09/01/14 – 08/31/19 National Institute on Disability, Independent Living and Rehabilitation Research   
The University of Michigan Advanced Rehabilitation Research Training Program in Community Living and Participation (ARRT-CP) trains post-doctoral fellows to advance the rehabilitation field in community living and participation embracing community based research approaches. This five year program will train 6 post-doctoral fellows and up to 5 physician resident trainees in conducting research projects, writing grants and publications as well as completing a rotation with a community based agency. This program is conducted in collaboration with the School of Public Health and the Michigan Institute for Clinical and Health Research.   
  
H133N110002 Tate (PI) 10/01/11 – 03/31/17   
NIDILRR/ US Department of Education   
The University of Michigan Model Spinal Cord Injury Care System (UM-SCIMS)   
The overall goal of this center grant is to generate new knowledge through research, development and demonstration to improve health outcomes for individuals with spinal cord injury (SCI). The current five year cycle focuses on neurogenic bladder and bowel management and its effect on quality of life and behaviors on those living and aging with SCI. Additional projects include developing two outcome assessment measures using computerized adaptive assessment methods to measure functional impairment; and quality of life; a collaborative study on Medicare sponsored assessments of functional impairment. The lab also offers research education and training opportunities to undergraduate students, graduate and post-doctoral fellows as well as resident physicians, other allied health professionals and visiting faculty.   
  
Research Completed in last 3 years   
  
SCI110228; GRANT # 11012787 Tate (PI) 10/01/12 - 12/31/16   
Department of the Army/USAMRAA; Dept. of Defense (CDMRP)   
Psychosocial and Behavioral Factors Associated with Bowel and Bladder Management after SCI   
This study employs a mixed method approach (qualitative and quantitative) to investigate behaviors related to bladder and bowel complications and their effects on quality of life for a group of civilian and military individuals with SCI. The investigators are particularly interested on examining changes in management associated with aging and time since injury.   
  
H133P090008 Tate (PI) 09/01/09 – 08/31/14   
NIDRR/Department of Education   
The UMHS-AACIL Rehabilitation Research Training Program   
The University of Michigan Health Services –Ann Arbor Center of Independent Living Research Training Program focuses on providing post-doctoral fellows with research skills on methods of assessment, design of studies, clinical trials, writing grant submissions and publications which will produce new knowledge that will improve the lives of persons with disabilities. Career development, laboratory training are also part of this curriculum. The program provides full-time stipends for post-doctoral fellows selected into this competitive program.   
  
7R01HD054569 Tulsky - Tate (Co-PIs) 07/01/07- 06/30/14 NIH/NINDS/NCMRR   
Measuring Quality of Life in Spinal Cord Injury – R01   
This is a multi-site study designed to develop a multi-faceted measure of quality of life for persons with spinal cord injury that can be used via computerized adaptive testing. The project included data collection on 800 subjects, conducting focus groups and testing of item banks to be included in several functional domains of quality of life including physical function, ambulation, fatigue, pain, autonomy/independence, cognitive functioning, social function, emotional distress, sexual function, communication, sleep disturbance, etc.   
Tate (Site PI).

***Marcel Post, PhD***  
University of Groningen Department of Rehabilitation Medicine

**CV:**  
Personal statement   
I have worked as associate professor at the Department of Rehabilitation medicine, Nursing Sciences and Sports of the University Medical Center Utrecht and as senior researcher and leader of the spinal cord injury research program at De Hoogstraat Rehabilitation since 2005. In 2014 I have been appointed research (“special”) professor of spinal cord injury rehabilitation at the University of Groningen. My main research interests include rehabilitation care, participation, quality of life, psychological factors, self-management, and family empowerment in persons with spinal cord injury, and instrument development in these areas. For many years I have been involved in the development, translation and/or validation of tests and questionnaires. I have served on the executive committee of the International SCI Data Sets project since its origin in 2002 and have co-chaired the development of the Quality of Life Data Set and the Activities and Participation Data Set. I have extensive experience as PI of different types of studies, including psychometrical studies, multicenter cohort studies and a multicentre randomized clinical trial.   
  
Positions:   
1985 – 1999 Research fellow, Department of Health Sciences and Epidemiology; Utrecht University   
1999 – 2005 Senior Researcher, iRv, Institute for Rehabilitation Research, Hoensbroek   
2005 – present Senior Researcher, Rehabilitation Centre De Hoogstraat and associate professor Rudolf Magnus Institute for Neuroscience, University Medical Centre Utrecht. Program leader spinal cord injury research   
2014 – present Special professor in spinal cord injury rehabilitation at the University of Groningen and University Medical Center Groningen, Department of Rehabilitation Medicine   
  
Awards, prizes   
2010 Winner Van Hoytema award for important contributions to rehabilitation medicine, Dutch Association for Physical Medicine and Rehabilitation   
2014 Guttman lecturer, annual conference International Spinal Cord Society   
2006 Supervisor winner Van Hoytema award (J.M.A. Visser-Meily)   
2009 Supervisor winner Livit Trophy for best research during residency Dutch Association for Physical Medicine and Rehabilitation (C.F. van Koppenhagen)   
2010 Supervisor winner Livit Trophy (P.E.L.A. Passier)   
2014 Supervisor winner Livit Trophy (W. Kruithof)   
  
2010 Co-author best oral presentation ISCoS conference (first author S. van Langeveld)   
2016 Senior author Dutch nomination Trans European Scientific Contest TESC Award (first author J. Adriaansen).   
  
  
Recent publications (selected from 300+ peer-reviewed manuscripts)   
  
06/2016 De Groot S van der Scheer JW, Bakkum AJT, Adriaansen JE, Smit C, Dijkstra C, Post MWM, van der Woude LHV. Wheelchair-specific fitness of persons with a long-term spinal cord injury:   
Cross-sectional study on effects of time since injury and physical activity level. Disabil Rehabil   
2016;38(12):1180-6.   
PMID: 26308969   
  
06/2016 Sinnott KA, Dunn JA, Wangdell J, Johanson ME, Hall AS, Post MW. Measurement of Outcomes of Upper Limb Reconstructive Surgery for Tetraplegia. Arch Phys Med Rehabil. 2016 Jun;97(6S):S169-S181.   
PMID: 27233592   
  
05/2016 Adriaansen JJ, Douma-Haan Y, van Asbeck FW, van Koppenhagen CF, de Groot S, Smit CA; ALLRISC, Visser-Meily JM, Post MW. Prevalence of hypertension and associated risk factors in people with long-term spinal cord injury living in the Netherlands. Disabil Rehabil. 2016 May 9:1-9. [Epub ahead of print]   
PMID: 27157316   
  
04/2016 Post MW. What to do with "moderate" reliability and validity coefficients? Arch Phys Med Rehabil. 2016 Apr 16.[Epub ahead of print]   
PMID: 27095143   
  
04/2016 Ravensbergen HJ, de Groot S, Post MW, Bongers-Janssen HM, van der Woude LH, Claydon VE. Is there an association between markers of cardiovascular autonomic dysfunction at discharge from rehabilitation and participation one and five years later in individuals with spinal cord injury? Arch Phys Med Rehabil. 2016 Apr 12. [Epub ahead of print]   
PMID: 27084265   
  
04/2016 Osterthun R, van Asbeck FW, Nijendijk JH, Post MW. In-hospital end-of-life decisions after new traumatic spinal cord injury in the Netherlands. Spinal Cord. 2016 Apr 12. doi: 10.1038/sc.2016.37. [Epub ahead of print]   
PMID: 27067656   
  
04/2016 Post MWM, Adriaansen JJE, Charlifue S, Biering-Sørensen F, van Asbeck FWA. Good validity of the International Spinal Cord Injury Quality of Life Basic Data Set. Spinal Cord. 2016 Apr;54(4):314-8.   
PMID: 26099212   
  
03/2016 Sadiqi S, Lehr AM, Jacobs WC, Post MW, Oner FC; AOSpine Knowledge Forum Spinal Cord Injury and Knowledge Forum Trauma. Reply to the Letter to the Editor regarding "Towards the Development of a Universal Outcome Instrument for Spine Trauma - A Systematic Review and Content Comparison of Outcome Measures used in Spine Trauma Research Using the ICF as Reference.". Spine (Phila Pa 1976). 2016 Mar;41(5):E302-3.   
PMID: 26919413   
  
03/2016 Van Diemen T, van Lankveld W, van Leeuwen C, Post M, van Nes I. Multidimensional fatigue during rehabilitation in persons with recently acquired spinal cord injury. J Rehabil Med 2016 Mar 1;48(1):27-32.   
PMID: 26449895   
  
03/2016 New PW, Reeves RK, Smith É, Eriks-Hoogland I, Gupta A, Scivoletto G, Townson A, Maurizio B, Post MW. International retrospective comparison of inpatient rehabilitation for patients with spinal cord dysfunction: differences according to etiology. Arch Phys Med Rehabil. 2016 Mar;97(3):380-5.   
PMID: 26615143   
  
03/2016 Prodinger B, Ballert CS, Brinkhof M, Tennant A, Post MWM. Metric Properties of the Spinal Cord Independence Measure - Self Report (SCIM-SR) in a community survey J Rehabil Med 2016;48:149–164.   
PMID: 26926919   
  
03/2016 Mader L, Post MWM, Ballert CS, Michel G, Stucki G, Brinkhof MWG. Metric properties of the utrecht scale for evaluation of rehabilitation-participation (user-participation) in persons   
with spinal cord injury living in Switzerland. J Rehabil Med 2016;48:165–174.   
PMID: 26926920   
  
03/2016 Reinhardt JD, Ballert C, Brinkhof MW, Post MW. Perceived impact of environmental barriers on participation among people living with spinal cord injury in Switzerland. J Rehabil Med. 2016 Mar 1;48(2):210-8.   
PMID: 26926923   
  
02/2016 Oner CF, Jacobs WC, Lehr AM, Sadiqi S, Post MW, Aarabi B, Chapman JR, Dvorak MF, Fehlings MG, Kandziora F, Rajasekaran S, Vaccaro AR. Towards the development of a universal outcome instrument for spine trauma - A systematic review and content comparison of outcome measures used in spine trauma research using the ICF as reference. Spine (Phila Pa 1976). 2016 Feb;41(4):358-67.   
PMID: 26555824   
  
  
10/2015 Post MW, Charlifue S, Biering-Sørensen F, Catz A, Dijkers MP, Horsewell J, Noonan VK, Noreau L, Tate DG, Sinnott KA. Development of the International Spinal Cord Injury Activities and Participation Basic Data Set. Spinal Cord. 2015 Oct 20. [Epub ahead of print]   
PMID: 26481708   
  
  
  
Funding sources as PI or Co-PI last 5 years (note: my own position is internally funded)   
  
2016 St. Kwaliteitsgelden Medisch Specialisten 62.500 Measurement of outcomes of stroke rehabilitation   
2015 Dwarslaesie Organisatie Nederland 12.500 Peer counseling in inpatient SCI rehabilitation   
2015 ZonMW Revalidatieonderzoek 66.683 Online information on SCI (SCI Wiki)   
2014 ZonMW Revalidatieonderzoek 596.689 Family-centered rehabilitation SCI, amputation, brain injury   
2014 Revalidatiefonds 310.641 Self-management and autonomy in SCI rehabilitation   
2013 St. Kwaliteitsgelden Medisch Specialisten 66.000 Implementation USER-instrument in stroke rehabilitation   
2012 Innovatiefonds Zorgverzekeraars 84.844 Psychosocial SCI rehabilitation   
2012 Swiss Paraplegic Research 37.600 Personal factors after SCI   
2012 Revalidatiefonds en Dwarslaesiefonds 17.000 Employment after SCI

***David Tulsky, PhD***  
University of Delaware College of Health Sciences

**CV:**  
A. Personal Statement   
  
Dr. Tulsky is Professor in the Department of Physical Therapy and Director of the Center for Health Assessment Research and Translation at the University of Delaware. He received his PhD from UIC with specializations in Clinical Psychology and Psychometrics. He completed post-doctoral fellowship at Rush-Presbyterian St. Luke’s Medical Center in Chicago where he developed measures of quality of life for cancer patients. Dr. Tulsky has served as PI and Co-I on several measurement related grants from the NIH, NIDRR, DoD, VA including serving as a PI on the SCI Model Systems from NIDRR, PI of NIH multi-site R-01 study to optimize PROMIS for individuals with SCI and a U-01 PROMIS research grant to validate PROMIS in children with SCI and TBI, NIDRR grants to optimize PROMIS for individuals with TBI, and was Project PI on a large multisite study to validate NIH Toolbox in individuals with SCI, TBI, and Stroke. Dr. Tulsky is serving as the PI of a Craig H Neilsen Foundation grant to develop a symptom-monitoring/self-management system using SCI-QOL item banks and motion-graphic animated video for symptoms of pain, depression, and anxiety for individuals with SCI. Over 15 years, Dr. Tulsky has worked on the development of NIH Common Data Elements measures and has validated and optimized them for rehabilitation populations. As Co-Principal Investigator, Dr. Tulsky will provide expertise in implementing outcomes measures for individuals with SCI and will provide access to qualitative data collected during previous projects. Dr. Tulsky has successfully led several multisite collaborative studies of individuals with SCI and has a history of successful collaboration with other project investigators; as such he is uniquely suited to carry out the proposed work.   
B. Positions and Honors   
Positions and Employment   
1989-1992 Clinical Coordinator and Research Associate, Rush Cancer Center, Rush Presbyterian St. Lukes Medical Center, Chicago, IL   
1993-1997 Project Director, The Psychological Corporation, San Antonio, TX   
1995-2000 Manager, Wechsler Development Team, The Psychological Corporation, San Antonio, TX   
1998-2000 Senior Project Director, The Psychological Corporation, San Antonio, TX   
2000-2010 Director, Spinal Cord Injury Research Laboratory, Kessler Foundation, West Orange, NJ   
2001-2010 Associate Professor, Department of Physical Medicine and Rehabilitation, University of   
Medicine and Dentistry of New Jersey, Newark, NJ   
2007-2010 Vice-President, Outcomes & Assessment Research, Kessler Foundation, West Orange, NJ   
2010-2013 Director, Center for Rehabilitation Outcomes and Assessment Research & Professor & Director of, Research, Department of Physical Medicine and Rehabilitation, University of   
Michigan, Ann Arbor, MI   
2013-2014 Professor (with tenure), Department of Rehabilitation Medicine, New York University Langone Medical Center, New York, NY   
2014-Present Professor (with tenure), Department of Physical Therapy, University of Delaware College of Health Sciences   
  
Other Experience (select examples)   
1990-1993 Editorial Board: Quality of Life Research   
2005- Editorial Board: Disability & Rehabilitation, Assistive Technology   
2006-2011 NIDRR Model System Outcomes, QOL & Participation Committee, Chair.   
2006-2010 Editorial Board: Journal of Clinical & Experimental Neuropsychology   
2007-2011 Editorial Board: Assessment   
2009-2012 Interagency committee (NINDS, NIDRR, VA, DoD) to develop common data elements as outcomes variables for TBI research.   
C. Contribution to Science   
1. Advances in medicine and technology have greatly increased longevity and quality of life (QOL) for individuals with developmental and acquired disabilities. However, clinicians’ ability to assess quality of life has not advanced proportionately. Although the general field of patient-reported outcomes has made significant advances, the assessment of condition-specific QOL still lags behind. Using extensive patient engagement techniques, my colleagues and I have worked with individuals with disabilities to identify measurement gaps that are critical to QOL but not assessed with general population instruments. Based firmly on input from patients and clinicians, my colleagues and I have created new assessment tools to assess condition-specific QOL, especially for patients with spinal cord injury (SCI) or traumatic brain injury (TBI). I led the development and initial evaluation of the Spinal Cord Injury – Quality of Life (SCI-QOL), Spinal Cord Injury – Functional Index (SCI-FI), and Traumatic Brain Injury – Quality of Life (TBI-QOL). Among other domains, these new tools assess bowel/bladder functioning (most relevant to individuals with SCI), pressure ulcers (SCI), headaches (TBI), and several disability-specific psychosocial constructs like independence, resilience, grief/loss, self-esteem, psychological trauma, and stigma. These psychosocial constructs provide a much richer and condition-specific assessment of emotional functioning than traditional assessments that only capture anxiety and depression. Because generic measurement tools do not include disability-specific domains, they are not optimally useful in clinical diagnosis, treatment, or symptom management.   
  
a) Tulsky, DS, Kisala, PA, Victorson, D, Tate, DG, Heinemann, AW, Charlifue, S, Kirshblum, SC, Fyffe, D, Gershon, R, Spungen, AM, Bombardier, CH, Dyson-Hudson, TA, Amtmann, D, Kalpakjian, C, Choi, S, Jette, A, Forchheimer, M, & Cella, DF Overview of the Spinal Cord Injury – Quality of Life (SCI-QOL) Measurement System. Journal of Spinal Cord Medicine. 38(3). 257-269. 2015.   
b) Tulsky, DS, Kisala, PA, Victorson, D, Choi, S, Gershon, R, Heinemann, AW, & Cella, DF. Methodology for the Development and Calibration of the SCI-QOL Item Banks. Journal of Spinal Cord Medicine; 38(3). 270-287. 2015.   
c) Tulsky, D.S., Jette, A., Kisala, PA, Kalpakjian, C., Dijkers, MP, Whiteneck, G., Ni P, Kirshblum, S., Charlifue, S., Heinemann, AW, Forchheimer, M, Slavin, M, Houlihan, B, Tate, D., Dyson-Hudson, T., Fyffe, D, Williams, S, Zanca, J. The SCI-FI: Item Banks to measure physical functioning of individuals with spinal cord injury. Archives of Physical Medicine and Rehabilitation. 83, 1722 - 1732. 2012.   
d) Tulsky, DS, Kisala, P, Victorson, D, Carlozzi, N, Bushnik, T, Sherer, M, Choi, S, Heinemann, A, Chiaravalloti, ND, Sander, A, Englander, J, Hanks, R, Kolakowsky-Hayner, S., Roth, E., Gershon, R, Wood, K, Rosenthal, M., & Cella, D. TBI-QOL: Development and Calibration of item banks to measure patient reported outcomes following traumatic brain injury. Journal of Head Trauma Rehabilitation, 31 (1), 40-51, 2016.   
e) Tulsky, DS, Kisala, PA, Tate, DG, Spungen, AM, & Kirshblum, S. Development and Psychometric Characteristics of the SCI-QOL Bladder Management Difficulties and Bowel Management Difficulties Item Banks and Short Forms and the SCI-QOL Bladder Complications Scale. Journal of Spinal Cord Medicine. 38(3). 288-302. 2015.   
  
2. At the same time that my colleagues and I have created new assessment tools to assess condition-specific quality of life, we have also optimized existing PROMIS and Neuro-QOL item banks for individuals with SCI and TBI, respectively. Assessment tools that were designed for general population use can perform differently when applied to clinical populations. For example, item phrasing may take on different meaning, scoring may be anchored to the incorrect population, or calibrations may be biased. Thus, careful clinical validation and modifications are needed. With the SCI-QOL, TBI-QOL, and SCI-FI measurement systems, my colleagues and I have optimize existing item banks (e.g., from PROMIS and Neuro-QOL) for use with the SCI or TBI population. Inappropriate or biased items were either removed or recalibrated. New item content was developed based upon patient feedback. With new calibrations based upon the clinical samples, the revised item bank would be different from the standard, general population scores. My colleagues and I also developed a new methodology using item-response theory linking techniques to transform the condition-specific scores back to the PROMIS or Neuro-QOL metric enabling comparison of scores. The procedure permits the use of clinically optimized calibrations while also transforming the scores so that they are directly interpretable as PROMIS/Neuro-QOL.   
  
a) Tulsky, DS, Kisala, PA, Kalpakjian, C, Bombardier, CH, Pohlig, R, Heinemann, AW, Carle, A, & Choi, SW. Measuring Depression after Spinal Cord Injury: Development and Psychometric Characteristics of the SCI-QOL Depression Item Bank and Linkage with PHQ-9. 38(3). 335-346. 2015.   
b) Kisala, PA, Tulsky, DS, Kalpakjian, C, Heinemann, AW, Pohlig, R, Carle, A, & Choi, SW. Measuring Anxiety after Spinal Cord Injury: Development and Psychometric Characteristics of the SCI-QOL Anxiety Item Bank and Linkage with GAD-7. Journal of Spinal Cord Medicine. 38(3). 315-325. 2015   
c) Bertisch, H, Kalpakjian, CZ, Kisala, PA, & Tulsky, DS. Measuring Positive Affect & Well-Being after Spinal Cord Injury: Development and Psychometric Characteristics of the SCI-QOL Positive Affect & Well-Being Item Bank and Short Form. Journal of Spinal Cord Medicine. 38(3). 356-365. 2015.   
d) Kisala, PA, Tulsky, DS, Pace, N, Victorson, D, Choi, SW, Heinemann, AW, Victorson, D, Choi, S & Tulsky, DS. Measuring Stigma after Spinal Cord Injury: Development and Psychometric Characteristics of the SCI-QOL Stigma Item Bank and Short Form. Journal of Spinal Cord Medicine. 38(3). 386-396. 2015.   
e) Heinemann, AW, Kisala, PA, Hahn, B, & Tulsky, DS. Development of Item Banks to Measure Ability to Participation and Satisfaction with Social Roles and Activities in Individuals with SCI. Journal of Spinal Cord Medicine. 38(3). 397-408. 2015.   
  
3. A strong emphasis of my research portfolio has been the use of advanced psychometric techniques to develop and validate clinically relevant scales. I have worked closely on developing normative information, base rate information, advanced factor analytic techniques, and conventional validation efforts. The body of work has strived to present the methods and results to clinicians and researchers in a way that is digestible, clinically meaningful, and actionable. This includes imparting information to the clinician about score discrepancies, score factors, and score base rates. I have introduced new scales and scores, utilizing base rate data that have helped clinicians understand specific areas of clinical strengths and weaknesses.   
  
a) Tulsky DS, Saklofske DH, Wilkins C, Weiss LG. Development of a general ability index for the Wechsler Audit Intelligence Scale – Third Edition. Psychological Assessment 13(4):566-571, 2001.   
b) Tulsky DS, Price LR. The joint WAIS-III and WMS-III factor structure: development and cross-validation of a six-factor model of cognitive functioning. Psychological Assessment 15(2):149-162, 2003.   
c) Tulsky, DS, Carlozzi, N, Chiaravalloti, ND, Beaumont, JL, Kisala, PA, & Mungas, D., Conway, K, & Gershon, R. NIH Toolbox Cognition Battery (NIHTB-CB): The List Sorting Test to Measure Working Memory. JINS: Journal of International Neuropsychological Society, 20, 599-610, 2014.   
d) Carlozzi, N., Grech, J., & Tulsky, D.S. Memory functioning in individuals with traumatic brain injury: An examination of the Wechsler Memory Scales – Fourth Edition (WMS-IV). Journal of Clinical and Experimental Neuropsychology, 35(9), 906-914, 2013.   
e) Lange, R.T., Brickell, TA, Bailie, J, Tulsky, DS, & French, LM. Clinical Utility and Psychometric Properties of the Traumatic Brain Injury Quality of Life (TBI-QOL) Scale in U.S. Military Service Members. Journal of Head Trauma Rehabilitation, 31 (1), 62-78, 2016.   
Complete List of Published Work in MyBibliography: http://www.ncbi.nlm.nih.gov/sites/myncbi/1FwmSqaZqxYkz/bibliography/48062129/public/?sort=date&direction=ascending   
D. Research Support   
Ongoing Research Support   
  
439797 Tulsky (PI) 04/30/2017-04/29/2019   
This project is focused on developing targeted self-management intervention videos to deploy the SCI-QOL psychosocial banks in a subjectively meaningful way whereby individuals with SCI use the measures to monitor their functioning and are provided with self-management intervention videos when scores are elevated. We believe that once individuals complete their self-monitoring on the SCI-QOL scales, there is a “teachable moment” as people are attuned to the reported difficulties and are motivated to “act” in real time on targeted self-management support strategies.   
Role: Principal Investigator   
  
CDC: 5U01CE002196-02 Rivara (PI) 09/30/2013- 09/29/2017   
Effect of Treatment on Outcome after TBI in Children and Adolescents   
The goal of this project is to characterize the effects of treatment during the acute, short-term, and longer-term phases of care on the functional, psychosocial, and disability outcomes after TBI occurring to children.   
Role: Co-Investigator   
  
Dept. of Education: H133N11002 Tate (PI) 10/1/2011-03/30/2017   
The University of Michigan Model Spinal Cord Injury Care System   
The major goals of this project are to contribute data to the national database and conduct site-specific and modular studies on rehabilitation in individuals with spinal cord injury.   
Role: Co-Investigator (PI of SCI-QOL Module)   
  
NINR: R01NR013658 Carlozzi (PI) 10/01/2012- 06/30/2017   
Quality of Life in Caregivers of traumatic brain injury: The TBI-CareQOL   
The goals of this project were to develop an outcomes assessment measure to assess health-related quality of life in caregivers of individuals with traumatic brain injury for use in research studies and clinical trials.   
Role: Co-Investigator   
  
Dept. of Defense: W81XWH-11-2-0222 Tulsky (PI) 09/30/2014 - 09/29/2017   
Community Reintegration, Functional Outcomes and QOL after Upper and Lower Extremity Trauma (BADER Consortium).   
The goal of this project is to develop a set of common data elements to be used across DoD, VA, and civilian sites.   
Role: PI   
  
Rick Hansen Institute Kisala (PI) 03/01/2015-02/28/2017   
G2015-26   
Evaluating the Sensitivity, Specificity, and Clinical Utility of the SCI-QOL Common Data Elements (CDEs)   
Project Goals: The major goals of this project are to further validate the Spinal Cord Injury – Quality of Life (SCI-QOL) common data elements and to improve the interpretability and clinical utility of the SCI-QOL scales.   
Role: Co-Investigator   
  
90DP0047-02-00 Bushnik (PI) 04/01/2015 – 09/30/17   
Validation and Responsiveness of the TBI-QOL Measurement System, Rusk Rehabilitation Traumatic Brain Injury Model System of Care at New York University   
This project aims to establish the validity and responsiveness to change of the TBI-QOL item banks.   
Role: PI of TBI-QOL Module; TBIMS Co-Investigator   
  
U24 OD023319-01 Gershon and Cella (PI) 11/01/2016 – 08/31/2023   
NIH/National Cancer Institute $18,337,688   
Environmental influences on Child Health Outcomes (ECHO) Patient Reported Outcomes Research Resource Center Core (ECHO PRO Core)   
Negative environmental exposures can have a profoundly adverse effect upon the health of children. The overall objective of the ECHO consortium is to capture this adverse impact of early environmental exposures on children’s health by bringing together several existing studies of the influence of the environment on prenatal, postnatal and early childhood health.   
Role: Co-Investigator   
  
  
Completed Research Support NIH/NIAMS: U01AR057929 Tulsky/Jette (PI) 10/01/2009- 06/30/2015   
PROS (Patient Reported Outcomes) for Children and Young Adults with Disabilities   
The goal of this project is to evaluate current PROMIS child and adult item banks in a wide spectrum of childhood and young adult disabling conditions including children with SCI, TBI, and Cerebral Palsy.   
Role: Co-PI   
  
NICHD/NCMRR: 5R01HD054659 Tulsky (PI) 09/2007- 06/2013   
Quality of Life in Spinal Cord Injury Clinical Trials: Development of the SCI-QOL.   
The primary goals of this study were to develop a valid, reliable, and psychometrically sound system of conceptually-grounded patient reported outcomes measures specifically for individuals with SCI.   
Role: PI   
  
NIDRR: H133G070138 Tulsky (PI) 10/2007- 09/2012   
Measuring Quality of Life in TBI: The Next Generation of Instruments (TBI-QOL)   
The primary goals of this study were to develop a valid, reliable, and psychometrically sound system of conceptually-grounded patient reported outcomes measures specifically for individuals with TBI.   
Role: PI   
  
Dept. of Education: H133B090024 Heinemann (PI) 10/1/2009- 09/29/2016   
RRTC on Improving Measurement of Medical Rehabilitation Outcomes   
The goal of this project is to develop, test and evaluate measures of environmental factors   
and their influence on participation for persons with stroke, TBI and SCI.   
Role: Co-Investigator; Site PI

***Gianna Rodriguez, MD***  
University of Michigan

**CV:**  
Publications (selected only):   
Cameron AP, Wallner LP, Tate DG, Sarma AV, Rodriguez GM, Clemens JQ: Bladder management after SCI in the United States 1972 to 2005. J of Urology 184 (1): 213-217, 2010.   
Cameron AP, Wallner LP, Forchheimer MB, Clemens JQ, Dunn RL, Rodriguez GM, Chen D, Horton J, Tate DG: Medical and psychosocial complications associated with method of bladder management in traumatic SCI. Arch Phys Med Rehabil 92(3); 449-456, 2011.   
Tate DG, Forchheimer M, Rodriguez GM, Chiodo A, Pelletier Cameron A, Meade M, Krassioukov A. Risk Factors Associated with Neurogenic Bowel Dysfunction and Complications in SCI. Arch Phy Med Rehabil 2016.   
Presentations (selected only)   
Bowel Dysfunction after SCI, Mary Free Bed Hospital Conference and SCI Symposium, October 12 2017.

**132**

**Stimulating Spinal Cord Injury: Moving Neuromodulation of Gait Past Proof of Principle**

Thursday, May 03, 2018 12:45 PM - 02:15 PM

***Keith Tansey, MD, PhD***  
Methodist Rehab/Ummc/Jackson Vamc

**CV:**  
A. Personal Statement   
My research could be characterized as “restorative neurology in spinal cord injury (SCI)” and is focused on neural plasticity and functional recovery following injury. I am especially interested in understanding the underlying mechanisms of this neural plasticity and how it could be augmented to bring about greater recovery.   
In our animal lab, we are studying changes in an intersegmental spinal reflex following SCI. The cutaneus trunci muscle (CTM) reflex produces a skin “shrug” in response to pinch on a rat's back and is mediated by a three neuron circuit: C and A-delta pain afferents in lumbar and thoracic segmental dorsal cutaneous nerves (DCNs), ascending propriospinal interneurons, and the CTM motoneuron pool at the cervico-thoracic junction. Activation of these DCNs also generates a blood pressure response via the autonomic nervous system. Using this reflex, we are now asking specific questions about anatomical and physiological plasticity in a neural circuit simple enough to determine cause and effect. We have found that the pain afferents of this reflex can generate “hypereflexia” and “dysautonomia” after SCI making it an approachable neural circuit in which to study how some aspects of neuropathic pain and autonomic dysreflexia develop after SCI. Our current work is showing that this physiological plasticity is paralleled by pain afferent central projections anatomical plasticity. Most recently, we have been able to modify both the physiological and anatomical plasticity seen in the CTM reflex away from the injury site by modifying microglia activation there, resolving nociceptive hypereflexia.   
In our human research, we are studying the neural plasticity underlying the recovery of locomotion in SCI and the effect locomotor training and other clinical therapeutic interventions has on that process. For this work we have combined the technologies of electrophysiology, imaging and robotics. We have used fMRI to demonstrate that locomotor training, which improves the recovery of over-ground stepping, also generates supraspinal plasticity, especially in the cerebellum. We are now using electrophysiology to investigate the nature of spinal circuit plasticity in our subjects by studying muscle activation patterns and spinal reflex modulation during stepping. We have learned that soleus H-reflex modulation during gait changes over the course of locomotor training and is related to the final over ground gait speed subjects obtain. We are now studying the progression of this recovery across multiple lower extremity muscles using posterior root motor reflexes (PRMRs). We are also using the robotic gait orthosis, the Lokomat, to relate mechanical features of stepping to the neural plasticity we find and to characterize how these perturbations in these mechanical signals are handled by the recovering neural circuitry for stepping. We have begun to study how we can augment motor output during stepping in SCI subjects using tonic transcutaneous spinal cord stimulation (tSCS) and peripheral nerve stimulation. Early work is showing that the neurophysiology and mechanics of stepping and of spasticity can be positively impacted with tSCS in a stimulation frequency dependent manner and by peripheral nerve stimulation depending on when during the gait cycle that neuromodulation is supplied. We are starting to extend our studies of motor control after cervical spinal cord injury to the upper extremities using the Armeo robotic orthosis to parallel our lower extremity studies in the Lokomat.   
I also contribute to the field of spinal cord injury medicine/rehabilitation through service and leadership. In addition to caring for spinal cord injury patients in the Veterans Administration system, I am currently the President of the American Spinal Injury Association and I served on the board of the American Society of Neurorehabilitation. I work with several committees and consortia on clinical trials and on research tools in spinal cord injury. Finally, I just co-edited a book from Springer, “Neurological Aspects of Spinal Cord Injury”.   
  
B. Positions and Honors   
Positions   
1998-2002 Clinical Instructor/Research Fellow, Department of Neurology,   
Washington University School of Medicine, St. Louis, MO   
University of California Los Angeles School of Medicine, Los Angeles, CA   
2002-2008 Assistant Professor, Departments of Neurology (Neurorehabilitation Section Head),   
Neurosurgery and Physical Medicine and Rehabilitation; Director, Spinal Cord Injury Program,   
University of Texas Southwestern Medical Center, Dallas, TX   
2008-2013 Assistant Professor, Departments of Neurology and Physiology,   
Emory University School of Medicine, Atlanta, GA   
2008-2013 Director, Spinal Cord Injury Research and Restorative Neurology Programs   
Crawford Research Institute, Shepherd Center, Atlanta, GA   
2008-2016 Attending Physician, Spinal Cord Injury Clinic,   
Atlanta VA Medical Center, Atlanta, GA   
2013-2016 Associate Professor, Departments of Neurology and Physiology,   
Emory University School of Medicine, Atlanta, GA   
2016-present Senior Scientist, Center for Neuroscience and Neurological Recovery and NeuroRobotics Lab,   
Methodist Rehabilitation Center   
2016-present Professor, Departments of Neurosurgery and Neurobiology and Anatomical Sciences, Neurotrauma Center, Neuro Institute, University of Mississippi Medical Center   
2016-present Physician, Spinal Cord Injury Medicine and Research Services,   
G.V. (Sonny) Montgomery Veterans Administration Medical Center   
  
Honors/Appointments   
1993 Texas Scholar Award, Kent Waldrop National Paralysis Foundation   
1994 Neurology Prize, University of Texas Southwestern Medical School at Dallas   
2000 - 2001 Consortium Associate, Christopher Reeve Paralysis Foundation   
2004, 05, 08 Outstanding Teaching Award, 1st Year Med School Class, U. Texas Southwestern Med. Ctr.   
2005 “Best Paper” Award, American Spinal Injury Association   
2006 Outstanding Teaching Award, Neurology Clinical Clerkship, U. Texas Southwestern Med. Ctr.   
2007 Favorite Medical School Course Award, Univ. of Texas Southwestern Medical School at Dallas   
2007 Socrates Award, University of Texas Southwestern Medical School at Dallas   
2007 - 2011 Secretarial Appointee to the Scientific Merit Review Board, Department of Veterans Affairs   
2008 “Best Poster” Award, Georgia Stem Cell Initiative Symposium   
2009 - 2012 Vice President, Board of Directors, International Society for Restorative Neurology (ISRN)   
2009 - now Board of Directors, American Spinal Injury Association (ASIA)   
2010 - 2016 Board of Directors, American Society for Neurorehabilitation (ASNR)   
2010 - now Spinal Cord Injury Section Editor, Journal Watch, American Society for Neurorehabilitation   
2011 - 2013 Editorial Board, Topics in Spinal Cord Injury Rehabilitation   
2011 - 2013 Planning Group, Advanced Robotic Therapy Integrated Centers (ARTIC)   
2011 - 2016 Unified Council for Neurologic Subspecialties (UCNS) Neurorehabilitation Exam Committee   
2012 - 2013 President, Board of Directors, International Society for Restorative Neurology (ISRN)   
2012 - now Scientific Advisory Committee/Challenge Judge/Mentoring Program, Conquer Paralysis Now   
2012 - now Planning Group, Spinal Cord Outcomes Partnership Endeavor (SCOPE)   
2013 Scientific Review Board Reveiwer, Craig Neilsen Foundation   
2013 - 2015 Secretary Treasurer, American Spinal Injury Association   
2013 - now Chair, Spinal Cord Injury Common Data Elements Electrodiagnostics Working Group, NINDS   
2013 - 2016 Chair, Membership Committee, American Society for Neurorehabilitation   
2014 - now Scientific Committee, International Spinal Cord Society (ISCoS)   
2014 - now Scientific Advisory Board, United 2 Fight Paralysis   
2014 - 2016 Data Safety Monitoring Board, Neuralstem Inc.   
2014 - now International SCI Data Set Committee, International Spinal Cord Society (ISCoS)   
2015 - 2016 Trans NIH Rehabilitation Research Coordinating Committee, NIH   
2015 - 2017 President Elect, American Spinal Injury Association (ASIA)   
2015 “Celebration of Faculty Excellence” Award, Emory University School of Medicine   
2017 - now Data Safety Monitoring Board, WISE trial (Walking Intervention for SCI with Exoskeletons)   
2017 - now Medical Monitor, Neuralstem Inc.   
2017 “President’s Research Initiative” Award, American Association of Neuromuscular and   
Electrodiagnostic Medicine   
2017 - 2019 President, American Spinal Injury Association   
  
Board Certifications   
2000 Neurology, American Board of Psychiatry and Neurology   
2005 Spinal Cord Injury Medicine, American Board of Physical Medicine and Rehabilitation   
2012 Neural Repair and Rehabilitation, United Council for Neurological Subspecialties   
  
C. Contribution to Science - full Tansey citation list at:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/1Var-TbygrikF/bibliograpahy/49250056/public/?sort=date&direction=descending   
  
1. Neural plasticity in locomotor recovery in human spinal cord injury - For this work we have combined the technologies of electrophysiology, imaging and robotics. We have used fMRI to demonstrate that locomotor training, which improves the recovery of over-ground stepping, also generates supraspinal plasticity, especially in the cerebellum. We are now using electrophysiology to investigate the nature of spinal circuit plasticity in our subjects by studying muscle activation patterns and spinal reflex function during stepping. We have also begun to study how we can augment motor output during stepping in SCI subjects using tonic transcutaneous spinal cord stimulation (tSCS). That work is showing that the neurophysiology and mechanics of stepping and of spasticity can be positively impacted with tSCS in a stimulation frequency dependent manner.   
1. Winchester, P., McColl, R., Querry, R., Foreman, N., Mosby, J., Tansey, K., and Williamson, J., Changes in Supraspinal Activation Patterns following Robotic Locomotor Therapy in Subjects with Motor Incomplete Spinal Cord Injury. Neurorehabilitation and Neural Repair 19:313-324, 2005   
2. Querry, R., Pacheco, F., Annaswamy, T., Goetz, L., Winchester, P. and Tansey, K.E., Synchronous stimulation and monitoring of the H-reflex during robotic body weight ambulation in subjects with spinal cord injury, J. Rehab. Res. & Dev. 45:175-186, 2008   
3. Minsassian, K., Hofstoetter, U., Tansey, K., and Mayr, W., Neuromodulation of lower limb motor control in restorative neurology, Clin Neuro and Neurosurg 114:489-497, 2012   
4. Hofstoetter, U., McKay, B., Tansey, K., Mayr, W., Kern, H., and Minassian, K., Modification of spasticity   
by transcutaneous spinal cord stimulation in incomplete spinal cord injured individuals, J Spinal Cord   
Med 37:202-211, 2014   
5. Minassian, K., Hofstoetter, U.S., Danner, S.M., Mayr, W., Bruce, J.A., McKay, W.B., and Tansey, K.E.,   
Spinal rhythm generation by step-induced feedback and transcutaneous posterior root stimulation in   
complete spinal cord injured individuals, Neurorehabilitation and Neural Repair 30:233-243, 2016   
  
2. Neural plasticity in basic science models of spinal cord injury - In a variety of basic science models, we have explored neural plasticity in the form of astrocyte biology, gene expression, motoneuron properties, synaptic plasticity, and axon regeneration. We are currently working in a model neural circuit, the nociceptive intersegmental cutaneus trunci muscle (CTM) reflex. Not only can we study nociceptive biology, activation of the afferents in this reflex generates cardiovascular responses via the autonomic nervous system. We are finding that the pain afferents of this reflex can generate “hypereflexia” and “dysautonomia” after SCI and this physiological plasticity is paralleled by anatomical plasticity in these pain afferents’ central projections.   
1. Faulkner, J.R., Hermann, J.E., Woo, M.J., Tansey, K.E., Doan, N.B., and Sofroniew, M.V., Reactive astrocytes protect tissue and preserve function after spinal cord injury. J. Neurosci. 24:2143-2155, 2004.   
2. Petruska, J.C., Ichiyama, R.M., Crown, E.D., Tansey, K.E., Roy, R.R., Edgerton, V.R., and Mendell, L.M., Changes in Motoneuron Properties and Synaptic Inputs Related to Step Training Following Spinal Cord Transection in Rats J. Neuroscience 27:4460-71, 2007   
3. Tansey, K.E., Seifert, J.L., Botterman, B.R., Delgado, M.R., and Romero, M.I., Peripheral Nerve Repair through Multi-luminal Biosynthetic Implants, Ann Biomed Eng 2011   
4. Lee, H.J, White, J.M., Chung, J., and Tansey, K.E., Peripheral and central anatomical organization of   
cutaneous afferent subtypes in a rat nociceptive intersegmental spinal reflex, J Comp Neurol 15:2216-   
2234, 2017   
  
3. Advances in clinical research and care in spinal cord injury - Through work in clinical networks, societal committees and personal efforts, I have contributed to advancing the standard of care and of clinical research in the field of spinal cord injury medicine.   
1. Tansey, K.E., Profiling Motor Control in Spinal Cord Injury: Moving towards Individualized Therapy and   
Evidence-based Care Progression, J Spinal Cord Med 35:305-309, 2012   
2. Kirshblum, C.S., Biering-Sorensen, F., Betz, R., Burns, S., Donovan, W., Graves, D.E., Johansen, M.,   
Jones, L., Mulcahey, M.J., Rodriguez, G.M., Schmidt-Read, M., Steeves, J.D., Tansey, K., and Waring,   
W., International Standards for Neurological Classification of Spinal Cord Injury: Cases with classification   
challenges, J Spinal Cord Med 37:120-127, 2014   
3. Biering-Sorenson, F., Alai, S., Anderson, K., Charlifue, S., Chen, Y., DeVivo, M., Flanders, A., Jones, L.,   
Kleitman, N., Lans, A., Noonan, V.K., Odenkirchen, J., Steeves, J., Tansey, K., Widerstrom-Noga, and   
Jakeman, L.B., Common Data Elements for Spinal Cord Injury Clinical Research: A National Institutes   
for Neurological Disorders and Stroke Project, Spinal Cord 53:265-277, 2015   
4. Marino, R.J., Schmidt-Read, M., Kirshblum, S.C., Dyson-Hudson, T.A., Tansey, K.E., Morse, L.R., and   
Graves, D.E., Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in   
neurological classification of persons with spinal cord injury, Archives of PM&R 97:1642-1646, 2016   
5. Frontera WR, Bean JF, Damiano D, Ehrlich-Jones L, Fried-Oken M, Jette A, Jung R, Lieber RL, Malec   
JF, Mueller MJ, Ottenbacher KJ, Tansey KE, Thompson A., Rehabilitation Research at the National   
Institutes of Health Neurorehabil and Neural Repai, 31:304-314, 2017   
  
D. Research Support   
Ongoing Research Support   
  
Completed Research Support (selected)   
Project #: 297076 PI: Malu Tansey Funding Agency: Neilsen Foundation   
Grant Title: “XPro1595 to inhibit soluble TNF and modulate inflammation in spinal cord injury”   
Grant Dates: 7/1/14-2/28/17 (NCE) Role: Co-Investigator   
  
Project #: 1IO1RX000417-01A1 PI: Keith Tansey Funding Agency: VA RR&D   
Grant Title: “Human Spinal Circuit Plasticity with Locomotor Training in SCI”   
Grant Dates: 10/1/12 – 9/31/16 (NCE) Role: Principal Investigator   
  
Project #: 284874 PI: Keith Tansey Funding Agency: Neilsen Foundation   
Grant Title: “Pain induced dysautonomia in SCI: neural plasticity and intervention”   
Grant Dates: 2/1/14-1/31/16 Role: Principle Investigator   
  
Project #: H133N110005 PI: K. Tansey/L. Hudson Funding Agency: NIDRR/NIDILLR   
Grant Title: “Southeastern Regional SCIMS Program at Shepherd Center”   
Grant Dates: 10/1/11 – 9/30/16 Role: Co-Investigator   
  
Project #: SC090469 PI: Keith Tansey Funding Agency: DoD   
Grant Title: “The Neurophysiology of Autonomic Dysfunction in SCI: Plasticity in the Input and Output Neurons”   
Grant Dates: 10/1/10-1/26/14 Role: Principal Investigator   
  
Project #: 2-R01-HD039676-06A2 PI: Kevin McCully Funding Agency: NIH   
Grant Title: “Skeletal Muscle Plasticity, Fitness and Health after Spinal Cord Injury: Improving Glucose Tolerance”   
Grant Dates: 5/1/08-4/30/13 Role: Collaborator

***Kendall Lee, MD, PhD***  
Mayo Clinic

**CV:**  
A. Personal Statement   
I have extensive research expertise in neuroscience, specifically in electrophysiology, stereotactic and functional neurosurgery, and electrochemistry. I received my M.D. and Ph.D. degrees through the Medical Scientist Training Program at Yale University in 1998. My doctoral dissertation was on neurochemical modulation of synchronized oscillations in the thalamus (Department of Neurobiology). I was a neurology resident at Harvard Medical School and completed my neurosurgery residency at Dartmouth-Hitchcock Medical Center, with an emphasis on stereotactic and functional neurosurgery and deep brain stimulation (DBS). During my residency I also completed a postdoctoral research fellowship in electrophysiology. In 2006, I joined Mayo Clinic as a stereotactic and functional neurosurgeon with clinical emphasis on DBS and now am 50% clinical and 50% research. I founded and am co-director of the Mayo Neural Engineering Laboratories (NEL) for nine years, during which time the laboratory has grown from 5 to 42 full and part-time personnel. Under my leadership, the laboratory has mentored 14 graduate school and medical school students. In 2015 I became the chair of Enterprise Neurosurgery Research across Mayo’s three sites, and I am sitting member of BNVT study sections for NIH. For the past eleven years, my research has focused on elucidating the therapeutic mechanisms of electrical stimulation in restoring function in both brain (DBS) and spinal cord. The lab’s endeavors have included intensive collaboration with Mayo’s Division of Engineering to develop novel research devices such as wireless human-compatible fast-scan cyclic voltammetry designed for use during human and animal DBS surgery to monitor the neurochemical and electrophysiological bases of DBS, as well as research tools and novel imaging strategies to trace circuitry effects of DBS as a function of stimulation parameters and DBS target. Lastly, our lab is working to improve intraspinal microstimulation (ISMS), which is believed to be capable of producing longer-lasting muscle contractions, at least in part, by the lower stimulation amplitudes associated with direct stimulation of spinal circuits.   
  
1. Lee KH, McCormick DA. Abolition of spindle oscillations by serotonin and norepinephrine in the ferret lateral geniculate and perigeniculate nuclei in vitro. Neuron. 1996 17(2):309-21.   
2. Lee KH, Broberger C, Kim U, McCormick D. Histamine modulates thalamocortical activity by activating a chloride conductance in ferret perigeniculate neurons. Proc Natl Acad Sci USA. 2004 101:6716-21.   
3. Chang SY, Kim I, Marsh MP, Jang DP, Hwang SC, Van Gompel JJ, Goerss SJ, Kimble CJ, Bennet KE, Garris PA, Blaha CD, Lee KH. Wireless fast-scan cyclic voltammetry to monitor adenosine in patients with essential tremor during deep brain stimulation. Mayo Clin Proc. 2012 87(8):760-5.   
4. Min H-K, Ross EK, Jo HJ, Cho S, Settella ML, Jeong JH, Duffy PS, Chang S-Y, Bennet KE, Blaha CD, Lee KH. Dopamine release in the nonhuman primate caudate and putamen depends upon site of stimulation in the subthalamic nucleus. J Neurosci 2016 36(22):6022-6029.   
  
B. Positions and Honors   
Positions   
1994 - 1996 Instructor: Neurobiology 500b, Yale University School of Medicine   
1994 - 1998 Student Editor: The Yale Journal of Biology and Medicine   
1998 - 1999 Hospital of St. Raphael, Affiliate of Yale University School of Medicine   
Internship in Internal Medicine, Outstanding Intern of the Year   
1999 - 2000 Harvard Medical School, Partners’ Neurology program, Resident in Neurology   
2000 - 2001 Internship in General Surgery, Dartmouth-Hitchcock Medical Center   
2001 - 2006 Resident and Chief Resident in Neurosurgery Dartmouth-Hitchcock Medical Center   
2006 - 2009 Assistant Professor in Neurosurgery, Physiology, and Biomedical Engineering Mayo Clinic   
2009 - 2014 Associate Professor in Neurosurgery, Physiology, and Biomedical Engineering Mayo Clinic   
2014 - present Professor in Neurosurgery, Physiology, and Biomedical Engineering Mayo Clinic   
  
Honors and Other Professional Activities   
2001 New England Neurosurgical Society: William Scoville Resident Award   
2002 Thomas P. Almy, M.D. Resident Teacher of the Year Award: Dartmouth Medical School   
2004 Dartmouth Neuroscience Day Outstanding Presentation Award   
2004 American Association of Neurological Surgeons: Phillip Gildenberg Award   
2005 Academic Enhancement Grant-Dartmouth Medical School   
2005 Hitchcock Foundation Research Grant   
2005 Neurosurgery Research and Education Foundation / Medtronic Grant   
2006 Mayo Foundation Grant   
2007 Mayo New Investigator Grant   
2008 - 2011 Research Early Career Development Award for Clinician Scientists - Mayo Clinic   
2015 Distinguished Team Science Award, Mayo Clinic Enterprise wide   
2001 - present Congress of Neurological Surgery, resident member   
2001 - present American Association of Neurological Surgery, resident member   
2003 - present American Society for Stereotactic and Functional Neurosurgery, member   
2003 - present Young Neurosurgeons Executive Committee, member   
2004 - present Society for Neuroscience, regular member   
  
C. Contributions to Science   
1. DBS-evoked neurochemical recording in animals and humans.   
With its potential to individualize treatment, improve outcomes, and save costs, the development of a “smart” closed-loop DBS system with brain-based feedback control has generated great attention and interest. To initiate this research, my laboratory developed a neurochemical sensing device called WINCS (Wireless Instantaneous Neurochemical Concentration Sensing) and a neural stimulator called MINCS (Mayo Investigational Neuromodulation Control System). WINCS uses fast-scan cyclic voltammetry for real-time monitoring of the release of a variety of neurochemicals in vivo, including dopamine and adenosine. WINCS is wireless, has adjustable stimulation and acquisition parameters, and can transmit a graphical representation of neurochemical release data via a Bluetooth transceiver. MINCS is a wireless stimulator that can generate user-defined patterns of stimulation that can be integrated with the WINCS chemical sensing protocols. This allows the detection of neurochemical changes in the brain during the application of DBS and has allowed us to study the relationships between patterns of neural stimulation and neurochemical release. These studies will eventually provide information necessary for a smart DBS system in which control over neural stimulation is based on brain activity. We have now developed the next generation of WINCS, called WINCS Harmoni for animal research, which combines WINCS and MINCS capabilities in a miniaturized integrated circuit format. The new design has four neurochemical sensing channels, a customizable neurostimulator, and is consistent with all current industry standards for medical device safety. We have tested and evaluated the functionality and safety in a small (rodent) and large animal models (swine).   
  
a. Bledsoe JM, Kimble CJ, Covey DP, Blaha CD, Agnesi F, Mohseni P, Whitlock S, Johnson DM, Horne AE, Bennet KE, Lee KH, Garris PA. Development of the Wireless Instantaneous Neurochemical Concentration Sensor system for intraoperative neurochemical monitoring using fast-scan cyclic voltammetry. J Neurosurg. 2009 111(4):712-23.   
b. Van Gompel JJ, Chang SY, Goerss SJ, Kim IY, Kimble CJ, Bennet KE, Lee KH. Development of intraoperative electrochemical detection: Wireless Instantaneous Neurochemical Concentration Sensor for deep brain stimulation feedback. Neurosurg Focus. 2010 29(2):E6.   
c. Griessenauer CJ, Chang SY, Tye SJ, Kimble CJ, Bennet KE, Garris PA, Lee KH. Wireless Instantaneous Neurochemical Concentration Sensor system: electrochemical monitoring of serotonin using fast-scan cyclic voltammetry—a proof-of-principle study. J Neurosurg. 2010 113(3):656-65.   
d. Chang SY, Kimble CJ, Kim IY, Paek SB, Kressin KR, Boesche JB, Whitlock SV, Eaker DR, Kasasbeh A, Horne AE, Blaha CD, Bennet KE, Lee KH. Development of the Mayo Investigational Neuromodulation Control System: toward a closed-loop electrochemical feedback system for deep brain stimulation. J Neurosurg. 2013 119(6):1556-65.   
  
2. Combining DBS with neuroimaging in animals and humans (NIH R01 NS 70872-1)   
To better understand the fundamental relationships between neural activation, neurochemical transmission, and clinical outcomes of DBS, our laboratory has combined two powerful technologies—blood oxygen level-dependent, fMRI (BOLD signal) to monitor neural network activation, and wireless instantaneous neurochemical concentration sensing (WINCS). Used together, these two techniques can give an accurate real-time picture of the DBS-evoked circuitry activation and the neurochemical changes that are likely involved in this activation. We began by using fMRI-BOLD brain regions that are activated during DBS in a large animal (swine and non-human primate). Having characterized the DBS response in the animal brain and similar experiments in patients undergoing DBS surgery for Parkinson’s disease, we are now extending these experiments to study brain circuitry activation and neurochemical release in patients undergoing DBS surgery for neuropsychiatric disorders. Using a multi-voxel pattern analysis, we have found that areas of BOLD activation change as a function of DBS electrode activated (e.g. target) and stimulation parameters used (e.g. limbic/association cortex vs somatomotor cortex) with implications for clinical outcomes and adverse effects. These studies have provided, and will continue to provide, important insights into the optimal targets within a targeted brain structure and represent a first step toward the development of an objective functional biomarker for clinical DBS.   
  
a. Min HK, Hwang SC, Marsh MP, Kim I, Knight E, Striemer B, Felmlee JP, Welker KM, Blaha CD, Chang SY, Bennet KE, Lee KH. Deep brain stimulation induces BOLD activation in motor and non-motor networks: an fMRI comparison study of STN and EN/GPi DBS in large animals. Neuroimage. 2012 63(3):1408-20.   
b. Knight EJ, Testini P, Min H, Gibson WS Gorny KR, Favazza CP, Felmlee JP, Kim I, Welker KM, Clayton DA, Klassen BT, Chang S-y, Lee KH. Motor and nonmotor circuitry activation induced by subthalamic nucleus deep brain stimulation in Parkinson’s disease patients: Intraoperative functional magnetic resonance imaging for deep brain stimulation. Mayo Clin Proc. 2015 90(6):773-85.   
c. Paek SB, Min HK, Kim I, Knight EJ, Baek JJ, Bieber AJ, Lee KH, Chang SY. Frequency-dependent functional neuromodulatory effects on the motor network by ventral lateral thalamic deep brain stimulation in swine. Neuroimage. 2015 105:181-8.   
d. Min H-K, Ross EK, Jo HJ, Cho S, Settella ML, Jeong JH, Duffy PS, Chang S-Y, Bennet KE, Blaha CD, Lee KH. Dopamine release in the nonhuman primate caudate and putamen depends upon site of stimulation in the subthalamic nucleus. J Neurosci 2016 36(22):6022-6029.   
  
3. Diamond electrodes for neurochemical sensing (NIH R01 NS 75013-1).   
The overall goals of our laboratory in determining DBS mechanisms require chronic studies of neurochemical changes evoked by DBS under various conditions (e.g., stimulator on and off; stimulation parameter changes; contacts activated). In addition, should a future closed-loop device use neurochemical feedback, a recording electrode with proven longevity and durability will be a requirement. By its very nature, recording neurochemical changes exposes electrodes to the extracellular environment in the brain. Today’s micro-carbon fiber electrodes cannot long survive that corrosive environment and exhibit relatively low tensile strength.   
Diamond is highly resistant to corrosion. Pure diamond is an insulator, but when adding small amounts of boron, gives it conductive properties while retaining its strength and corrosion resistance. The coating of diamond with other materials is a well-known industrial process. Our laboratory, with the Mayo Division of Engineering, have built a reactor for the chemical vapor deposition of boron-doped diamond, and we have manufactured our first diamond-coated electrodes specifically for DBS research. In 2014, we received a BRAIN Initiative grant from the NIH to continue this work and now have successfully generated a very unique set of electrodes that demonstrate versatility and sensitivity in the laboratory. Following animal tests, this electrode would have wide applicability for use in DBS research aimed at understanding mechanisms of pathologic neural activity, DBS mechanisms, and as potential input for a closed-loop DBS system.   
  
a. Marsh MP, Koehne JE, Andrews RJ, Meyyappan M, Bennet KE, Lee KH. Carbon nanofiber multiplexed array and Wireless Instantaneous Neurotransmitter Concentration Sensor for simultaneous detection of dissolved oxygen and dopamine. Biomed Eng Lett. 2012 2(4):271-277.   
b. Bennet KE, Lee KH, Kruchowski JN, Chang SY, Marsh MP, Van Orsow AA, Paez A, Manciu FS. Development of conductive boron-doped diamond electrode: a microscopic, spectroscopic, and voltammetric study. Materials. 2013;6(12):5726-41.   
c. Bennet KE, Tomshine JR, Min HK, Manciu FS, Marsh MP, Paek SB, Settell ML, Nicolai EN, Blaha CD, Kouzani AZ, Chang SY, Lee KH. A diamond-based electrode design for detection of neurochemicals in the human brain. Front Hum Neurosci. 2016 Mar 15;10:102. PMID: 27014033.   
  
4. DBS for the treatment of psychiatric disorders.   
DBS is currently approved for the treatment of certain movement disorders such as Parkinson’s disease and is under investigation as a treatment option for other neurologic conditions. We are working to expand the application of DBS technology for the treatment of a range of psychiatric conditions, including OCD, depression, chronic pain, and addiction, as well as to Tourette’s syndrome. Recent advances in brain imaging techniques and pharmacotherapies have helped elucidate the biologic changes that are associated with complex psychiatric conditions. Current evidence proposes that these disorders are not simply a dysfunction of any single region but rather a failure in the coordination between specific brain regions. Research efforts have therefore focused on defining the organization and structural connectivity of neural circuits associated with these conditions. Metabolic imaging of brain activity by BOLD-fMRI has helped identify cortical and subcortical regions presenting abnormal activity. We have used our expertise in imaging brain activity and in the real-time analysis of neurochemical release to examine changes that take place following the stimulation of DBS targets that might be used for the treatment of neuropsychiatric disease. This information will guide the development of effective therapies for these conditions using the WINCS Harmoni technology described above.   
  
a. Chopra A, Tye SJ, Lee KH, Sampson S, Matsumoto J, Adams A, Klassen B, Stead M, Fields JA, Frye MA. Underlying neurobiology and clinical correlates of mania status after subthalamic nucleus deep brain stimulation in Parkinson's disease: a review of the literature. J Neuropsychiatry Clin Neurosci. 2012 24(1):102-10.   
b. Anderson RJ, Frye MA, Abulseoud OA, Lee KH, McGillivray JA, Berk M, Tye SJ. Deep brain stimulation for treatment-resistant depression: efficacy, safety and mechanisms of action. Neurosci Biobehav Rev. 2012 36(8):1920-33.   
c. Kim JP, Min HK, Knight EJ, Duffy PS, Abulseoud OA, Marsh MP, Kelsey K, Blaha CD, Bennet KE, Frye MA, Lee KH. Centromedian-parafascicular deep brain stimulation induces differential functional inhibition of the motor, associative, and limbic circuits in large animals. Biol Psychiatry. 2013 74(12):917-26.   
d. Gibson WS, Cho S, Abulseoud OA, Gorny KR, Felmlee JP, Welker KM, Klassen BT, Min HK, Lee KH. The impact of mirth-inducing ventral striatal Deep Brain Stimulation on functional and effective connectivity. Cereb Cortex. 2016 Mar 21. [Epub ahead of print] PMID: 27001680   
  
5. Limb Reanimation.   
Neuroprosthetic devices can restore motor function following spinal cord injury by direct electrical stimulation of the neuromuscular system. Unfortunately, conventional neuroprosthetic techniques are limited by a myriad of factors that include, but are not limited to, a lack of characterization of non-linear input/output system dynamics, mechanical coupling, a limited number of degrees of freedom, power consumption, device size, and rapid onset of muscle fatigue. Our lab is working to improve intraspinal microstimulation (ISMS), which is believed to be capable of producing longer-lasting muscle contractions, at least in part, by the lower stimulation amplitudes associated with direct stimulation of spinal circuits. However, ISMS relies on external anatomical landmarks and can only provide 1-2 mm of accuracy. As a result, anatomical differences and variations in surgical strategy and skill can affect neuronal targeting and activation, which can compromise functional outcomes and prevent translation of this technology into clinical applications. Our laboratory has developed an image-guided system for targeted delivery of microelectrodes into the spinal cord. This system will ensure optimal microstimulation of target motor neuron populations, improve selectivity and control of motor function, maximize clinical benefits, and minimize adverse effects. Moreover, this stereotactic delivery system is adaptable for a host of clinical applications such as chemotherapy, gene therapy, and stem cell transplantation.   
  
a. Hachmann JT, Jeong JH, Grahn PJ, Mallory, GW, Evertz LQ, Bieber AJ, Lobel DA, Bennet KE, Lee KH, Luján JL. Large animal model for development of functional restoration paradigms using epidural and intraspinal stimulation. PLoS One. 2013 8(12):e81443.   
b. Mallory GW, Grahn PJ, Hachmann JT, Luján JL, Lee, K.H. Optical stimulation for restoration of motor function after spinal cord injury. Mayo Clinic Proceed. 2015 90(2):300–307.   
c. Grahn PJ, Lee KH, Kasasbeh A, Mallory GW, Hachmann JT, Dube JR, Kimble CJ, Lobel DA, Bieber A, Jeong JH, Bennet KE, Lujan JL. Wireless control of intraspinal microstimulation in a rodent model of paralysis. J Neurosurg. 2015 123(1):232-42.   
d. Grahn PJ, Goerss SJ, Lujan JL, Mallory GW, Kall BA, Mendez AA, Trevathan JK, Felmlee JP, Bennet KE, Lee KH. MRI-guided, stereotactic delivery of intraspinal stimulating electrodes for selective activation of neuromuscular circuitry. Spine (Phila Pa 1976). 2015 Dec 14. [Epub ahead of print]   
  
Complete List of Publications http://www.ncbi.nlm.nih.gov/pubmed?term=Lee%2C%20Kendall%20H[Author]   
  
D. Research Support   
  
Ongoing   
NIH R01 NS 70872-1 (K Lee, PI) 06/2011 - 05/2016 (one year no-cost extension)   
WINCS and DBS   
This project is to understand the underlying mechanism of the therapeutic action of DBS, using simultaneous electrochemical measurement and fMRI methods.   
NIH U01 NS 090455 (Tomshine PI, Lee Co-PI) 09/2014 - 08/2017   
Neurochemical Absolute Concentration Determination with Diamond Electrode   
This project is coupling diamond-based electrodes with novel fast-scan cyclic voltammetry techniques to measure absolute concentrations of neurochemicals in the chronically in vivo in animal models.   
R01 NS 88260 (Chang PI, Lee Co-I) 02/2015 - 01/2019   
Astrocytes and DBS   
This project is examining the role that astrocytes play in the response to deep brain stimulation particularly with regards to the role of astrocytic release of adenosine.   
R01 NS 84975-1 (Lujan PI, K Lee, Co-I) 01/2014 - 12/2018   
Neurochemical Closed-Loop Controller for Smart DBS   
This project is developing a closed-loop controller that uses neurochemical inputs to adjust DBS parameters and improve therapeutic response.   
The Grainger Foundation (K Lee, PI) 07/2015 - 07/2017   
Smart DBS and Electrode Engineering Development   
This project is to develop novel technologies for implantable devices including WINCS, MINCS, WINCS Harmoni, and diamond electrode.   
  
Completed   
R21 NS 87320 (Lujan PI, K Lee, Co-I) 04/2014 - 03/2016   
Targeted Intraspinal Stimulation for Restoration of Limb Movement following Spinal Cord Injury   
This project is developing a targeting strategy for identifying and stimulating motor neuron nuclei associated with specific target movements in a large animal (porcine) model.   
NIH R01 NS 75013-1 (K Lee, PI) 08/2011 - 05/2016   
WINCS/Nanotrode Development for DBS   
This project is developing carbon nanotube-based electrochemical sensing electrodes for use as a nanotrode neurochemical recording electrode.   
K08NS 52232-3 (K Lee, PI) 07/2008 - 12/2013   
Mechanism of Action of Deep Brain Stimulation   
The major goal of this grant was to understand the mechanisms underlying the action of DBS in rat.

***Matthias Krenn, PhD***  
Univ Miss Med Ctr

**CV:**  
A. Personal Statement   
I have the expertise, training, expertise, and motivation necessary to carry out the proposed research project successfully. I have a broad background in electrical stimulation of muscle and nervous tissues, with specific training and expertise in transcutaneous spinal cord stimulation.   
In the early phase of my career, I was strongly involved in electrical stimulation systems for restoration of lower extremity function in paraplegic individuals, with focus on stimulation parameter optimization and neuromuscular assessment using ultrasound imaging, electro- and acceleromyograph. Subsequently, I worked with paraplegic patients with lower motor neuron lesion in a clinical environment. In the project, I contributed to clinical and scientific examinations of subjects from various international rehabilitations centers.   
In the frame of two projects, funded by the Vienna Science and Technology Fund (WWTF LS11-057) and Wings for Life Spinal Cord Research Foundation (WfL-AT-007/11), which were dedicated to modification of spasticity and non-invasive restoration of movement functions in spinal cord injured via neuromodulation, I was responsible for development and application of stimulation and recording technologies and covered the clinical engineering part in all assessment and intervention procedures. The work on both projects was in close collaboration with physiotherapist and physicians. In this involvement, I could gain profound experience in both non-invasive and epidural electrical stimulation for inducing neuromodulation inputs in the posterior roots of the lumbosacral spinal cord. The clinical assessments and interventions were applied in resting and walking conditions, on spinal cord injured as well as in control subjects with the intact central nervous system.   
The transcutaneous spinal cord stimulation is a novel approach for clinical neuromodulation, which requirements specific technological developments and improvements. To refine selectivity of stimulation, I developed a compact computer-controlled stimulation system, which can enable single or multiple segments of an electrode array. The new electrode prototypes could focus on selective or predominant uni- and bilateral segmental stimulation of the lumbosacral posterior-roots. In combination with additional stimulation of peripheral afferent nerve branches extended paradigms for modification of electrically elicited spinal reflexes could be introduced, which refine the assessment of residual functionality of the injured spinal cord, but also support analysis of spinal mechanisms in the intact spinal cord.   
My current research interest is strongly dedicated to applications of electrical stimulation to generate sustained afferent inputs to the spinal networks for improving neuromuscular functions in the lower extremities of spinal cord injured humans. For neuromodulation approaches, a new assessment methodology of the sensory-motor integration will be essential for successful applications in spinal cord injured individuals.   
B. Positions and Honors   
Positions and Employment   
09/2017 – present University of Mississippi Medical Center, Jackson, MS, USA   
Position: Instructor   
10/2015 – 07/2017 Karl Landsteiner University of Health Sciences, Krems, Austria   
Position: Lecturer at the Program for Health Sciences   
12/2015 – 08/2017 Neural Engineering Consulting, Vienna, Austria   
Position: Self-employed consultant   
06/2016 – 09/2016 University of Applied Science Technikum Vienna, Austria   
Position: Lecturer at the Program for Biomedical Engineering   
05/2007 – 09/2015 Medical University of Vienna, Austria   
Position: Research Assistant   
11/2012 – 02/2013 Ludwig Boltzmann Institute, Vienna, Austria   
Electrical Stimulation and Physical Rehabilitation   
Position: Research Assistant   
07/2004 – 11/2004 Fraunhofer Gesellschaft, Erlangen, Germany   
Position: Traineeship at the Department of Image Processing and Medical Technology   
07/2001 – 08/2001 Fraunhofer Gesellschaft, Erlangen, Germany   
Position: Traineeship at the Department of Image Processing and Medical Technology   
Other Experience and Professional Memberships   
• Austrian Society of Biomedical Engineering (Function: Finance auditor)   
• Society for Neuroscience   
• International Society for Functional Electrical Stimulation   
• Committee of the European Medical and Biological Engineering Conference   
Honors   
09/2012 European Analog Design Contest: Texas Instruments, Inc.   
10/2009 Fellowship Award of World Muscle Society   
C. Contribution to Science   
Neuromodulation by electrical stimulation of lumbosacral spinal cord networks   
When the human spinal cord is damaged, surviving neural circuitry caudal to the lesion takes on functional characteristics that may generate pathophysiological motor outputs. Our research aim is to describe lumbosacral spinal networks and its neurophysiological behavior in humans suffering a spinal cord injury. Transcutaneous lumbar spinal cord stimulation (tSCS) can augment the central state of excitability during voluntary treadmill stepping in incomplete spinal cord injured people. On the other side, it is also shown that electrical stimulation of the posterior roots can suppress spasticity. In our publication, we present these different intervention approaches. Furthermore, we continuously generate progress to improve the methodology of transcutaneous spinal cord stimulation, which is essential for safe and efficient applications.   
  
a. Mayr W, Krenn M, Dimitrijevic MR (2016). Epidural and transcutaneous spinal electrical stimulation for restoration of movement after incomplete and complete spinal cord injury. Current Opinion in Neurology, 29(6):721–726   
b. Hofstoetter US, Krenn M, Danner SM, Hofer C, Kern H, McKay WB, Mayr W, Minassian K (2015). Augmentation of voluntary locomotor activity by transcutaneous spinal cord stimulation in motor-incomplete spinal cord injured individuals: A preliminary study. Artificial Organs, 39(10):E176–186   
c. Krenn M, Hofstoetter US, Danner SM, Minassian K, Mayr W (2015). Multi-electrode array for transcutaneous lumbar posterior-root stimulation. Artificial Organs, 39(10):834–40   
Electrical stimulation for therapeutic intervention   
The loss in muscle mass coupled with a decrease in specific force and a shift in fiber composition are hallmarks of aging. Training and regular exercise attenuate the signs of sarcopenia. However, pathologic conditions limit the ability to perform physical exercise. In our study, we addressed whether electrical stimulation is an alternative intervention to improve muscle recovery and defined the molecular mechanism associated with improvement in muscle structure and function. Our study provided evidence that neuromuscular electrical stimulation is a safe method to counteract muscle decline associated with aging. The electrical stimulation therapy could improve muscle torque and functional performances of seniors and increased the size of fast muscle fibers. At the molecular level, electrical stimulation induced up-regulation of IGF-1 and modulation of MuRF-1, a muscle-specific atrophy-related gene. The listed publications cover clinical and biomedical engineering topics.   
  
a. Kern H, Barberi L, Loefler S, Sbardella S, Burggraf S, Fruhmann H, Carraro U, Mosole S, Sarabon N, Vogelauer M, Mayr W, Krenn M, Cvecka J, Romanello V, Pietrangelo L, Protasi F, Sandri M, Zampieri S (2014). Electrical stimulation counteracts muscle decline in seniors, Frontiers in Aging Neuroscience, 6:1–11   
b. Mayr W, Krenn M, …, Kern H (2014). Neuromuscular electrical stimulation for mobility support of elderly. Springer International Publishing, IFMBE Proceedings 44:11–16   
c. Krenn M, Haller M, Bijak M, Unger E, Hofer C, Kern H, Mayr W (2011). Safe Neuromuscular Electrical Stimulator Designed for the Elderly. Artificial Organs, 35:253–256   
Biomedical engineering   
Electrical stimulation of peripheral nerves is a widely applied rehabilitation therapy for neuromuscular disabilities. Engineering advances enabled versatile applications by the new designs noninvasive or implantable devices. Our focus is to advance neuroprosthetic approaches for restoration of nerve functions in movement rehabilitation. In our studies, we present optimized stimulation parameters for efficient activation of neural structures.   
  
a. Kaniusas E, Kampusch S, Thuerk F, Krenn M (accepted). Optimization of waveform shapes for electrical neuromuscular stimulation based on conductive and displacement membrane currents. Artificial Organs   
b. Vargas-Luna JL, Krenn M, Mayr W, Cortés-Ramírez JA (2017). Optimization of interphase intervals to enhance the evoked muscular responses of transcutaneous neuromuscular electrical stimulation. Artificial Organs, 0(1).   
c. Vargas-Luna JL, Krenn M, Loefler S, Kern H, Cortes-Ramirez JA, Mayr W (2015). Comparison of twitch responses during current or voltage controlled transcutaneous neuromuscular electrical stimulation. Artificial Organs, 39(10):868–75   
Complete list of published work:   
http://www.orcid.org/0000-0002-3398-3627   
D. Research Support and/or Scholastic Performance   
Completed Research Support   
Project ID: 01062016 PI: Winfried Mayr Cooperative research program   
Grant Title: Neuromodulation for focal dystonia and spasmodic dysphonia.   
Grant Dates: 2016 - 2017 Role: Co-principal investigator   
  
Project ID: LS11-057 PI: Winfried Mayr Funding Agency: Vienna Science and Technology Fund   
Grant Title: Augmentation of residual neural control by non-invasive spinal cord stimulation to modify spasticity in spinal cord injured people.   
Grant Dates: 2011 - 2015 Role: Supported   
    
Project ID: WFL-AT-12/12 PI: Winfried Mayr Funding Agency: Wings for Life   
Grant Title: Non-invasive spinal cord stimulation and assisted treadmill stepping to generate rhythmic activities in motor complete spinal cord injured people: Control of produced motor patterns.   
Grant Dates: 2011 - 2013 Role: Supported   
  
Project ID: N00033 PI: Winfried Mayr Funding Agency: European Union Interreg IVa   
Grant Title: MOBIL Mobility of Elderly.   
Grant Dates: 2009 - 2014 Role: Supported   
  
Project ID: 070431022 PI: Winfried Mayr Funding Agency: Icelandic Research Fund   
Grant Title: Development of a Facial Video Recording System for fMRI Scanners.   
Grant Dates: 2007 - 2008 Role: Supported   
Scholastic Performance   
05/2007 – 09/2015   
Doctoral Program of Applied Medical Science at the Medical University of Vienna, Austria.   
Graduated with distinction   
  
10/1999 – 04/2007   
Master degree course in electrical engineering at the Vienna University of Technology, Austria.   
Graduated with distinction   
  
09/1993 – 06/1998   
Higher Technical School in St. Poelten, Austria   
Graduated with distinction

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**STEEL Acute Pediatric Myelitis: Diagnosis, differentiation and management**

Thursday, May 03, 2018 12:45 PM - 02:15 AM

***Jan-Mendelt Tillema, MD***  
Mayo Clinic Children's Center

**CV:**  
Publications:   
4. Tillema JM, Hopkins S, Leach JL. Imaging of acquired demyelination disorders in childhood. Journal of Pediatric Neuroradiology. 2012.   
  
5. Tillema, JM, Pirko, I. Neuroradiological evaluation of demyelinating disease. Therapeutic Advances in Neurological Disorders. 2012.   
  
6. Tillema JM, Renaud DL. Leukoencephalopathies in adulthood. Semin Neurol. 2012 Feb; 32(1):85-94. Epub 2012 Mar 15. PMID:22422211 DOI:10.1055/s-0032-1306391   
  
7. Tillema JM, Leach JL, Krueger DA, Franz DN. Everolimus alters white matter diffusion in tuberous sclerosis complex. Neurology. 2012 Feb 21; 78(8):526-31. Epub 2012 Jan 18. PMID:22262746 DOI:10.1212/WNL.0b013e318247ca8d   
  
8. Greiner HM, Tillema JM, Hallinan BE, Holland K, Lee KH, Crone KR. Corpus callosotomy for treatment of pediatric refractory status epilepticus. Seizure. 2012 May; 21(4):307-9. Epub 2012 Feb 11. PMID:22326839 PMCID:3513761 DOI:10.1016/j.seizure.2012.01.010   
  
9. Tillema JM, McKeon A. The spectrum of neuromyelitis optica (NMO) in childhood. J Child Neurol. 2012 Nov; 27(11):1437-47. Epub 2012 Aug 01. PMID:22859697 DOI:10.1177/0883073812451495   
  
10. Tillema JM, Leach J, Pirko I. Non-lesional white matter changes in pediatric multiple sclerosis and monophasic demyelinating disorders. Mult Scler. 2012 Dec; 18(12):1754-9. Epub 2012 May 28. PMID:22641299 DOI:10.1177/1352458512447527   
  
11. Tillema JM, Hopkins S, Rodriguez M, Leach JL. Imaging of multiple sclerosis and related acquired demyelinating disorders in childhood Journal of Pediatric Neuroradiology. 2013; 2: (1)57-72.   
  
12. Tillema JM, Pirko I. Neuroradiological evaluation of demyelinating disease. Ther Adv Neurol Disord. 2013 Jul; 6: (4)249-68. PMID:23858328 PMCID:3707351 DOI:10.1177/1756285613478870   
  
13. Tillema JM, Renaud D, Mark Keegan B. A CNS multifocal disease: Important diagnostic considerations regarding multiple sclerosis. Mult Scler Relat Disord. 2014 May; 3(3):402-7. Epub 2013 Nov 14 PMID:25876481 DOI:10.1016/j.msard.2013.10.009   
  
14. Daams M, Weiler F, Steenwijk MD, Hahn HK, Geurts JJ, Vrenken H, van Schijndel RA, Balk LJ, Tewarie PK, Tillema JM, Killestein J, Uitdehaag BM, Barkhof F. Mean upper cervical cord area (MUCCA) measurement in long-standing multiple sclerosis: relation to brain findings and clinical disability. Mult Scler. 2014 Dec; 20(14):1860-5. Epub 2014 May 08. PMID:24812042 DOI:10.1177/1352458514533399   
  
15. Casper TC, Rose JW, Roalstad S, Waubant E, Aaen G, Belman A, Chitnis T, Gorman M, Krupp L, Lotze TE, Ness J, Patterson M, Rodriguez M, Weinstock-Guttman B, Browning B, Graves J, Tillema JM, Benson L, Harris Y, US Network of Pediatric Multiple Sclerosis Centers. The US Network of Pediatric Multiple Sclerosis Centers: Development, Progress, and Next Steps. J Child Neurol. 2015 Sep; 30: (10)1381-7. PMID:25270659 PMCID:4379142 DOI:10.1177/0883073814550656   
  
16. Tillema JM, Derks MG, Pouwels PJ, de Graaf P, van Rappard DF, Barkhof F, Steenweg ME, van der Knaap MS, Wolf NI. Volumetric MRI data correlate to disease severity in metachromatic leukodystrophy. Ann Clin Transl Neurol. 2015 Sep; 2: (9)932-40. PMID:26401514 PMCID:4574810 DOI:10.1002/acn3.232   
  
17. McDonald J, Graves J, Waldman A, Lotze T, Schreiner T, Belman A, Greenberg B, Weinstock-Guttman B, Aaen G, Tillema JM, Hart J, Lulu S, Ness J, Harris Y, Rubin J, Candee M, Krupp LB, Gorman M, Benson L, Rodriguez M, Chitnis T, Mar S, Barcellos LF, Laraia B, Rose J, Roalstad S, Simmons T, Casper TC, Waubant E. A case-control study of dietary salt intake in pediatric-onset multiple sclerosis. Mult Scler Relat Disord. 2016 Mar; 6: ()87-92. PMID:27063630 PMCID:4830915 DOI:10.1016/j.msard.2016.02.011   
  
18. Tillema JM, Hulst HE, Rocca MA, Vrenken H, Steenwijk MD, Damjanovic D, Enzinger C, Ropele S, Tedeschi G, Gallo A, Ciccarelli O, Rovira A, Montalban X, de Stefano N, Stromillo ML, Filippi M, Barkhof F, MAGNIMS Study Group. Regional cortical thinning in multiple sclerosis and its relation with cognitive impairment: A multicenter study. Mult Scler. 2016 Jun; 22: (7)901-9. PMID:26432859 DOI:10.1177/1352458515607650   
  
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**CV:**  
Surgical Management of Ambiguous Genitalia 09/2012   
Pediatric Days   
Chicago, Illinois   
  
Cost Savings from not catheterizing newborns with spina bifida. 03/2012   
Podium with WT Snodgrass, MA Jacobs, and PC Gargollo.   
Second World Congress on Spina Bifida   
Las Vegas, Nevada   
  
Durability of continence analysis in children with neurogenic bladder undergoing sling without augmentaion. 03/2012   
Podium with MA Jacobs, NC Bush, PC Gargollo, and WT Snodgrass.   
Second World Congress on Spina Bifida   
Las Vegas, Nevada   
  
Urodynamic-based selective management in children with myelodysplasia from birth to age 3 years. 03/2012   
Podium with NG Cost, WT Snodgrass, and PC Gargollo.   
Second World Congress on Spina Bifida   
Las Vegas, Nevada   
  
Single-trocar laparoscopic herniorrhaphy in children. 05/2012   
Video with PC Gargolla, R Minkes, WT Snodgrass, and MA Jacobs   
AUA Annual Meeting   
Atlanta, Georgia   
  
Comprison of open and robot-assisted appendicovesicostomy, bladder neck reconstruction, and bladder neck sling. 03/2012   
Podium with MJ Selsant, A Bagrodia, WT Snodgrass, and PC Gargollo.   
Second World Congress on Spina Bifida   
Las Vegas, Nevada   
  
Febrile urinary tract infections in infants with spina bifida. 05/2012   
Moderated poster with PC Gargollo, MA Jacobs, and WT Snodgrass.   
AUA Annual Meeting   
Atlanta, Georgia   
  
Normative Penile Antrhopometry in Infants. 05/2013   
Moderated poster with D Dajusta, LA Baker, WE Snodgrass, and NC Bush   
Society of Pediatric Urology/AUA Annual Meeting   
San Diego, California   
  
Pediatric robotic-assisted laporaoscopic pyeloplasty in horseshoe kidney. 05/2013   
Video with D Dajusta and PC Gargollo   
AUA Annual Meeting   
San Diego, California   
  
Surgical Intervention for Primary Hyperoxaluria: A Single Institution Series. 05/2013   
Moderated poster with A Carrasco and A Krambeck   
AUA Annual Meeting   
San Diego, California   
  
UTI in children: when and how to work up and follow up. 11/2012   
Mayo Clinical Reviews   
Rochester, Minnesota   
  
Febrile UTI in children: controversies, work up and follow up. 08/2013   
Family Medicine Grand Rounds   
Bismarck, North Dakota   
  
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19. Cost NG, DaJusta DG, Granberg CF, Cooksey RM, Laborde CE, Wickiser JE, Gargollo PC. Robot-assisted laparoscopic retroperitoneal lymph node dissection in an adolescent population. J Endourol. 2012 Jun; 26: (6)635-40. PMID:22142250 DOI:10.1089/end.2011.0214   
  
20. Granberg CF, Baker LA. Urolithiasis in children: surgical approach. Pediatr Clin North Am. 2012 Aug; 59(4):897-908. Epub 2012 Jun 22. PMID:22857836 DOI:10.1016/j.pcl.2012.05.019   
  
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Book Chapters   
1. Granberg CF, Gettman MT. Notes: Access and exit. In: Smith AD; et al, editor. Smith's textbook of endourology. 3rd Edition. Chichester; Hoboken: Wiley-Blackwell; 2012. p. 1258-65.   
  
2. Granberg CF, Humphreys Mr, Gettman MT. Urologic Applications of NOTES. In: Kalloo AN, Marescaux J, Zorron R. Natural Origice Translumenal Edoscopic Surgery (NOTES). Wiley-Blackwell; 2012. p. 181.   
  
3. Granberg CF, Gettman MT. NOTES: Laboratory work. In: In: Scar-less surgery: NOTES, transumbilical, and others. 2013. p. 171-81.

***Sherilyn Driscoll, MD***  
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**CV:**  
Pediatric Burns 01/2012   
Pediatric Rehab Medicine National Fellows Webinar Lecture Series   
  
Mayo Clinic Children's Center: Update 09/2013   
Mayo Clinic Alumni Association 68th Annual Meeting   
Rochester, Minnesota   
  
Managing Long-Term Effects of Treatment for Children: Expert Panel 05/2014   
Mayo Clinic Cancer Center: Brain Tumor Patient and Family Education Symposium   
Rochester, Minnesota   
  
Plagiocephaly-to helmet or not to helmet 09/2014   
Mayo Clinic Pediatric Days   
Chicago, Illinois   
  
MOC Program Requirements 01/2015   
American Board of PM&R   
Winter Board meeting   
Hawaii   
  
Gait Disorders in Children: Walkin' the Walk 11/2012   
American Academy of Physical Medicine and Rehabilitation Annual Assembly   
Atlanta, Georgia   
  
Building a Knowledge Management Infrastructure 04/2014   
Children's Health Care Organizational Transformation Conference   
Atlanta, Georgia   
  
No Pain, No Gain: Exercise in Children With Chronic Pain 11/2014   
American Academy of Physical Medicine and Rehabilitation Annual Assembly   
San Diego, California   
  
ECMO: Ambulation is possible 11/13/2014   
American Academy of PM&R   
Four consecutive adolescent patients with lumbar radiculopathies 02/2012   
Association of Academic Physiatrists   
Las Vegas, Nevada   
  
A pediatric spinal cord injured patient returns home to Haiti. 04/2012   
ASIA 38th Annual Scientific Meeting   
Denver, Colorado   
  
Delayed diagnosis of a pediatric thoracic spinal cord tumor. 04/2012   
ASIA 38th Annual Scientific Meeting   
Denver, Colorado   
Association of Academic Physiatrists   
New Orleans, Louisiana   
  
Multispecialty Partnership Reduces Evaluation Period for Complicated Diagnoses Beyond Tenfold 10/2013   
Children's Hospital Association annual meeting   
New Orleans, Louisiana   
  
Comprehensive Retrospective Case Series of Individuals with Limbus Fractures: Presentation, Diagnosis, & Treatment 10/2014   
American Academy of Pediatrics National Conference   
San Diego, California   
  
Not Your Typical Pain in the Back: Adolescent Back Pain That Requires a Second Look 10/2014   
American Academy of Pediatrics   
San Diego, California   
  
Wrestlers with Limb Deficiencies: A Survey and Participation Considerations 10/2014   
American Academy of Pediatrics National Conference   
San Diego, California   
  
Comprehensive Retrospective Case Series of Individuals with Limbus Fractures: Presentation, Diagnosis, & Treatment 11/2014   
American Academy of Physical Medicine and Rehabilitation Annual Assembly   
San Diego, California   
  
  
A patient-centered approach to improving care in the Pediatric Aerodigestive Practice 05/2012   
Mayo Clinic Quality and Systems Engineering Conference   
Rochester, Minnesota   
  
’Constraint-induced Movement Therapy During Acute Rehabilitation for Hemiparesis Following Hemispherectomy in Children: A Case Series 11/2012   
American Academy of Physical Medicine and Rehabilitation Annual Assembly   
Atlanta, Georgia   
  
Persistent Flaccid Paraparesis Following Lightning Strike in a Pediatric Patient 03/2013   
  
University of Manitoba   
Visiting lecturer   
Internal Medicine Grand Rounds and Pediatric PM&R Medicine Section Rounds   
Winnepeg, Canada 04/2016   
  
5. Driscoll, SW. Osteogenesis Imperfecta. PM&R Knowledge Now Available as http//nowaapmrorg/peds/musculoskeletal/Pages/Osteogenesis-Imperfectaaspx. August 7, 2012.   
  
6. Landry BW, Driscoll SW. Physical activity in children and adolescents. PM R. 2012 Nov; 4(11):826-32. PMID:23174545 DOI:10.1016/j.pmrj.2012.09.585   
  
7. Kizilbash SJ, Ahrens SP, Bruce BK, Chelimsky G, Driscoll SW, Harbeck-Weber C, Lloyd RM, Mack KJ, Nelson DE, Ninis N, Pianosi PT, Stewart JM, Weiss KE, Fischer PR. Adolescent fatigue, POTS, and recovery: a guide for clinicians. Curr Probl Pediatr Adolesc Health Care. 2014 May-Jun; 44(5):108-33. PMID:24819031 DOI:10.1016/j.cppeds.2013.12.014   
  
8. Landry BW, Fischer PR, Driscoll SW, Koch KM, Harbeck-Weber C, Mack KJ, Wilder RT, Bauer BA, Brandenburg JE. Managing Chronic Pain in Children and Adolescents: A Clinical Review. PM R. 2015 Nov; 7: (11 Suppl)S295-315. PMID:26568508 DOI:10.1016/j.pmrj.2015.09.006   
  
9. Baria MR, Terry MJ, Driscoll SW, Andrews KL, Soma DB, Prideaux CC. Wrestlers with Limb Deficiencies: A Descriptive Study. Am J Phys Med Rehabil. 2015 Dec; 94: (12)1052-7. PMID:25888658 DOI:10.1097/PHM.0000000000000295   
  
10. Robinson LR, Driscoll S, Sabharwal S, Raddatz M, Chiodo AE. Does Delay in Taking the American Board of Physical Medicine and Rehabilitation Certification Examinations Affect Passing Rates? Am J Phys Med Rehabil. 2016 Oct; 95: (10)725-9. PMID:27003195 DOI:10.1097/PHM.0000000000000465   
  
11. Robinson LR, Sabharwal S, Driscoll S, Raddatz M, Chiodo AE. How Do Candidates Perform When Repeating the American Board of Physical Medicine and Rehabilitation Certification Examinations? Am J Phys Med Rehabil. 2016 Oct; 95: (10)718-24. PMID:27003196 DOI:10.1097/PHM.0000000000000470   
  
  
  
  
Book Chapters   
1. Murphy KP, Wunderlich CA, Pico EL, Driscoll SW, Moberg-Wolff E, Rak M, Nelson MR. Orthopedics and musculoskeletal conditions. In: Alexander MA; Matthews DJ editor. Pediatric rehabilitation: principles and practice. 4th Edition. New York: Demos Medical; 2010. p. 361-423.   
  
2. Driscoll SW, Quinones-Pagan V, Savage R, Grisham S. Life Care Planning for the Child with Acquired Brain Injury In: Pediatric Life Care Planning and Case Management 2nd Edition ed. 2011.   
  
3. Murphy KP, Wunderlich CA, Pico EL, Driscoll SW, Moberg-Wolff E, Rak M, Nelson MR. Orthopedics and musculoskeletal conditions. In: Alexander MA; Matthews DJ editor. 5th ed. Pediatric rehabilitation: principles and practice. . New York: Demos Medical; 2015. p. 283.   
  
  
  
Audio/Video/CD-ROM/etc.   
1. Kizilbash S, Harrison T, Wilder R, Driscoll S, Bruce B, Fischer P. Persistent Pediatric Pain: New Paradigms, Improved Prognoses. Available at http://www.hcplive.com/publications/pain-management/2012/february-2012/Persistent-Pediatric-Pain-New-Paradigms-Improved-Prognoses. Pain Management. 2012 Feb 20:12-8.   
  
Abstracts:   
3. \* Kessler S, So N, Reeves R, Driscoll S A pediatric spinal cord injured patient returns home to Haiti. A pediatric spinal cord injured patient returns home to Haiti. Topics in Spinal Cord Rehab.. 2012; 18: (1 Supp)S242.   
  
4. \* Kessler S, Driscoll S. Delayed diagnosis of a pediatric thoracic spinal cord tumor. Topics in Spinal Cord Rehab 18 (. 2012; 1 Supp):S241.   
  
5. Curtiss H, Driscoll S. Case report: Adolescent lumbar radiculopathy. American Journal of Physical Medicine and Rehabilitation. March 2012; 91(3)(Suppl 1:a48).   
  
6. Driscoll S, Landry B. Constraint-induced Movement Therapy During Acute Rehabilitation for Hemiparesis Following Hemispherectomy in Children: A Case Series PM&R. 3/2013; 4:S336.   
  
7. Lueders D, Brandenburg J, Driscoll S. Persistent Flaccid Paraparesis Following Lightning Strike in a Pediatric Patient. American Journal of Physical Medicine and Rehabilitation. 2013 Mar; 92(3)(Suppl 1:a50).   
  
8. Conlee EM, Driscoll SW, McIntosh AL, Brandenburg JE. Comprehensive Retrospective Case Series of Individuals with Limbus Fractures: Presentation, Diagnosis. PM&R. 2014; 6(9):S175-S176.   
  
9. Brandenburg JE, Fredericks WH, Driscoll SW, Wetjen NM, Landry BW, Rundquist DK, Koch KM, Shubert , T. Selective Dorsal Rhizotomy: It’s Not All about the Walk American Journal of Physical Medicine & Rehabilitation.2016;95(3, Supplement 1):A110.   
  
  
  
Ask Mayo Expert Model   
1. Primary Author: Mark W, Christopherson MD Input, Recommendations: Lisa Beck RN CNS Jonathan Carter MD Sherilyn Driscoll MD Jason Eldrige MD Mark Friedrich Hurdle MD Bryan Hoelzer MD William Mauck MD Michael Osborne MD Matthew Pingree MD Richard Rho MD James Watson MD Mark Winemiller MD, Dean Wingerchuk MD. Intrathecal baclofen pump management. AME. 2014.   
  
  
Ask Mayo Expert Topic   
1. Driscoll S. Lower Back Pain (Adolescent) AME. 2014; Adolescent).   
  
2. Driscoll S. Spina Bifida (Adult and Pediatric) AME. 2014.   
  
3. Driscoll S. Torticollis (Pediatric) AME. 2014; Pediatric).   
  
4. Driscoll S. Craniosynostosis and Positional Plagiocephaly (Adult and Pediatric) AME. 2015; Adult and Pediatric).   
  
5. Driscoll S. Sensory Processing Difficulties (Pediatric) AME. 2015; Pediatric).   
  
6. Driscoll SW, Larson AN. Toe walking In: AskMayoExpert. 07-28-2016. Available from: http://askmayoexpert.mayoclinic.org

***Brad Landry, DO, MSPT***  
Mayo Clinic Children's Center

**CV:**  
Industrial Medicine   
PM&R journal club   
Rochester, Minnesota   
02/21/2012   
Sensorimotor Peripheral Neuropathy   
Department of Neurology - Electrophysiology Case Conference   
Rochester, Minnesota   
04/10/2012   
Sciatic Intraneural Ganglion Cyst   
Department of Neurology - Electrophysiology Case Conference   
Rochester, Minnesota   
05/11/2012   
Musculoskeletal Workshop for 2nd year Mayo medical students   
Mayo medical school   
Rochester, Minnesota   
06/26/2012   
Lumbar Plexopathy vs. Inflammatory Lumbosacral Radiculoplexus Neuropathy   
Department of Neurology - Electrophysiology Case Conference   
Rochester, Minnesota   
07/11/2012   
Inflammatory Myopathy   
Department of Neurology - Electrophysiology Case Conference   
Rochester, Minnesota   
08/01/2012   
Femoroacetabular Impingement   
PM&R journal club   
Rochester, Minnesota   
08/22/2012   
Amyotrophic Lateral Sclerosis   
Department of Neurology - Electrophysiology Case Conference   
Rochester, Minnesota   
08/22/2012   
ASIA Examination   
PM&R inpatient spine/brain discussion group   
Rochester, Minnesota   
10/22/2012   
Pressure Ulcers - Assessment and Management   
PM&R inpatient spine/brain discussion group   
Rochester, Minnesota   
10/22/2012   
Post-CABG CVA   
PM&R inpatient spine/brain discussion group   
Rochester, Minnesota   
05/07/2013   
Muscular Dystrophy   
PM&R resident didactics   
Rochester, Minnesota   
06/12/2013   
TBI: The Mayo Way   
Department of Neurology - Child Neurology Conference   
Rochester, Minnesota   
11/20/2013   
Dystonia or Spasticity?   
Pediatric PM&R noon conference   
Rochester, Minnesota   
06/03/2014   
Exercise in Kids with Chronic Pain   
PM&R Grand Rounds   
Rochester, Minnesota   
12/10/2014   
Hypermobility: From Pain to Function   
Department of Pediatric Grand Rounds   
Rochester, Minnesota   
01/16/2015   
Musculoskeletal Workshop for 1st year Mayo medical students   
Mayo medical school   
Rochester, Minnesota   
01/21/2015   
Physical Examination of the Child and Infant   
PM&R Resident Didactics   
Rochester, Minnesota   
01/21/2015   
Peds Rehab Medicine   
Department of Physical Medicine and Rehabilitation, Resident Didactics   
02/2016   
  
Spasticity and Wheelchairs 07/29/2017   
United Leukodystrophy Foundation   
Minneapolis, Minnesota   
  
No Pain, No Gain: Exercise in Children with Chronic Pain 11/15/2014   
AAPM&R Annual Conference   
San Diego, California   
  
2. Smith J, Wisniewski SJ, Wempe MK, Landry BW, Sellon JL. Sonographically guided obturator internus injections: techniques and validation. J Ultrasound Med. 2012 Oct; 31: (10)1597-608. PMID:23011623   
  
3. Landry BW, Driscoll SW. Physical activity in children and adolescents. PM R. 2012 Nov; 4(11):826-32. PMID:23174545 DOI:10.1016/j.pmrj.2012.09.585   
  
4. Brandenburg JE, Eby SF, Song P, Zhao H, Landry BW, Kingsley-Berg S, Bamlet WR, Chen S, Sieck GC, An KN. Feasibility and reliability of quantifying passive muscle stiffness in young children by using shear wave ultrasound elastography. J Ultrasound Med. 2015 Apr; 34: (4)663-70. PMID:25792582 PMCID:4369795 DOI:10.7863/ultra.34.4.663   
  
5. Landry BW, Fischer PR, Driscoll SW, Koch KM, Harbeck-Weber C, Mack KJ, Wilder RT, Bauer BA, Brandenburg JE. Managing Chronic Pain in Children and Adolescents: A Clinical Review. PM R. 2015 Nov; 7: (11 Suppl)S295-315. PMID:26568508 DOI:10.1016/j.pmrj.2015.09.006   
  
6. Pittelkow TP, Pagani-Estevez GL, Landry B, Pingree MJ, Eldrige JS. Occipital Neuromodulation: A Surgical Technique with Reduced Complications. Pain Physician. 2016 Sep-Oct; 19: (7)E1005-12. PMID:27676670   
  
Abstracts   
1. Landry BW, Driscoll SW. Constraint-induced Movement Therapy During Acute Rehabilitation for Hemiparesis Following Hemispherectomy in Children: A Case Series. PM&R. Nov 2012.   
  
2. Brandenburg JE, Hoffman AM, Landry B, Chen S, Zhao H, Kingsley-Berg S, Eby S, Song P, An KN. Shear Wave Elastography for Noninvasive Quantification of Passive Muscle Stiffness in Typically Developing Children. PMR. Sept 5, 2013(Suppl S199).   
  
3. Brandenburg JE, Eby S, Song P, Zhao H, Landry B, Chen S, An KN. Direct Quantification of Passive Muscle Stiffness in Children with Cerebral Palsy using Shear Wave Elastography. Developmental Medicine & Child Neurology. 2014.   
  
4. Brandenburg JE, Eby S, Song P, Zhao H, Landry B, Chen S, An KN. Gender and Foot Dominance Do Not Influence Passive Muscle Stiffness of the Gastrocnemius Muscle in Typically Developing Children. PM&R. 2014.   
  
5. Pittelkow TP, Landry BW, Pingree MJ, Eldrige JS. Occipital Neuromodulations: A Mayo Clinic Retrospective Analysis and Procedural Perspective. [Poster]. AAPM Annual Meeting, Phoenix AZ.2014 Mar;   
  
6. Brandenburg JE, Fredericks WH, Driscoll SW, Wetjen NM, Landry BW, Rundquist DK, Koch KM, Shubert , T. Selective Dorsal Rhizotomy: It’s Not All about the Walk American Journal of Physical Medicine & Rehabilitation.2016;95(3, Supplement 1):A110.   
  
7. Snider BS, Rabatin A, Landry B, Bellamkonda E, Schultz B. Acute Inflammatory Demyelinating Polyradiculoneuropathy and Lyme Neuroborreliosis: A Case Report - Poster Presentation Association of Academic Physiatrists.2017;

**134**

**Hands on, Evidence Based Approach to Decreasing pain in the upper Extremity for Individuals with Spinal Cord Injury**

Thursday, May 03, 2018 12:45 PM - 02:15 PM

***Isa McClure, PT, MAPT***  
Kessler Institution for Rehabiliation

**CV:**  
Biographical Sketch   
Name: Isa A. McClure, PT, MAPT   
Position Title: Advance Clinical Specialist, Physical Therapy, Kessler Institute for Rehabilitation   
A. Personal Statement   
I have been a physical therapist for more than 20 years with a focus and dedication to improving the lives of individuals with spinal cord injury and dysfunction. I have a special interest in the treatment and prevention of pressure injuries, as well as mentoring new therapists in these treatments and preventative techniques. For the past 2 years, I have become more involved in Exoskeleton Assisted Walking and working in our Human Performance and Engineering lab with Dr. Gail Forrest.   
I also contribute to the field of spinal cord injury rehabilitation through service with the American Spinal Injury Association where I was Chair for Rehab Standards Committee and am currently a Vice Chair for the Education Committee.   
  
B. Positions   
Kessler Institute for Rehabilitation/Select Medical Corporation   
1199 Pleasant Valley Way   
West Orange, NJ, 07052   
1996-present   
Title: Advanced Clinical Specialist, Spinal Cord Injuries and Ventilator Dependent Spinal Cord Injuries   
  
C. Contribution to Science -   
“The Cost of a Recommended Protocol for Heterotopic Ossification in SCI Rehabilitation.” American Spinal Injury Association, New Mexico, 2017   
  
“A Case Report: Utilizing Mobile Phone Technology for Long Distance Home Modification Recommendations.” Academy of Spinal Cord Injury Professional, 2016 Nashville TN   
  
“A Survey of Protective Cushion USAge in Individuals with SCI while Traveling in a Motor Vehicle and on a Commercial Airliner,” The Journal of Spinal Cord Injury Medicine   
  
Spinal Cord Medicine   
Denise I. Campagnolo MD, Steven Kirshblum MD, Mark S. Nash PhD FACSM, Robert F. Heary MD Peter H. Gorman MD   
Physical Therapy chapter contributor   
  
Development of Web Based Durable Medical Equipment Guide, American Spinal Cord Injury Association, 2012   
  
Development of Consumer Guidelines for Choosing a Rehabilitation Facility after Spinal Cord Injury, May, 2013   
  
ASIA Executive Summary and Guidelines for Spinal Cord Injury Rehabilitation, Topics in Spinal Cord Injury, April 2012   
  
“The Extracellular Amino-Terminal Region of the   
Parathyroid Hormone (PTH)/PTH-Related Peptide Receptor Determines the Binding Affinity for Carboxyl-Terminal Fragments of PTH-(1-34). ASBMR, 1993   
  
“Body Weight Supported Treadmill Training in the Acute Rehab Setting.” NJPTA, 2004   
  
“Heterotopic Ossification in Persons with Spinal Cord Injuries from Violence related Causes.” ASIA, 2005   
  
  
SELECTED   
PRESENTATIONS:   
Update on Pressure Injuries and their Staging, Kessler Institute, April 2017   
  
Health and Wellness in Spinal Cord Injury, American Spinal Injury Association, New Mexico, 2017   
  
“Skin and Trauma” Kessler Institute Neuro-trauma Conference, December 2016   
  
Comprehensive, Interdisciplinary Upper Extremity Evaluation and Treatment for in Tetraplegia   
Instructional Course/Symposium, Inter-active (hands on),   
American Spinal Injury Association, 2016 Philadelphia, PA   
  
“Name that Wound!” An Interactive Discussion on the Staging/Prevention and Treatment and Pressure Ulcer in Spinal Cord Injury.   
Academy of Spinal Cord Injury Professional, September, 2015, New Orleans, Louisiana   
  
Stem Cells and Medical Tourism   
SCI Model Centers Leadership Forum, October, 2014   
Atlanta, Georgia   
  
“The Stem Cell Question and the Patient Family Education Series; an Update.”   
Academy of Spinal Cord Injury Professional, September, 2014 St. Louis, Missouri   
  
Prevention and Treatment of Pressure Ulcers in Patients with Spinal Cord Injury: A Transdisciplinary Approach   
American Spinal Injury Meeting, San Antonio Texas 2014   
  
“Splinting the Upper Limb in Tetraplegia,” Instructional Course to be presented at the May, 2013 American Spinal Injury Association Meeting   
  
“Spinal Cord Injury and E-Learning” Presented at the 2012 SCI Model Centers Leadership Forum, October, 2012   
  
“Use of Commercially Available Cushions for Traveling Motor Vehicles after Spinal Cord Injury,”   
American Spinal Cord Injury Association, May 2011   
Academy of Spinal Cord Injury Professional, September, 2011   
  
“Mentoring the New Physical Therapist in Wound Care,” Academy of Spinal Cord Injury Professional, September, 2011   
  
Moderator, Awards Posters, American Spinal Cord Injury Association, May 2011   
  
Moderator, Therapy Interventions, American Spinal Cord Injury Association, April 2012   
  
“Durable Medical Equipment: What Medically Necessary Versus What’s Medically Beneficial,” American Spinal Cord Injury Association, May 2010   
Academy of Spinal Cord Injury Professional, September, 2010   
  
"Novel Wound Care Treatments for Persons with SCI.” Contemporary Forums SCI Conference, March 2009   
  
“High Volt Pulsed Current and Wound Care; A Case Study”   
Wound, Ostomy, Continence Nursing Conference, 2010   
  
“Family Training for the Complex SCI Patient: A Multidisciplinary Approach to managing the Dual Diagnosis Patient,” Contemporary Forums SCI Conference, March 2009   
  
"Aging and the Acute Spinal Cord Injury: The Long Road Home." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
"The Use of High Volt Pulsed Current on a Stage IV Sacral Wound in a Medically Complex Spinal Cord Injury Patient: A Case Study." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
“Use of Specialty Cushions in Full Time Wheelchair Users with Spinal Cord Injury.” ASIA conference, June 2008   
  
"Pressure Mapping of Seating in Motor Vehicles in Full Time Wheelchair Users with Spinal Cord Injury." Congress on Spinal Cord Medicine and Rehabilitation, September 2009.   
  
Development of Spasticity Clinic for Brain Injury and Severe Disorders of Consciousness. 2009-present   
  
Lab Assistant for SCI Evaluation and Treatment   
Techniques, UMDNJ Physical Therapy Students, Kessler Institute for Rehabilitation, 1999-present   
  
Beyond Rehabilitation, Patient and Family Lecture Series, Kessler Institute for Rehabilitation, 1999-present   
  
ALS Support Group, 1999-2001   
  
  
SELECTED RESEARCH: Safety and Efficacy of the Indego Exoskeleton, FDA study, September 2014-present   
  
The Efficacy of Denosumab to Reduce Osteoporosis after Acute Spinal Cord Injury   
US Department of Veteran Affairs   
Rehabilitation and Research Development Service   
Center for Excellence of the Medical Consequences of Spinal Cord Injury   
Current and Ongoing   
  
“Responsiveness of a Neuromuscular Recovery Scale for Spinal Cord Injury: Inpatient and Outpatient Rehabilitation,” 2012-present   
  
Pending IRB Approval: Comparison of Pressure in Airline Seating in Economy and First Class Seating in Fulltime Wheelchair Users with Spinal Cord Injury   
  
Use of Specialty Cushions in Full Time Wheelchair Users with Spinal Cord Injury.   
Platform Presentation, ASIA conference, 2008, 2009, 2010, 2011   
  
"Pressure Mapping of Seating in Motor Vehicles in Full Time Wheelchair Users with Spinal Cord Injury."   
Platform Presentation, ASIA, Congress on Spinal Cord Medicine and Rehabilitation, September, 2009   
  
  
BOOK CHAPTERS/REVIEWS:   
Expert Reviewer   
Pressure Ulcer Prevention and Treatment Following Spinal Cord Injury   
Clinical Practice Guides, Consortium for Spinal Cord Medicine   
Clinical Practice Guidelines, 2014   
  
Peer Review of Wounds/Wound Care, Spinal Cord Injury, Martha Somers.   
Gait, Caregiver Education, Therapeutic Exercise Chapters, Spinal Cord Injury, Steven Kirshblum

***Janelle Carnahan, PT, DPT, ATP***  
Kessler Institute for Rehabilitation

**CV:**  
JANELLE L. CARNAHAN (KENNY), PT, DPT   
555 South Avenue E. Unit 428   
Cranford, NJ 07016   
908-425-3345   
JCarnahan@Kessler-rehab.org   
LICENSURE   
State of New Jersey – 40QA01542800   
State of New York - 030426   
State of Georgia - inactive   
  
EXPERIENCE   
Senior Physical Therapist   
Kessler Institute for Rehabilitation   
• Inpatient Spinal Cord Injury Program   
• Physical Therapy Neuro-Residency Faculty Member   
• Research co-investigator on Pressure relief behaviors and weight shifting activities to prevent pressure ulcers in persons with SCI   
  
Senior Physical Therapist 2014-present   
  
2013-2014   
Mount Sinai Hospital, New York, New York   
• Acute Care Physical Therapy Program and ReWalk Research Program   
  
Physical Therapist 2010-2013   
Shepherd Center, Atlanta, Georgia   
• Outpatient Spinal Cord Injury and NeuroRecovery Network Programs 2012-2013   
• Inpatient Rehabilitation Program 2010-2012   
P   
PPhysical Therapist 2008-2010   
HHelen Hayes Hospital, West Haverstraw, New York   
• Outpatient Neurologic Rehabilitation and Locomotor Training Programs 2009-2010   
• Inpatient Spinal Cord Injury Program 2008-2009   
  
EDUCATION   
Doctor of Physical Therapy 2008   
Sacred Heart University, Fairfield, CT   
BS, Psychology 2006   
Sacred Heart University, Fairfield, CT   
  
ADDITIONAL CERTIFICATIONS   
CPR Basic Live Saving   
APTA Credentialed Clinical Instructor   
Assistive Technology Professional   
  
PROFESSIONAL MEMBERSHIPS   
American Spinal Injury Association   
  
PROFESSIONAL PRESENTATIONS   
Kenny, J., Harvey, L. Weston, M., Lusardi, L. (2009) Enhance Your Stance: Development of a Balance Enhancement Program at Duncaster Life Care Retirement Community. Poster session presented at Combined Sections Meeting of American Physical Therapy Association, Las Vegas, NV.   
  
Carnahan, J., McNair, K. ( April 14, 2016) Comprehensive, Interdisciplinary Upper Extremity Evaluation and Treatment for Incomplete Tetraplegia. Educational Course presentation at American Spinal Injury Association Annual Meeting, Philadelphia, PA.   
Carnahan, J. (April 27, 107) Balancing the Shoulder with Unbalance Innervation. Educational Course presentation at American Spinal Injury Association Annual Meeting, Albuquerque, NM.   
  
Carnahan, J; Garrett, B; McNair, K. Emerging Function in Incomplete Spinal Cord Injury. Advance Magazine. November 2016.

***Keara McNair, MS, OTR/L, BCPR***  
Kessler Institute for Rehabilitation

**CV:**  
Short CV:   
Keara Savage McNair, OTR/L, BCPR   
13511 Cronston Avenue, Belle Harbor, NY 11694 kmsavage@selectmedical.com 917-578-0598   
PROFESSIONAL EXPERIENCE   
Kessler Institute for Rehabilitation West Orange, NJ   
Clinical Specialist Occupational Therapist July 2017- Present   
Senior Occupational Therapist July 2015- June 2017   
Proficient Occupational Therapist July 2014- June 2015   
Staff Occupational Therapist January 2014- June 2014   
  
Medstar National Rehabilitation Hospital Washington, DC   
Staff Occupational Therapist July 2011- July 2013   
  
PROFESSIONAL MEMBERSHIP   
Academy of Spinal Cord Injury Professionals, Therapy Leadership Council, Member since 2015   
American Spinal Injury Association, Member since 2015   
American Occupational Therapy Association Member since 2008   
PUBLICATIONS   
McNair, K., Lutjen, M., Langhamer, K., Nieves, J., & Hreha, K. (2017). Comprehensive, Technology- Based, Team Approach for a Patient with Locked- In Syndrome: A   
Case Report of Improved Function & Quality of Life. Assistive Technology. Published Online June 27, 2017. doi: 10.1080/10400435.2017.135052   
Spinal Cord Injury and Neurological Deficits: Innovative Treatments for   
Incomplete Tetraplegia. ADVANCE for Physical Therapy, October 2016 & ADVANCE for Occupational Therapy, January 2017.   
  
PRESENTATIONS   
Integrating Consumer- Based Technology into An EADL Program. ASCIP Educational   
Conference & Expo. Denver, Colorado, September 2017.   
Electronic Aids to Daily Living. Seton Hall University School of Health and Medical Sciences:   
Occupational Therapy Program; South Orange, NJ; July 2017.   
SCI Clinical Education Series: Bladder Management. Kessler Institute   
for Rehabilitation (West Orange), August 2016.   
SCI Clinical Education Series: Upper Extremity Management. Kessler Institute   
for Rehabilitation (West Orange), May 2016.   
Comprehensive, Technology- Based, Team Approach for a   
Patient with Locked- In Syndrome: A Case Report of Improved Function & Quality of Life. RESNA/ NCART National Conference Poster Sessions, Arlington, VA, July 2016.   
Comprehensive Interdisciplinary Upper Extremity Evaluation & Treatment   
for Tetraplegia: Acute Rehabilitation Evaluation & Treatment Techniques (120- Minute Lecture & 90- Minute Lab) American Spinal Injury Association Annual Scientific Meeting, Education Session, Philadelphia, PA, April 2016.   
  
PROFESSIONAL DEVELOPMENT   
ASCIP Educational Conference & Expo: Rocky Mountain High Expectations for SCI. Denver, Colorado, September 2017.   
Evidence- Based Cancer Rehabilitation Resources and Its Role in Cancer Survivorship; West Orange, NJ, April 2017.   
RESNA/NCART National Conference: Promoting Access to Assistive Technology, Arlington, VA July 2016.   
Webinar: Addressing Challenging Needs: Accessible and Affortable Technology for Those with Cervical Injuries, ASCIP, June 2016.   
Webinar: Keeping Current with EADLs, RIC, May 2016.   
ASIA Annual Scientific Meeting, Philadelphia, PA, April 2016.   
The Complex Shoulder: An Evidence Based Approach for Evaluation and Treatment, Alexandria, VA, September 2015.   
Bioness for the Upper Extremity; West Orange, NJ, December 2014.   
Evidence- Based Physical Agents: Application & Practice; West Orange, NJ, November 2014.   
Restorative Therapies R300 Upper Extremity Ergometer; West Orange, NJ, October 2014.   
Dynamic Taping; Washington, DC, January 2013.   
Neurostructural Taping Technique; Alexandria, VA, October 2012.   
Interdisciplinary Spinal Cord Course, Rehabilitation Institute of Chicago, Chicago, IL   
June 2012.   
  
LICENSURE/ CERTIFICATION   
AOTA Board Certification: Physical Rehabilitation; May 2017   
Registered Yoga Teacher; Integral Yoga 200- hour Basic Teacher Training; July 2013   
Licensed Occupational Therapist in New York State (License # 018122-1)   
Licensed Occupational Therapist in New Jersey (License # 46TR00637300)

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**Advancements in our understanding of manual wheelchair biomechanics: Daily life and Sport**

Thursday, May 03, 2018 03:45 PM - 05:15 PM

***Melissa Morrow, PhD***  
Mayo Clinic

**CV:**  
Publications   
1. Fortune E, Lugade V, Morrow M, Kaufman K. Step count validation of a tri-axial accelerometer during walking and jogging. ASME 2012 Summer Bioengineering Conference, SBC 2012. 2012; 1065-6.   
2. Lugade V, Fortune E, Morrow M, Kaufman K. Validation of static and dynamic activity detection using a triaxial accelerometer and video. ASME 2012 Summer Bioengineering Conference, SBC 2012. 2012; 1067-8.   
3. Stryker LS, Abdel MP, Morrey ME, Morrow MM, Kor DJ, Morrey BF. Elevated postoperative blood glucose   
and preoperative hemoglobin A1C are associated with increased wound complications following total jointarthroplasty. J Bone Joint Surg Am 2013 May 1; 95 (9):808-14, S1-2 PMID: 23636187 DOI: 10.2106/JBJS.L.00494   
Melissa M Morrow, PhD Page 11 of 15   
RE-AIMS 09/08/2017   
4. Hurd WJ, Morrow MM, Kaufman KR. Tri-axial accelerometer analysis techniques for evaluating functional use   
of the extremities. J Electromyogr Kinesiol 2013 Aug; 23 (4):924-9 Epub 2013 Apr 30 PMID: 23642841 PMCID:   
3775661 DOI: 10.1016/j.jelekin.2013.03.010   
5. Morrow MM, Van Straaten MG, Murthy NS, Braman JP, Zanella E, Zhao KD. Detailed shoulder MRI findings   
in manual wheelchair users with shoulder pain. Biomed Res Int. 2014; 2014:769649. Epub 2014 Aug 11. PMID:   
25180192 PMCID: 4142383 DOI: 10.1155/2014/769649   
6. Lugade V, Fortune E, Morrow M, Kaufman K. Validity of using tri-axial accelerometers to measure human movement - Part I: Posture and movement detection. Med Eng Phys 2014 Feb; 36 (2):169-76 Epub 2013 July   
27 PMID: 23899533 PMCID: 3866210 DOI: 10.1016/j.medengphy.2013.06.005   
7. Fortune E, Lugade V, Morrow M, Kaufman K. Validity of using tri-axial accelerometers to measure human movement - Part II: Step counts at a wide range of gait velocities. Med Eng Phys 2014 Jun; 36 (6):659-69 Epub 2014 Mar 20 PMID: 24656871 PMCID: 4030415 DOI: 10.1016/j.medengphy.2014.02.006   
8. Morrow MM, Hurd WJ, Fortune E, Lugade V, Kaufman KR. Accelerations of the waist and lower extremities over a range of gait velocities to aid in activity monitor selection for field-based studies. J Appl Biomech 2014   
Aug; 30 (4):581-5 Epub 2014 Mar 06 PMID: 24610379 PMCID: 4180224 DOI: 10.1123/jab.2013-0264   
9. Fortune E, Morrow MM, Kaufman KR. Assessment of gait kinetics using triaxial accelerometers. J Appl   
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Natural History of Shoulder Pathology in Wheelchair Users. Funded by Eunice Kennedy Shriver National Institute of Child Health and Human Development. (R01 HD 84423)   
08/2015 - 05/2020   
  
Program Director / Principal Investigator   
Development of a personal use seating pressure measurement system. Funded by Department of Defense. ( W81XWH-15-1-0484)   
09/2015 - 08/2018   
  
Co-Program Director / Principal Investigator   
Mobile and Remote Monitoring of Seating Pressure for Wheelchair Users with SCI. Funded by National Institute on Aging. (R21 AG 50640)   
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Development of Technologies to Increase In-Seat Movement to Prevent Sitting-Acquired Pressure Injuries in Wheelchair Users: Development of Technologies to Increase In-Seat Movement to Prevent Sitting-Acquired Pressure Injuries in Wheelchair Users - NIH Relief Grant. Funded by National Institutes of Health   
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Co-Program Director / Principal Investigator   
Evidence for maintaining mobility and quality of life for manual wheelchair users. Funded by Rehabilitation Medicine Research Center   
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***Jill McNitt-Gray, PhD***  
Usc

**CV:**  
Publications:   
Brown, K, Flashner, H, McNitt-Gray, J.L., & Requejo, P. (2017). Modeling wheelchair-users undergoing vibrations, Journal of Biomechanical Engineering.   
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2. Peterson, T.J. & McNitt-Gray, J.L. (2017). Lower limb net joint moments and control priorities during the golf swing,, International Society of Biomechanics, Brisbane, Australia.   
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11. Ramos, C.D., Sidaway, B. & McNitt-Gray, J.L. (2015). The effect of augmented feedback on impulse generation during a quick first step, International Society of Biomechanics, Glasgow, Scotland.   
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19. Brown, K., Flashner, H., McNitt-Gray, J.L., & Requejo, P.S. (2014). Simulating vibrations experienced by wheelchair users using experimental-based modeling, World Congress of Biomechanics, Boston, MA.   
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26. Muller-Karger, C., Wagner, E.V., Maneekomkunwong, S., Brown,K., Flashner, H., Russell, I.M.\*, Requejo, P.S., & McNitt-Gray, J.L. (2013). Representation of shoulder kinematics during multiplane tasks performed by manual wheelchair users, 24th Congress of the International Society of Biomechanics, Natal, Brazil.   
27. Zaferiou, A.M. & McNitt-Gray, J.L. (2013). Individual strategies for generating angular impulse during turn initiation, 24th Congress of the International Society of Biomechanics, Natal, Brazil.   
28. Ramos, C.D., McNitt-Gray, J.L., Mathiyakom, W. (2013). Common multijoint control strategies for generating backward angular momentum in forward and backward translating tasks, 24th International Society of Biomechanics, Natal, Brazil.   
29. Pallis, J. & McNitt-Gray, J.L. (2013). Using sports to attract young women into engineering, American Society for Engineering Education, Atlanta, Georgia.   
30. Zaferiou, A. & McNitt-Gray, J.L. (2012). Mechanisms dancers use to maintain balance and regulate reaction forces when turning. American Society of Biomechanics, Gainesville, Florida.   
31. Ramos, C., Mathiyakom, W., & McNitt-Gray, J.L. (2012). Common control strategies for generating angular impulse in forward and backward translating tasks, American Society of Biomechanics, Gainesville, Florida.   
32. Zaferiou, A. & McNitt-Gray, J.L. (2012). Muscle recruitment and regulation of the reaction forces during a turn task. International Society of Electrokinesiology, Australia.   
33. Mendoza Blanco, M., Requejo, P.S., Mulroy, S., & McNitt-Gray, J.L. (2012). Fatigue effect on load distribution across the upper extremity in individuals with spinal cord injury during manual wheelchair propulsion, 38th American Spinal Injury Association, Denver, CO.   
  
Active Grants:   
PAC-12: Student-Athlete Health and Well-being Grant Program: Overuse injuries / injury prevention: integration of biomechanics-based informatics for prevention of stress fractures. 7/1/2017-6/30/2020. U of Oregon (MHahn, PI), U Colorado-Boulder, Stanford & USC: Principal Investigator of Sub to USC in collaboration with Seth Gamradt, MD. $1,223,197 (Sub to USC: $433,801).   
J.L. McNitt-Gray, Ph.D.   
  
  
Department of Defense, Spinal Cord Injury Research Program (SCIRP) Investigator-Initiated Research Award (DoD, CDMRP SC130030), Evaluating the Integration of Low-Cost Emerging Technology and Personalized Model Simulation Results in the Wheelchair Prescription Process, 10/1/2014-9/30/2017 Principal Investigator   
  
Rancho Los Amigos Research Institute (RRI), -2020) Principal Investigator, Preserving shoulder function and mobility in manual wheelchair users, $44,485. Aim: Preserve shoulder function, improve mobility, and participation in the community in manual wheelchair users with spinal cord injury by improving the wheelchair prescription process and wheelchair propulsion mechanics in realistic contexts.   
  
USA Track and Field, 1/1/2017-12/31/2017, Principal Investigator, Effective mechanisms for regulation of linear and angular momentum during horizontal jump performance in training and competition, $26,667. Aim: improve the performance of horizontal jump performance of top-tier athletes during the Olympic Games and World Championships.   
  
USA Track and Field, 1/1/2017-12/31/2017, Principal InvestigatorAim: Personalizing informational repositories for coaches and athletes to identify best practices for improving performance, $28,677. Aim: Work with coaches and athletes to design and implement a flexible and easy-to-use personalized information repository to facilitate the integration and management of information to improve performance   
  
USC Undergraduate Research Program, 2017, Principal Investigator, Co-PI: Henryk Flashner, Improving performance of activities of daily life.

***Ian Rice, PhD***  
University of Illinois Urbana-Champaign

**CV:**  
Publications   
1. Dysterheft JL, Gioella C & Rice I. (2017) Determinants of Leisure-Time Physical Activity Participation in University Students with Physical Disabilities: A Multi-University Study. Medicine & Science in Sports & Exercise, 49:74-75   
2. Dysterheft, J., Rice, I., Learmonth, Y., Kinnett-Hopkins, D., & Motl, R. (2017). Effects of Daily Physical Activity Level on Manual Wheelchair Propulsion Technique in Full-Time Manual Wheelchair Users During Steady-State Treadmill Propulsion. Arch Phys Med Rehabil. doi:10.1016/j.apmr.2017.01.007   
3. Rice, L & Rice I (2017). Evidenced Based Education Interventions to Preserve Upper Limb Function Among Full Time Manual Wheelchair Users. Medical Research Archives, 5(3).   
4. Rice I, Pohlig R., Dysterheft J & Motl R. (2017). How does Vector Magnitude Obtained from Wrist Worn Actigraphy Relate to Kinetic and Spatiotemporal Measures of Wheelchair Propulsion Technique at Different Speeds. Sports Medicine and Rehabilitation Journal, 2(1), 1013.   
5. Dysterheft JL, C. G., Rice L & Rice I. (2017). Investigating the Outcomes and Perceptions of an Inclusive Aquatic Exercise Class for University Students with Physical Disabilities. Journal of Postsecondary Education and Disability.   
6. Learmonth, Y. C., Kinnett-Hopkins, D., Rice, I. M., Dysterheft, J. L., & Motl, R. W. (2016). Accelerometer output and its association with energy expenditure during manual wheelchair propulsion. Spinal Cord, 54(2), 110-114. doi:10.1038/sc.2015.33   
7. Rice, I., Dysterheft, J., Bleakney, A. W., & Cooper, R. A. (2016). The Influence of Glove Type on Simulated Wheelchair Racing Propulsion: A Pilot Study. Int J Sports Med, 37(1), 30-35. doi:10.1055/s-0035-1555926   
8. Dysterheft JL, L. P., Hubbard E, Jones O, Rice L & Rice I. (2016). A mixed methods exploration of how university students with physical disabilities perceive physical activity and the influence of perceptions on physical activity levels. Cogent Medicine journal. doi:10.1080/2331205X.2016.1196809   
9. Rice I. (2016). Recent Salient Literature Pertaining to the Use of Technology in Wheelchair Sports. Current Physical Medicine and Rehabilitation Reports, 4(4), 329-335.   
10. Rice, L. A., Dysterheft, J. L., Sanders, E., & Rice, I. M. (2016). Short-term influence of transfer training among full time pediatric wheelchair users: A randomized trial. J Spinal Cord Med, 1-9. doi:10.1080/10790268.2016.1149292   
11. Rice, I. M., Wong, A. W., Salentine, B. A., & Rice, L. A. (2015). Differences in participation based on self-esteem in power and manual wheelchair users on a university campus: a pilot study. Disabil Rehabil Assist Technol, 10(2), 102-107. doi:10.3109/17483107.2013.840864   
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20. Moon, Y., Jayaraman, C., Hsu, I. M., Rice, I. M., Hsiao-Wecksler, E. T., & Sosnoff, J. J. (2013). Variability of peak shoulder force during wheelchair propulsion in manual wheelchair users with and without shoulder pain. Clin Biomech (Bristol, Avon), 28(9-10), 967-972. doi:10.1016/j.clinbiomech.2013.10.004   
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22. Laferrier JZ, Rice I., Pearlman J, Sporner M, Cooper RM, Liu H, Cooper RA. (2012). Technology to Improve Sports Performance in Wheelchair Sports. Sports Technology, 5(1-2), 4-19.   
  
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Rice I, Pohlig R, Dysterheft J & Motl R. How does Vector magnitude obtained from wrist worn Actigraphy relate to kinetic and spatiotemporal measures of wheelchair propulsion technique at different speeds? American Spinal Cord Injury Professionals Conference (ASCIP), Denver CO, Sept 3-7, 2017   
Dysterheft, J, Chaparro G, Jones O, Rice LA & Rice, I. Investigating the Outcomes and Perceptions of an Aquatic Exercise Class for University Students with Physical Disabilities. National Association for Adapted Physical Activity (NAFAPA), September 21-23, 2017.   
Dysterheft, J, Chaparro G, & Rice, I. Determinants of Leisure-Time Physical Activity Participation in University Students with Physical Disabilities: A Multi-University Study. World Congress on Exercise is Medicine®, and World Congress on the Basic Science of Exercise and the Brain of the American College of Sports Medicine. Denver CO. May 31, 2017.   
Gacek EA, Pakeltis A, Gaglio A, Daigle S, Jahanian O, Slavens B, Rice I, & Hsiao-Wecksler E. An Investigation of the Effect of Gear Ratio on Manual Wheelchair Kinetics. Midwest American Society of Biomechanics, Grand Rapids, MI. Feb. 23-24, 2017.   
Gaglio A, Daigle S, Gacek EA, Jahanian O, Slavens B, Rice I, & Hsiao-Wecksler E. Validation of an Instrumented Wheelchair Hand Rim” Design of Medical Devices, American Society of Mechanical Engineering, Minneapolis, MN. April 10-13, 2017.   
Rice, L.A., Dysterheft, J., Rice, I.M. Impact of Transfer Training Among Full Time Pediatric Wheelchair Users. International Seating Symposium, Vancouver, Canada, March 1-4, 2016.   
  
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Rice I, Dysterheft J, & Rice L. Influence of Hand rim Wheelchair Propulsion Training in Adolescent Wheelchair Users, a Pilot Study. American Spinal Cord Injury Professionals Conference (ASCIP), Nashville, TN. September 4-7, 2016.   
  
Rice I & Motl R. Physical activity intervention for persons with advanced Multiple Sclerosis. International Seating Symposium (ISS). Nashville TN., 3/1/ 2015.   
  
Learmonth, YC, Rice, IM, Ostler, T, Rice, LA, Motl, RW. Implications for Informing the Design & Delivery of Interventions to Increase Physical Activity & Exercise Behaviors in Advanced Multiple Sclerosis. CMSC ACTRIMS Annual Meeting 2014.   
  
Sosnoff J, Hsiao-Wecksler ET, Rice I, ET Jayaraman C & Moon Y. Variability in Wheelchair Propulsion: A New Window into an Old Problem. American Spinal Cord Injury Professionals Conference (ASCIP). St. Louis, Missouri 8/31-9/3/2014. [Methodological design award winner]   
  
Rice I & Motl R. Physical activity intervention for persons with advanced Multiple Sclerosis International Seating Symposium (ISS) Nashville TN, 3/1/ 2015.   
  
Liao F, Brooks I, Hsieh CW, Rice IM, Jankowska MM, and Jan YK. Assessing complexity of heart rate variability in people with spinal cord injury using local scale exponents. Proceeding of IEEE International Conference on Engineering in Medicine and Biology Society, 2014.   
Learmonth, YC, Rice, IM, Ostler, T, Rice, LA, Motl, RW. Implications for Informing the Design & Delivery of Interventions to Increase Physical Activity & Exercise Behaviors in Advanced Multiple Sclerosis. CMSC ACTRIMS Annual Meeting, 2014.   
  
Rice I, Jayaraman C. & Sosnoff J Effects of Wheelchair Configuration on Manual Wheelchair Propulsion Training in Reducing Injurious Propulsion Biomechanics in Novice Individuals. 29th International Seating Symposium (ISS), Academic Paper Session. Nashville, TN, March, 2013.   
Hsu, I.M., Moon, Y., Jayaraman, C., Rice, I, Sosnoff J & Hsiao-Wecksler E.T Variability of upper extremity kinematics and shoulder pain during wheelchair propulsion: A vector coding analysis. American Society of Biomechanics (ASB). Omaha, NE, September 4-8, 2013.   
Jayaraman, C., Rice I., Moon, Y., Hsu, I.M., Hsiao-Wecksler, H.T., Beck, C & Sosnoff, J.J. A principle component analysis of kinematic variability during wheelchair propulsion. American Society of Biomechanics (ASB). Omaha, NE, September 4-8, 2013.   
Moon, Y., Jayaraman, C., Hsu, I. M., Rice I., M., & Hsiao-Wecksler, E.T & Sosnoff J.J. Variability of peak shoulder force during wheelchair propulsion: The effect on shoulder pain. American Society of Biomechanics (ASB). Omaha, NE, September 4-8, 2013.   
Rice I, Sosnoff J, Jayaraman C, Hsu IM & Hsiao-Wecksler ET. Hand rim force variability during two speeds of wheelchair propulsion. Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, 2012.   
Jayaraman C, Hsu IM, Moon YJ, Hsiao-Wecksler E T, Rice I, Sosnoff J& Beck C. Correlation analysis of upper extremity kinematics for manual wheelchair propulsion: A preliminary investigation on coupling between arm segments for people with spinal cord disorder. American Society of Biomechanics, 2012.   
Jayaraman C, Culp S, Anc Z, Beck C, Rice I, Sosnoff J Correlation analysis of upper extremity motion during manual wheelchair propulsion: A preliminary investigation on coupling between arm segments. Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, 2012.   
Hsua IM, Jayaraman C, Culp S, Rice I, Hsiao-Wecksler E T & Sosnoff, J. Variability and complexity of shoulder motion during wheelchair propulsion. Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, 2012.   
  
Grant Funding   
1. Rice I, Jan Y & Bleakney A. Pressure Management in in Adapted Sports. Paralyzed Veterans of America (PVA) Education Foundation. (Grant # 817). 6/01/2017- 5/31/2018. $47,709.00 (Role PI 12%)   
  
2. Rice I, Rice L, Sosnoff J & Ratnam R. Home Based Telerehabilitation Training System for Veterans with Spinal Cord Injury. Chez Family Foundation Center for Wounded Veterans in Higher Education seed funding program, University of Illinois Urbana Champaign. (#4455). 1/19/2016-12/30/2016. $30,000. [Role PI (No support)]   
  
3. Rice I & Jan Y. Sustainable Sports Science Instructional Program for VA Athletes and Coaches   
Department of Veterans Affairs (VA), Adapted Sports Grant (581 VA 2016-ASG-66). 9/1/2015-3/01/2017. $40,000. [Role PI (No support)]   
4. Rice, L.A., Rice, I.M. Enhancement of Community Participation among Full Time Wheeled Mobility Device Users. University of Illinois Campus Research Board. May 1, 2015 – November 30, 2016. $29,025. (Role: Co- I)   
  
5. Rice I & Woods J. Instrumented Treadmill and Motion Capture System for Disability Studies Office of the Provost/Vice Chancellor for Research Equipment Funding Program. UIUC 2015, $140,000.   
  
6. Rice I, Hedrick, B, Sosnoff J& Rice, L. (2013-14) Impact of Wheelchair Propulsion and Transfer Training on Reducing Shoulder Pain and Increasing Community Participation in Pediatric Manual Wheelchair Users with Physical Disabilities. University of Illinois Center on Health Aging, and Disability (CHAD) Award. 9/1/2013-9/1/2014. $19,780. [Role PI (No support)]   
  
7. Rice I, Motl R & Rice, L Promoting Physical Activity through a Manual Wheelchair Propulsion Activity Intervention in Persons with Multiple Sclerosis. National Multiple Sclerosis Society (# IL 0005)10/5/2012-11/05/2013. $109,679. [Role: PI (35%)]   
  
8. Cooper, R., Crytzer T M, Rice I & Oyster, ML. Development of clinical practice guidelines for the racing smart wheel. Veterans Administration, VAPHS Pilot Grant. May, 2013- September, 2013. $15,000. (Role: Co-I)   
  
9. Rice I,& Sosnoff, J. Effects of Wheelchair Configuration on Manual Wheelchair Propulsion   
Training in Reducing Injurious Propulsion Biomechanics in Novice Individuals. University of Illinois Research Board, Award 12078, 3/1/2012-5/31/2013. $22,620. [Role PI (No support)]   
  
10. Crytzer T M, Rice I & Oyster, ML. Development of Clinical Practice Guidelines for the Racing Smart Wheel. Veterans Administration Pilot Grant, 2012. $25,000. [Role Co-PI (No support)]

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**Advancements in our understanding of manual wheelchair biomechanics: Functional Tasks**

Thursday, May 03, 2018 03:45 PM - 05:15 PM

***Beth Cloud, PT, DPT, PhD***  
Mayo Clinic

**CV:**  
CV   
Positions and Honors   
  
Positions   
  
2016 - Present: Faculty - Program in Physical Therapy, Mayo Clinic School of Health Sciences, Mayo Clinic College of Medicine and Science, Rochester, Minnesota   
  
2017 - Present: Assistant Professor of Physical Therapy - Mayo Clinic College of Medicine and Science   
  
2015 - 2016: Postdoctoral Research Fellow - Department of Physical Medicine & Rehabilitation, Mayo Clinic, Rochester, Minnesota   
  
2015 - 2016: Adjunct Faculty - College of Saint Scholastica, Duluth, Minnesota   
  
2013 - 2017: Instructor of Physical Therapy - Mayo Clinic College of Medicine and Science   
  
2010 - 2015: Physical Therapist - Department of Physical Medicine & Rehabilitation, Mayo Clinic, Rochester, Minnesota   
  
Honors   
  
2016: Outstanding Trainee Researcher Award - Academy of Spinal Cord Injury Professionals   
  
2016: FASEB MARC Travel Award - FASEB   
  
2013 - 2014: Promotion of Doctoral Studies II Scholarship - Foundation for Physical Therapy   
  
2010 - 2015: Predoctoral Trainee on CTSA Grant Number TL1 TR000137 - CCaTS, PhD program, Rochester, Minnesota   
  
2010: Erik J. Aasen Award - Program in Physical Therapy, Mayo School of Health Sciences, Mayo Clinic College of Medicine, Rochester, Minnesota   
  
  
Licensure   
  
2010 - Present: Physical Therapy (state: Minnesota)   
  
  
Presentations (past 5 years)   
  
2017: Development of a propulsion-specific regression model to predict scapulothoracic motion (poster) - Annual Meeting of the American Society of Biomechanics, Boulder, Colorado   
  
2016: Seat dump angle affects spine and scapular motion during propulsion (oral) - Academy of Spinal Cord Injury Professionals Educational Conference and Expo, Nashville, Tennessee   
  
2016: Efficient and effective EBP search strategies: 2 Minutes to answer your clinical questions (Continuing education course ) - Annual Conference of the Minnesota Chapter of the American Physical Therapy Association , St Paul, Minnesota   
  
2016: Changes to manual wheelchair seat dump angle are associated with changes in thoracolumbar lordosis and scapular kinematics during propulsion in individuals with spinal cord injury (poster) - Young Investigators Research Symposium, Rochester, Minnesota   
  
2015: Spinal posture and balance in individuals with spinal cord injury in response to wheelchair seat changes (oral) - The 25th Congress of the International Society of Biomechanics, Glasgow, Scotland, United Kingdom   
  
2015: Spinal curvature and shoulder kinematics during wheelchair propulsion: Evaluating the impact of spinal cord injury level (oral) - Mayo Orthopedic Research Alumni Association International Symposium in Recognition of Kai-Nan An, Ph.D., Rochester, Minnesota   
  
2015: Spinal curvature and shoulder kinematics during wheelchair propulsion: Evaluating the impact of spinal cord injury level (poster) - Annual Meeting of the American Society of Biomechanics, Columbus, Ohio   
  
2015: Effect of using a skeleton model to facilitate anatomical landmark identification for shoulder kinematics by first-year DPT students (poster) - American Physical Therapy Association Combined Sections Meeting, Indianapolis, Indiana   
  
2014: Accuracy of quantifying seated spinal curvature using fiber optic technology versus optoelectronic markers (poster) - World Congress of Biomechanics, Boston, Massachusetts   
  
2014: Quantifying seated spinal posture: Accuracy and values obtained with a fiber optic system (poster) - Translational Science 2014 Meeting, Washington, District of Columbia   
  
2013: Quantification of spinal posture in manual wheelchair users (poster) - National Predoctoral Clinical Research Training Program Meeting, Rochester, Minnesota   
  
2012: Seated postures in wheelchair users: An exploratory analysis of subacromial space and shoulder joint orientation measures (poster) - National Predoctoral Clinical Research Training Program Meeting, Rochester, Minnesota   
  
  
Publications (past 5 years)   
  
Cloud BA, Zhao KD, Ellingson AM, Nassr A, Windebank AJ, An KN. Increased Seat Dump Angle in a Manual Wheelchair Is Associated With Changes in Thoracolumbar Lordosis and Scapular Kinematics During Propulsion. Arch Phys Med Rehabil. 2017 Oct; 98 (10):2021-2027.e2 Epub 2017 Mar 18 PMID: 28322758 PMCID: 5603358 DOI: 10.1016/j.apmr.2017.02.014   
  
Luetmer MT, Cloud BA, Youdas JW, Pawlina W, Lachman N. Simulating the multi-disciplinary care team approach: Enhancing student understanding of anatomy through an ultrasound-anchored interprofessional session. Anat Sci Educ. 2017 Sep 15 Epub 2017 Sept 15 PMID: 28914990 DOI: 10.1002/ase.1731   
  
Van Straaten MG, Cloud BA, Zhao KD, Fortune E, Morrow MMB. Maintaining Shoulder Health After Spinal Cord Injury: A Guide to Understanding Treatments for Shoulder Pain. Arch Phys Med Rehabil. 2017 May; 98: (5)1061-1063. PMID: 28185640 DOI: 10.1016/j.apmr.2016.10.005   
  
Eby SF, Cloud BA, Brandenburg JE, Giambini H, Song P, Chen S, LeBrasseur NK, An KN. Shear wave elastography of passive skeletal muscle stiffness: influences of sex and age throughout adulthood. Clin Biomech (Bristol, Avon). 2015 Jan; 30: (1)22-7. PMID: 25483294 PMCID: 4298479 DOI: 10.1016/j.clinbiomech.2014.11.011   
  
Zhao KD, Van Straaten MG, Cloud BA, Morrow MM, An KN, Ludewig PM. Scapulothoracic and Glenohumeral Kinematics During Daily Tasks in Users of Manual Wheelchairs. Front Bioeng Biotechnol. 2015; 3:183. PMID: 26636073 PMCID: 4653754 DOI: 10.3389/fbioe.2015.00183   
  
Van Straaten MG, Cloud BA, Morrow MM, Ludewig PM, Zhao KD. Effectiveness of home exercise on pain, function, and strength of manual wheelchair users with spinal cord injury: a high-dose shoulder program with telerehabilitation. Arch Phys Med Rehabil. 2014 Oct; 95(10):1810-1817.e2. Epub 2014 Jun 2 PMID: 24887534 PMCID: 4182115 DOI: 10.1016/j.apmr.2014.05.004   
  
Cloud BA, Zhao KD, Breighner R, Giambini H, An KN. Agreement between fiber optic and optoelectronic systems for quantifying sagittal plane spinal curvature in sitting. Gait Posture. 2014 Jul; 40: (3)369-74. PMID: 24909579 PMCID: 4099294 DOI: 10.1016/j.gaitpost.2014.05.007   
  
Cloud BA, Ball BG, Chen BK, Knight AM, Hakim JS, Ortiz AM, Windebank AJ. Hemisection spinal cord injury in rat: the value of intraoperative somatosensory evoked potential monitoring. J Neurosci Methods. 2012 Nov 15; 211: (2)179-84. PMID: 22960163 PMCID: 3491113 DOI: 10.1016/j.jneumeth.2012.08.024   
  
  
Research Support   
  
2015 - present: Development of a biofeedback intervention to reduce risk of upper extremity over-use injury following paraplegia and tetraplegia (Co-Principal Investigator) - Funded by: Rehabilitation Medicine Research Center (Mayo Clinic), on behalf of the Craig H. Neilsen Fund for Spinal Cord Injury Care and Research Honoring Robert D. Brown Jr., M.D.

***Alicia Koontz, PhD, RET***  
University of Pittsburgh

**CV:**  
Publications   
1. Hogaboom NS, Huang BL, Worobey LA, Koontz AM, Boninger ML. Cross-sectional investigation of acute changes in ultrasonographic markers for biceps and supraspinatus tendon degeneration after repeated wheelchair transfers in people with spinal cord injury. American Journal of Physical Medicine & Rehabilitation. 2016; 95:818-830.   
  
2. Tsai C-Y\*, Boninger ML, Hastings J, Cooper RA, Rice LA, Koontz AM. The Immediate Biomechanical Implications of Transfer Component Skills Training on Independent Wheelchair Transfers. Archives of Physical Medicine and Rehabilitation. 2016 Oct; 97(10): 1785-92. PMID: 27084267.   
  
3. Hwang S, Lin YS, Hogaboom NS, Wang LH, Koontz AM. Relationship between linear velocity and tangential push force while turning to change the direction of the manual wheelchair. Biomed Tech (Berl). 2016 Aug 17. [Epub ahead of print] PMID: 27639264.   
  
4. Hwang S, Tsai CY, Koontz AM. Feasibility study of using a Microsoft Kinect for virtual coaching of wheelchair transfer techniques. Biomed Tech (Berl). 2016 Jun 22. [Epub ahead of print] PMID: 27331305.   
  
5. Koontz AM, Tsai C-Y, Hogaboom NS, Boninger ML. Transfer component skill deficit rates among veterans who use wheelchairs. Journal of Rehabilitation Research and Development, 2016; 53(2): 279-294.   
  
6. Hogaboom NS, Diehl JA, Oyster ML, Koontz AM, Boninger ML. Ultrasonigraphic median nerve changes after repeated wheelchair transfers in persons with paraplegia and their relationship with subject characteristics and transfer skills. Physical Medicine and Rehabilitation. 2016; 8(4):305-313.   
  
7. Worobey LA, Lin Y-S, Koontz AM, Boninger ML. Dynamic three-dimensional ultrasound to evaluate scapular movement among manual wheelchair users and healthy controls. Topics in Spinal Cord Injury Rehabilitation 2015; 21(4): 303-12.   
  
8. Crytzer TM, Jerome GM, Cooper RA, Koontz AM. Identifying research needs for wheelchair transfers in the built environment. Disability and Rehabilitation: Assistive Technology, Epub 2015 May 19:1-7.   
  
9. Yang Y-S, Koontz AM, Chen C-R, Fang W-C, Chang J-J. Effect of a wheelie training method with the front wheels on a ramp in novice able-bodied participants: a randomized control trial. Assistive Technology, 2015; 27(2): 121-7.   
  
10. Kankipati P\*, Boninger ML, Gagnon D, Cooper RA, and Koontz AM. Upper limb joint kinetics of three sitting pivot wheelchair transfer techniques in individuals with spinal cord injury. Journal of Spinal Cord Medicine, Epub 2014 Aug 17.   
  
11. Tsai C-Y\*, Boninger ML, Koontz AM. The relationship between independent transfer skills and upper limb kinetics in wheelchair users. Biomed Research International, Epub 2014 Aug 5.   
  
12. Lin Y-S\*, Boninger, ML, Worobey L, Farrokhi S, Koontz A. Effects of repetitive shoulder activity on the subacromial space in manual wheelchair users. Biomed Research International, Epub. 2014 July 20.   
  
13. Lin Y-S\*, Boninger ML, Day KA\*\*, Koontz AM. Ultrasonographic measurement of the acromiohumeral distance in spinal cord injury: Reliability and effects of shoulder positioning. Journal of Spinal Cord Medicine, Epub 2014 June 26.   
  
14. Worobey LA, Udofa IA, Lin YS, Koontz AM, Farrokhi SS, and Boninger ML. Reliability of freehand three-dimensional ultrasound to measure scapular rotations. Journal of Rehabilitation Research and Development, 2014; 51(6): 985-94.   
  
15. Tsai C-Y\*, Rice LA, Hoelmer C\*\*, Boninger ML, Koontz AM. Basic Psychometric Properties of the Transfer Assessment Instrument (Version 3.0), Archives of Physical Medicine and Rehabilitation, 2013 Dec; 94(12):2456-64. Epub 2013 May 16.   
  
16. Toro ML\*, Koontz AM, Cooper RA. The Impact of Transfer Setup on the Performance of Independent Transfers, Human Factors: The Journal of the Human Factors and Ergonomics Society, 2013 June; 55(3): 567-580.   
  
17. Yang Y, Koontz AM, Yeh S-J, Chang J-J. The Effect of Backrest Height on Wheelchair Propulsion Biomechanics for Level and Uphill Conditions, Archives of Physical Medicine and Rehabilitation, 2012 Apr; 93(4):654-9. Epub 2012 Feb 10.   
  
Conference Proceedings   
1. Peterson SL, Wang H, Koontz AM. Neuromuscular electrical stimulation use in transtibial amputations: A pilot study. 44th Academy Annual Meeting & Scientific Symposium, February 14-17, 2018, New Orleans, LA.   
  
2. Sivaprakasam A, Bass S, Kamaraj D, Koontz A. Investigating wheelchair seating parameters and their effect on ramp propulsion. 2017 Biomedical Engineering Society (BMES) Annual Meeting, October 11-14, 2017, Phoenix, AZ.   
  
3. Bossuyt FM, Hogaboom NS, Worobey LA, Koontz AM, Arnet U, and Boninger ML. Overground wheelchair propulsion induced fatigue changes propulsion biomechanics: Upper limb saving or straining? 26th Congress of the International Society of Biomechanics, July 23-27, 2017, Brisbane, Queensland, Austrailia.   
  
4. Kulich H\*, Bass S\*, Koontz AM. User evaluation of an alternative manual drive system for wheelchair mobility. Proceedings of the RESNA 2017 Annual Conference., New Orleans, LA, June 28-30, 2017.   
  
5. Sivaprakasam A\*\*, Cooper RA and Koontz AM. Evaluation of the Agilelife Patient Transfer and Movement System. Proceedings of the RESNA 2017 Annual Conference., New Orleans, LA, June 28-30, 2017.   
  
6. Sivaprakasam A\*\* and Koontz AM. The usability of an automated patient transfer technology. National Annual Patient Safety Congress, May 17-19, 2017, Orlando, FL.   
  
7. Bossuyt FM, Hogaboom NS, Worobey LA, Koontz AM, Arnet U, and Boninger ML. How wheelchair users with spinal cord injury adjust their propulsion kinetics throughout an over ground fatigue protocol. Jahrestagung der Deutschen Gesellschaft für Biomechanik (DFfB), March 29-31, 2017.   
  
8. Giscavage J\*\*, Bass S\*, Koontz AM. An ergonomic comparison of three different patient transport wheelchairs. Proceedings of the 32nd International Seating Symposium, March 2-4, 2017, Nashville, TN.   
  
9. Wei L\*, Ka H, Koontz AM. Evaluating wheelchair transfer technique by Microsoft Kinect. Proceedings of the 32nd International Seating Symposium, March 2-4, 2017, Nashville, TN.   
  
10. Koontz AM and Tsai C-Y. Immediate effects of transfer component skills training on upper limb biomechanics. Paralyzed Veterans of America’s Annual Conference, Summit 2016, August 30-Sept 1, 2016, Orlando, FL.   
  
11. Wei L\*, Hyun WK, Tsai C-Y and Koontz AM. Can the Kinect detect differences between proper and improper wheelchair transfer techniques? Proceedings of the RESNA/NCART 2016 Annual Conference, July 10-14, 2016, Arlington, VA.   
  
12. Worobey L, Hogaboom N, Rice LA, and Koontz AM. Why technique is important, how to teach it, and does training change it? American Congress of Rehabilitation Medicine 93rd Annual Conference, October 30-November 4, 2016, Chicago, IL.   
  
13. Bass S and Koontz AM. Techniques used to optimize wheelchair propulsion startup. Proceedings of the ASB 2015 Annual Conference, Columbus, OH, August 4-8, 2015.   
  
14. Hogaboom NS, Lin Y-S, Worobey LA, Koontz AM, Boninger ML. Wrist compressive forces affect the median nerve response to wheelchair propulsion and other markers for carpal tunnel syndrome in people with paraplegia. Proceedings of the ASB 2015 Annual Conference, Columbus, OH, August 4-8, 2015.   
  
15. Kulich H\*\*, Bass S, Koontz AM. Accessibility barriers affecting independent wheelchair transfers in the community. Proceedings of the RESNA 2015 Annual Conference, June 11-14, 2015, Denver, CO.   
  
16. Wei L, Tsai C-Y, Bass S, Koontz AM. Differences in the upper limb mechanical demands between wheelchair to bench and bench to wheelchair sitting-pivot transfers. Proceedings of the RESNA 2015 Annual Conference, June 11-14, 2015, Denver, CO.   
  
17. Kulich H\*\*, Bass S, Koontz AM. The effects of grab bar presence on independent wheelchair transfer height and technique. Proceedings of the RESNA 2015 Annual Conference, June 11-14, 2015, Denver, CO.   
  
18. Koontz AM, Tsai C-Y, Sherman ZA\*\*, Boninger ML. Transfers skill deficits among veterans who use wheeled mobility devices, Proceedings of the 31th International Seating Symposium, February 26-28, 2015, Nashville, TN.   
  
19. Hogaboom NS, Oyster ML, Koontz AM, Boninger ML. Transfers affect changes in ultrasonographic markers for bicepts tendon degeneration, Proceedings of the 31th International Seating Symposium, February 26-28, 2015, Nashville, TN.   
  
20. Tsai C-Y, Koontz AM. Preparation skills impact upper limb joint loading during toilet transfers, Proceedings of the 31th International Seating Symposium, February 26-28, 2015, Nashville, TN.   
  
21. Bass SR, Tsai C-Y, Koontz AM. Gender differences in wheelchair transfer skills and performance, Proceedings of the 31th International Seating Symposium, February 26-28, 2015, Nashville, TN.   
  
22. Koontz AM, Kankipati P, Tsai C-Y and Boninger ML. The effects of tetraplegia on wheelchair transfer joint kinetics. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
23. Wang L, Lin Y, Hwang S, Koontz A. Turning kinetics during intense wheelchair propulsion. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
24. Hogaboom NS, Lin Y, Koontz AM, Boninger ML. Differences in handrim biomechanics between people with tetraplegia and paraplegia during overground propulsion. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
25. Lin Y, Boninger ML, Hogaboom NS, Koontz AM. Relationship between supraspinatus tendon characteristics and subacromial space in persons with spinal cord injury. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
26. Lin Y, Donahoe SR\*\*, Hogaboom NS, Boninger ML, Koontz AM. Effects of wheelchair setting on shoulder tendon characteristics after intense wheelchair propulsion. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
27. Tsai C-Y and Koontz AM. The relationship between transfer skills and upper limb joint loading in wheelchair users. 7th World Congress on Biomechanics, July 6-11, 2014, Boston, MA.   
  
28. Pynn K\*\*, Tsai C-Y, Koontz AM. The relationship between lead hand positioning and proper wheelchair transfer techniques. Proceedings of the RESNA 2014 Annual Conference, June 11-15, 2014, Indianapolis, IN.   
  
29. Hogaboom NS, Oyster ML, Koontz AM, Boninger ML. Ultrasonic changes of the median nerve indicative of carpal tunnel syndrome are related to hand placement during transfers. Proceedings of the RESNA 2014 Annual Conference, June 11-15, 2014, Indianapolis, IN.   
  
30. McCutcheon J\*\*, Hwang S, Tsai C-Y, Koontz AM. The feasibility of using Kinect for Transfer Assessment. Proceedings of the RESNA 2014 Annual Conference, June 11-15, 2014, Indianapolis, IN.   
  
31. Huang B, Hogaboom NS, Koontz A, Boninger M. Effects of wheelchair transfers on ultrasonographic markers of shoulder pathology in people with spinal cord injuries. Association of Academic Physiatrists 2014 Annual Meeting, Februrary 25-March 1, 2014, Nashville, TN.   
  
32. Hwang S, Lin Y-S, Wang L-H, Koontz AM. Speed and force relations during prolonged high-intensity figure-of-eight wheelchair propulsion. American Society of Biomechanics Annual Meeting, September 4-7, 2013 Omaha, NB.   
  
33. Jerome GM, Cooper RA, Crytzer TM, Koontz AM. Identifying research needs for wheelchair transfers in the built environment. Proceedings of the RESNA 2013 Annual Conference, June 22-24, 2013, Seattle, WA.   
  
34. Lin Y-S, Boninger M, Hogaboom N, Koontz A. Ultrasonographic-measured acromiohumeral distance associated with wheelchair pushrim kinetics in individuals with spinal cord injury. Proceedings of the RESNA 2013 Annual Conference, June 22-24, 2013, Seattle, WA.   
  
35. Day K\*\*, Lin Y-S, Koontz AM. Effects of positioning on the acromiohumeral distance following upper extremity fatiguing exercises. Proceedings of the RESNA 2013 Annual Conference, June 22-24, 2013, Seattle, WA.   
  
  
36. Meess K\*\*, Tsai C-Y, Koontz AM. Trunk movement in different seated pivot wheelchair transfer techniques. Proceedings of the RESNA 2013 Annual Conference, June 22-24, 2013, Seattle, WA.   
  
37. Tsai C-Y and Koontz AM. The effects of wheelchair orientation on upper limb biomechanics for a commode transfer. Proceedings of the RESNA 2013 Annual Conference, June 22-24, 2013, Seattle, WA.   
  
38. Lin Y-S, Koontz AM. Investigating activity-related sonographic change in the wheelchair user’s shoulder. Proceedings of the 29th International Seating Symposium, Nashville, TN, March 7-9, 2013.   
  
39. Tsai C, Koontz AM. Refinement and psychometric reassessment of the transfer assessment instrument. Proceedings of the 29th International Seating Symposium, Nashville, TN, March 7-9, 2013.   
  
40. Jerome GM, Toro Hernandez ML, Koontz AM, Cooper RA. The impact of transfer setup on hand positioning during independent transfers. Proceedings of the RESNA 2012 Annual Conference, June 30-July 2, 2012, Baltimore, MD.   
  
41. Hoelmer C\*\*, Tsai C, Koontz AM. Transfer assessment instrument reliability in person and via video. Proceedings of the RESNA 2012 Annual Conference, June 30-July 2, 2012, Baltimore, MD.   
  
42. Tsai C, Kankipati P, Hoelmer C\*\*, Koontz AM. The feet free moment and ground reaction force in wheelchair transfer: a pilot study. Proceedings of the RESNA 2012 Annual Conference, June 30-July 2, 2012, Baltimore, MD.   
  
43. Lin Y-S., Koontz AM, Worobey L. Boninger ML. Effect of muscle fatiguing tasks on subacromial space in manual wheelchair users. Proceedings of the RESNA 2012 Annual Conference, June 30-July 2, 2012, Baltimore, MD.   
  
44. Hamilton C, Tsai C-Y, McClure LA, Koontz AM. The impact of subject characteristics on transfer quality, Association of Academic Physiatrists 2012 Annual Meeting, February 28-March 3, 2012, Las Vegas, NV.   
  
45. Lindemann D, Worobey L, Oyster M, Koontz AM, Boninger ML. Physical factors affecting ability to perform pressure relief in wheelchair users. Association of Academic Physiatrists 2012 Annual Meeting, February 28-March 3, 2012, Las Vegas, NV.   
  
Grant   
PI   
REACT Center Pilot Studies Program at the University of Alabama   
NIH   
Application, feasibility and acceptability of six-weeks of high intensity interval training in wheelchair users with spinal cord injury   
7/1/2017 – 7/31/2018, $40,000   
  
PI, Sub-Contract Award   
RE2   
SBIR Phase 2   
Department of Defense   
Biomechanical Exoskeleton Simulator System   
Recommended for Funding   
$40,193   
Primary Mentor (Bass)   
  
Clinical and Translational Science (CTS) Fellowship TL1 program   
CTS Predoctoral Fellowship Award   
11/1/2016 – 10/31/2018   
Full Tuition + stipend   
  
PI on Sub-Award   
SC150251   
DOD CRMRP-SCIRP   
Clinical Trials   
Restoration of Reaching and Grasping Function in Individuals   
with Spinal Cord Injury Using MyndMove Neuromodulation   
Therapy   
Recommended for Funding-Deferred   
$251,246   
  
Co-PI   
EEC 1560174   
NSF   
Research Experience for Undergraduates (REU)   
American Student Placements and Internships in Rehabilitation Engineering (ASPIRE) – Competed Renewal Award   
4/1/2016 – 3/31/2019   
$351,506   
  
PI   
3064   
Paralyzed Veterans of America Research Foundation   
Clinical Trial Award   
Effect of Vibration Exercise on Upper Limb Strength, Function, and Pain   
4/1/2016-3/31/2018   
$138,686   
  
PI, Sub-Contract Award   
Next Health   
R44HD085702   
SBIR Direct to Phase 2   
National Institutes of Health   
Development and Evaluation of an Automated Transfer Technology   
9/18/2015 - 8/31/2017   
$301,901

***Philip Requejo, PhD***  
Rancho Los Amigos National Rehabilitation Center

**CV:**  
Publications   
Shashank Raina, Jill McNitt-Gray, Sara Mulroy, Philip Requejo. Effect of choice of   
recovery patterns on handrim kinetics in manual wheelchair users with paraplegia and tetraplegia. J. Spinal Cord Medicine. 2012. 35(3): 148-155   
  
Munaretto JM, McNitt-Gray JL, Flashner H, Requejo PS. Reconfiguration of the upper extremity relative to the pushrim affects load distribution during wheelchair propulsion.Med Eng Phys. 2013; Jan 22. pii: S1350-4533   
  
Winstein C, Requejo P. Innovative technologies for rehabilitation and health   
promotion: what is the evidence? Phys Ther. 2015 Mar;95(3):294-8. doi:   
10.2522/ptj.2015.95.2.294. PubMed PMID: 25734191.   
  
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Requejo PS, Mulroy SJ, Ruparel P, Hatchett PE, Haubert LL, Eberly VJ, Gronley JK.   
Relationship Between Hand Contact Angle and Shoulder Loading During Manual   
Wheelchair Propulsion by Individuals with Paraplegia. Top Spinal Cord Inj Rehabil.   
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changes over 3 years and effect of obesity on community mobility for persons with   
chronic spinal cord injury. J Spinal Cord Med. 2016 Jan 18.   
  
Slowik JS, McNitt-Gray JL, Requejo PS, Mulroy SJ, Neptune RR. Compensatory   
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Telehealth Monitor to Measure Physical Activity and Pressure Relief Maneuver   
Performance in Wheelchair Users. Assist Technol. 2016 Sep 29. [Epub ahead of   
print] PubMed PMID: 27687753.   
  
Requejo PS, McNitt-Gray JL. Editorial: Wheeled Mobility Biomechanics. Front   
Bioeng Biotechnol. 2016 Jun 28;4:53. doi: 10.3389/fbioe.2016.00053. PubMed PMID:27446910; PubMed Central PMCID: PMC4924446.   
  
Mulroy SJ, Hatchett PE, Eberly VJ, Haubert LL, Conners S, Gronley J, Garshick   
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Association With Depression and Satisfaction With Life in Persons With Spinal   
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PMC5039089.   
  
Slowik JS, Requejo PS, Mulroy SJ, Neptune RR. The influence of wheelchair   
propulsion hand pattern on upper extremity muscle power and stress. J Biomech.   
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Ongoing Research Support   
Southern California Spinal Cord Injury Model System at Rancho Los Amigos National Rehabilitation Center.   
SI16000114 Szlachcic (PI) 11/01/16 – 10/31/21 U.S. Dept. of Health and Human Services/NIDILRR   
The overarching goal of the Southern California Spinal Cord Injury Model System (SCIMS) at Rancho Los Amigos National Rehabilitation Center (RLANRC) is to generate new knowledge that directly fosters recovery of function, community re-integration, and wellness throughout the lifetime of individuals with SCI. Our objectives are carried out through four integrated categories of effort during the 5 years: 1) Comprehensive Service Delivery; 2) Participation in the National Spinal Cord Injury Database; 3) Site-Specific Research; and   
4) Collaborative Research Module (s). SCIMS partners include Emergency Medical Services, LAC+ USC, and Harbor+UCLA; treating a majority of the region’s trauma victims. Our outcomes include: 1) Increased   
public knowledge about the incidence, causes, and outcomes of traumatic SCI; 2) Evidence-based interventions and technologies that enable and motivate healthy behaviors in individuals living with SCI; 3) Increase in practical, relevant, effective, and scientifically-informed knowledge and strategies for enhancing health, function, and well-being after SCI.   
Role: Co-Director   
  
Evaluating the integration of low-cost emerging technology and personalized model simulation results in the wheelchair prescription process   
DOD CDMRP-SCRIP 130030 2014-2017   
Specific Aim 1: determine if mechanical demand imposed on the shoulder during manual WC propulsion can be reduced by incorporating personalized fitting tools into the clinical WC seating prescription process as   
compared to the current WC fitting process.   
Specific Aim 2: determine if incorporating personalized fitting tools into the clinical WC seating prescription process improves indices specific to shoulder pain, WC use in the community, and health-related quality of life   
Role: Site-PI, McNitt-Gray (PI)   
  
Psychosocial contributors to pain management and physical activity after SCI   
Funding Agency: Craig H. Neilsen Foundation (323847) 04/01/15 - 3/31/17   
PI: Mulroy, SJ   
The purpose of this project is to identify factors that facilitate physical activity and positive pain management strategies for persons with SCI to inform wellness and pain management programs for diverse populations.   
Role: Co-I

***Brooke Slavens, PhD***  
University of Wisconsin Milwaukee

**CV:**  
Selected Publications   
  
Fritz, J. M., Inawat, R. R., Slavens, B. A., McGuire, J. R., Ziegler, D. W., Tarima, S. S., Grindel, S. I., & Harris, G. F. (2017, May). Assessment of Kinematics and Electromyography Following Arthroscopic Single-Tendon Rotator Cuff Repair. PM&R, 9(5), 464-476.   
  
Fiedler, G., Slavens, B. A., O’Connor, K. M., Smith, R. O., & Hafner, B. J. (2016). Effects of physical exertion on trans-tibial prosthesis users’ ability to accommodate alignment perturbations. Prosthetics & Orthotics International, 40(1), 75-82.   
  
Slavens, B. A., Schnorenberg, A. J., Aurit, C. M., Tarima, S., Vogel, L. C., & Harris, G. F. (2016). Biomechanics of Pediatric Manual Wheelchair Mobility. Lausanne: Frontiers Media: Wheeled Mobility Biomechanics.   
  
Slavens, B. A., Schnorenberg, A. J., Aurit, C. M., Graf, A., Krzak, J., Reiners, K., Vogel, L. C., & Harris, G. F. (2015). Evaluation of pediatric manual wheelchair mobility using advanced biomechanical methods. BioMed Research International: Special Issue on Wheeled Mobility, 2015, 11 pages.   
  
Slavens, B. A., Schnorenberg, A. J., Aurit, C. M., Tarima, S., Vogel, L. C., & Harris, G. F. (2015). Biomechanics of Pediatric Manual Wheelchair Mobility. Frontiers in Bioengineering and Biotechnology, 3(137).   
  
Schnorenberg, A. J., Slavens, B. A., Wang, M., Vogel, L., Smith, P., & Harris, G. F. (2014). Biomechanical model for evaluation of pediatric upper extremity joint dynamics during wheelchair mobility. Journal of Biomechanics, 47(1), 269-276.   
  
Fiedler, G., Slavens, B. A., O’Connor, K. M., Smith, R. O., & Hafner, B. J. (2014). Effects of physical exertion on trans-tibial prosthesis users’ ability to accommodate alignment perturbations. Prosthetics & Orthotics International, 1-8.   
  
Fiedler, G., Slavens, B. A., Smith, R. O., Briggs, D., & Hafner, B. J. (2014). Criterion and construct validity of prosthesis-integrated measurement of joint moment data in persons with trans-tibial amputation. Journal of Applied Biomechanics, 30(3), 431-438.   
  
Paul, A. J., Slavens, B. A., Graf, A., Krzak, J., Vogel, L., & Harris, G. F. (2013). Upper Extremity Biomechanical Model for Evaluation of Pediatrics with SCI during Wheelchair Activities. Topics in Spinal Cord Injury Rehabilitation, 19(2), 152-190.   
  
Fiedler, G., Slavens, B. A., Hafner, B., Briggs, D., & Smith, R. O. (2013). Leg laterality in persons with bilateral transtibial amputation: A pilot study using prosthesis-integrated sensors. Journal of Prosthetics and Orthotics, 25(4), 168-176.   
  
Slavens, B. A., Graf, A., Krzak, J., Vogel, L., & Harris, G. F. (2013). Wheelchair Kinematics for Children with Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, 19(2), 152-190.   
  
Slavens, B. A., & Harris, G. F. (2012, February). Biomedical engineering education and advanced bioengineering learning: Interdisciplinary concepts, Chapter 7: Biomechanics. Abu-Faraj, Z. O. (Ed.). 1, 284-338. Hershey, PA: IGI Global.

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**Motherhood after spinal cord injury: lactation, breastfeeding and autonomic dysreflexia: knowledge to practice**

Thursday, May 03, 2018 03:45 PM - 05:15 PM

***Amanda Lee, BSc***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
PERSONAL STATEMENT   
Amanda Lee is a MSc student in Experimental Medicine at the University of British Columbia, supervised by Dr. Krassioukov at the International Collaboration on Repair Discoveries (ICORD). She obtained a CIHR CGS-M scholarship to work on the present study, which serves as her thesis project. Amanda currently works with an interdisciplinary panel of health care practitioners, including sexual medicine clinicians, lactation consultants, nurses and occupational therapists to form evidence-based recommendations and clinician guidelines for postpartum care of mothers with SCI, specifically in the areas of facilitating successful breastfeeding.   
  
Amanda’s research experience in the field of SCI includes both pre-clinical and clinical research. She has been involved in studies using rodent models to evaluate the impact of SCI on cardiovascular function and cognition: previously humans with SCI exhibit mild cognitive impairment as well as elevated risk of cardiovascular disease associated with impaired cardiac function and vascular reactivity. Amanda’s involvement in this area includes assessing whether novel interventions such as passive exercise mitigate the cardiovascular aberrations and cognitive deficits that follow chronic SCI, as well as the effects of SCI on vascular structure and cytoarchitecture (particularly the hippocampus).   
  
With respect to clinical research, Amanda conducts several projects in addition to her work on breastfeeding after SCI. Currently Amanda is interested in the phenomenon of neurovascular coupling (NVC) as a marker for cerebrovascular health in persons with SCI, and is currently studying the implications of different durations of SCI and autonomic dysreflexia on global cerebral blood flow and cognition. This upcoming study, funded by the Heart & Stroke Foundation, will utilize ambulated blood pressure monitoring, hemodynamic assessments, neuroimaging (fMRI) and cognitive tasks. Additionally, Amanda is currently involved in clinical trials using intradetrusor onabotulinumtoxinA (Botox) administration to treat neurogenic detrusor overactivity and its subsequent impact on a) autonomic dysreflexia incidence/severity and b) cerebral autoregulation.   
  
AWARDS:   
2017 - Trainee Travel Award, International Collaboration on Repair Discoveries (ICORD)   
2017 - Go Global Self-Directed Research Award, University of British Columbia   
2017 - Canada Graduate Scholarships - Master’s Program (Experimental Medicine), Canadian Institutes of Health Research (CIHR)   
2017 – 3rd Best Poster award at the 4th Annual International Autonomic Symposium, International Collaboration on Repair Discoveries (ICORD)   
2016 - Canada Graduate Scholarships - Master’s Program (Clinical Neuropsychology), Canadian Institutes of Health Research (CIHR) – declined offer   
2015 – Highly Commended Entrant, Undergraduate Awards, Ireland   
2014 - Runner-up award for Top Poster Presentation, 4th Annual Multidisciplinary Undergraduate Research Conference, University of British Columbia   
  
CONTRIBUTION TO SCIENCE   
Publications:   
Lee, A.H.X., Phillips, A. A., Squair, J. W., Barak, O.F., Coombs, G., Ainslie, P.N., Sarafis, Z.K., Mijacika, T., Vucina, D., Dujic, Z., & Krassioukov, A.V. Alarming blood pressure changes during routine bladder emptying in a woman with cervical spinal cord injury. Spinal Cord: Series and Cases. (Accepted 9 Sep 2017).   
Holmgren, T., Lee, A.H.X., Hultling, C., Hocaloski, S., Elliott, S.L., & Krassioukov, A.V. The impact of spinal cord injury on breastfeeding ability and behavior. Journal of Neurotrauma. (Submitted 23 Aug 2017).   
Zheng, M. M. Z., Phillips, A. A., Golbidi, S., Lee, A. H. X., Laher, I., & Krassioukov, A.V. Impaired endothelium and remodelling in vasculature caudal to spinal cord transection can be reversed through TRPV4 and TGFβ pathways by increasing blood flow and shear forces. The Journal of Physiology. Submitted 5 June 2017. Special Case Resubmission requested by journal 4 July 2017.   
Lee, A.H.X., Phillips, A.A., & Krassioukov, A.V. (2016) Increased Central Arterial Stiffness after Spinal Cord Injury: Contributing Factors, Implications and Possible Interventions. Journal of Neurotrauma, 34 (6):1129-1140.   
Lee, A. H. X. (2016). CB1 receptor agonist HU-210 and antagonist AM-251 exert unique effects on male rat sexual behaviour when chronically exposed in adolescence. UBC Undergraduate Journal of Psychology, 4 (1), 3-12.   
Lee, A., & Rigby, R. (2014). The effect of acute low doses of the CB1 receptor agonist HU-210 on sexual behaviour in male rats. UBC Undergraduate Journal of Psychology, 3 (1), 3 - 13.   
Lee. A. H. X., Coombs, G., Phillips, A.A., Ainslie, P.N. Neurovascular coupling and global cerebral blood flow during passive heating intervention in patients with cervical spinal cord injury. (In preparation).   
Lee, A.H.X., Khayambashi, S., Co, D., Frank, A., Sepehry, A.A., Krausz, M., & Schütz, C.G. Epilepsy and seizures in the mentally ill homeless: psychiatric comorbidities and substance use. (In preparation).   
Chan, H., Stewart, L.C., Fayowski, C., Lee, A.H.X., & Brubacher, J. Injured elderly drivers and emergency department visits. (In preparation).   
  
Presentations:   
Elliott, S., Lee, A.H. X., Belich, B.N. “Pea app: a novel app for premature ejaculation.” Moderated poster session presented at the 2017 Annual Fall Scientific Meeting of the Sexual Medicine Society of North America. 27 October 2017.   
Lee. A. H. X., Phillips, A.A., Squair, J.W., Sayenko, D.G., Edgerton, V.R, Gerasimenko, Y., & Krassioukov, A.V. “Non-invasive electrical spinal cord stimulation restores autonomic cardiovascular function in individuals with spinal cord injury.” Poster presented at the ICORD Trainee Symposium. 14 June 2017.   
Lee, A. H. X., Zheng, M.M.Z., Wen, B., & Krassioukov, A.V. “Cardiovascular responses to ballroom dancing in wheelchair dancers.” Poster presented at GF Strong Research Day. 3 May 2017.   
Lee, A. H. X., Zheng, M.M.Z., Phillips, A.A., & Krassioukov, A.V. “Chronic autonomic dysreflexia after T3 spinal cord injury results in impaired vascular function in femoral rat arteries.” Poster presented at Experimental Biology. 26 April 2017.   
Lee. A. H. X., Phillips, A.A., Squair, J.W., Sayenko, D.G., Edgerton, V.R, Gerasimenko, Y., & Krassioukov, A.V. “Non-invasive electrical spinal cord stimulation restores autonomic cardiovascular function in individuals with spinal cord injury.” Poster presented at the SCI Symposium. 6 April 2017.   
Lee, A. H. X., Zheng, M.M.Z., Phillips, A.A., & Krassioukov, A.V. “Chronic autonomic dysreflexia after T3 spinal cord injury results in impaired vascular function in femoral rat arteries.” Award for 3rd best poster presentation at the 4th International Autonomic Symposium. 22 February 2017.   
Lee, A. H. X., Nikoo, M., Krausz, M., & Schutz, C. G. “Suicidality during opioid substitution treatment.” Poster presented at UBC Psychiatry Research Day. 26 May 2016.   
Lee, A. H. X., Dang, S.S., & Gorzalka, B.B. “Enhancement of endocannabinoid 2-arachidonoyl glycerol, but not arachidonoyl ethanolamide, suppresses sexual behavior in male rats.” Poster presented at the 41st Annual Meeting of the International Academy of Sex Research. 10 August 2015.   
Lee, A. H. X., Chao, T.W., & Schütz, C.G. “Stress response to cognitive assessments in patients with concurrent mental health and substance use disorders.” Poster presented at UBC Psychiatry Research Day. 18 June 2015.   
Rigby, R. & Lee, A. “The effects of chronic adolescent cannabinoid exposure on the sexual behaviour of male rats.” Poster presented at the 5th Annual Multidisciplinary Undergraduate Research Conference at UBC. 21 March 2015.   
Lee, A., & Rigby, R. “The inhibitory effect of CB1 receptor agonist HU-210 on sexual behaviour in male rats.” Runner-up award for Top Poster Presentation at the 4th Annual Multidisciplinary Undergraduate Research Conference at UBC. 22 March 2014.

***Stacy Elliott, BA, MD***  
University of British Columbia, Bc Centre for Sexual Medicine, Vancouver Sperm Retrieval Clinic, Prostate Cancer Supportive Care Clinic

**CV:**  
POSITIONS   
  
1997 - present   
Sexual Medicine Consultant/Director(2004) : BC Center for Sexual Medicine and to   
GF Strong Rehabilitation Center, Vancouver Coastal Health Authority   
  
1990 - present   
Co-Director, Vancouver Sperm Retrieval Clinic, Vancouver Coastal Health Authority   
  
2000 - present   
Faculty and Principle Investigator, International Collaboration on Repair Discoveries   
(ICORD), University of British Columbia   
  
2002 - present   
Clinical Professor, Department of Psychiatry, Division of Sexual Medicine, and   
Department of Urologic Sciences, Division of Urology, Faculty of Medicine, University   
of British Columbia   
  
2009 - 2016   
Medical Director, Sexual Assessment and Rehabilitation Clinic, Men’s Health Initiative,   
Prostate Center, Vancouver Hospital   
  
ONGOING RESEARCH SUPPORT:   
  
1. Craig H. Neilsen Foundation QOL Project Grants. Motherhood after spinal cord   
injury: lactation, breastfeeding, and autonomic dysre入〠exia. Period: 2016-2017   
PI: Dr. A. Krassioukov   
ROLE: Co-Investigator   
  
2. Rick Hansen Institute. Title: Development of a mobile app (telephone/iPod   
application) for emergency department physicians on recognition and management   
of life threatening episodes of autonomic dysre入〠exia: “ABC of AD for the EM doc”.   
Period: Apr 2015-Dec 2016.   
PI: Dr. A. Krassioukov.   
ROLE: Co-PI   
  
3. Rick Hansen Foundation/International Collaboration On Repair Discoveries   
(ICORD)/Seed Grants. Title: Development of evidence-based guidelines for blood   
pressure management during iatrogenically-induced autonomic dysre入〠exia in those   
with spinal cord injury: the limits of cerebral autoregulation. Period: Apr 2014-Jun   
2016.   
ROLE: PI   
  
COMPLETED RESEARCH SUPPORT:   
1. Rick Hansen Institute. Title: Perinatal Care of Women with Spinal Cord Injury –   
Workshop to develop Consensus for Research, Clinical and Policy Implications.   
Period 2014-2015.   
PI: M. Basso   
ROLE: Co-Investigator   
  
2. GF Strong Foundation. Title: Validation of the International Autonomic Standards   
of Evaluation of Individuals with Chronic Spinal Cord injury: Focus on Sexual, Bladder   
and Bowel Function. Period 2013-2015.   
PI: Dr. M. Carlson   
ROLE: Co-Investigator   
  
  
Davidson RA, Carlson M, Fallah N, Noonan VK, Elliott SL, Joseph J, Smith KM, Krassioukov AV. Inter-Rater Reliability of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury. J Neurotrauma. 2017 Feb;34(3):552-558. doi: 10.1089/neu.2016.4489. Epub 2016 Jul 8   
  
Davidson R, Elliott S, Krassioukov A. Cardiovascular Responses to Sexual Activity in Able-Bodied Individuals and Those Living with Spinal Cord Injury. J Neurotrauma. 2016 Dec 15;33(24):2161-2174. Epub 2016 May 31.   
  
Zheng MM, Phillips AA, Elliott SL, Krassioukov AV. Prazosin: a potential new management tool for iatrogenic autonomic dysreflexia in individuals with spinal cord injury? Neural Regen Res. 2015 Apr;10(4):557-8.   
  
Phillips AA, Elliott SL, Zheng MM, Krassioukov AV. Selective alpha adrenergic antagonist reduces severity of transient hypertension during sexual stimulation after spinal cord injury. J Neurotrauma. 2015 Mar 15;32(6):392-6. doi: 10.1089/neu.2014.3590. Epub 2014 Dec 5.

***Shea Hocaloski, RN, BTechN***  
Gf Strong Rehabilitation Centre

**CV:**  
PERSONAL STATEMENT:   
As a rehabilitation nurse, I aim to assist persons with disabilities to maximize their potential through education, counseling, research and the training of future health professionals. In addition to my experience working with patients who are prospective or current mothers with SCI, I have collaborated with colleagues to develop an informational pamphlet on SCI and Fertility/Pregnancy.   
  
POSITIONS AND HONORS:   
Professional Associations:   
2011- Present - Canadian Association for Rehabilitation Nurses   
2010-2012 - Canadian Fertility and Andrology Society   
2009 - Recipient of the William Fraser Research Grant for Research Proposal: A psychoeducational intervention targeting sexual function and body image in women with disability   
2007 –2010 - Urological Nurses of Canada   
2002 – Present - College of Registered Nurses of BC   
2004-2005 - American Association of Spinal Cord Injury Nurses   
2003-2004 - Nursing Practice Council: GF Strong Rehab Center   
  
Positions:   
2014 - Present - Sexual Health Clinician (Full time), GF Strong Rehabilitation Center, Vancouver Coastal Health. Vancouver, BC   
2006-2008 - Clinic Supervisor (Part time), Options for Sexual Health, Vancouver Clinic, Vancouver, BC   
2003-2004 - Clinical Nurse (Full Time), Spinal Cord Injury Program, GF Strong Rehabilitation Center, Vancouver Coastal Health. Vancouver, BC   
2003-2006 - Relief Supervisor (Casual), Options for Sexual Health, Various Lower Mainland Clinics (South Delta, New Westminster, North Vancouver)   
2002-2003 - Clinical Nurse (Casual), Extended Care, Delta Hospital, Delta, BC   
2002-2003 - Clinical Nurse (Casual), Sunny Hill Rehabilitation Center, Vancouver, BC   
  
  
Awards:   
2016 - Staff Travel/Training Award, International Collaboration on Repair Discoveries (ICORD)   
2016 - Best poster in category for Poster Presentation: “A mindfulness psychoeducational group intervention targeting sexual adjustment for women with Multiple Sclerosis and Spinal Cord injury: A pilot study” ASCIP conference Nashville TN   
  
CONTRIBUTION TO SCIENCE:   
2014-2017 - Nurse Coordinator, “Monitoring Autonomic Dysreflexia provoked by ejaculation in men with Spinal Cord Injury”   
May 2015 - Dec 2015 - Nurse Coordinator, "Lactation Questionnaire: Survey about the lactation experience of Women with SCI"   
2009-2012 - Principal Investigator, "A psychoeducational intervention targeting sexual function and body image in women with disability”, ICORD, Vancouver, BC   
2008 –2010 - Research Coordinator, Neil Squire Society: Sensory Substitution Device and SCI. BC Center for Sexual Medicine, Vancouver, BC   
  
Publications:   
Elliott, Stacy, Shea Hocaloski, and Marie Carlson. A Multidisciplinary Approach to Sexual and Fertility Rehabilitation: The Sexual Rehabilitation Framework. Topics in Spinal Cord Injury Rehabilitation 23.1 (2017): 49-56. DOI:http://dx.doi.org/10.1310/sci2301-49   
  
Vu V, Alford L, Nelson H, Carlson M, Lim K, Putterman J, Venables B, Dabrowska S, Beck S, Hocaloski S, Leung R, Basso M. (2016) Collaborative Care for a Pregnant Woman with Spinal Cord Injury. Ann Public Health Res   
  
Hocaloski S, Elliott S , Brotto L, Breckon E, McBride K. (2016) A Mindfulness Psychoeducational Group Intervention Targeting Sexual Adjustment for Women with Multiple Sclerosis and Spinal Cord Injury: A Pilot Study DOI: 10.1007/s11195-016-9426-z. Sex and Disability   
  
Presentations:   
Poster Presentation: “A mindfulness psychoeducational group intervention targeting sexual adjustment for women with Multiple Sclerosis and Spinal Cord injury: A pilot study” (2016). ASCIP conference Nashville TN   
  
Poster Presentation: “The impact of spinal cord injury (SCI) on the ability for women to breastfeed and lactate” (2016). ASCIP conference Nashville TN   
  
“The impact of spinal cord injury on Women’s fertility and lactation” (2016). ASCIP conference Nashville TN   
  
“Female fertility after SCI” (2016). Panel presentation ASCIP conference Nashville TN   
  
“Pleasure, orgasm and SCI Workshop” (2016). Panel presentation ASCIP conference Nashville TN   
  
“Sex and Disability” (2016). Options for Sexual Health educators training session   
  
Poster Presentation: “Perinatal Care for Women with SCI: Coming together to bridge the gaps” (2016). PRAXIS conference Vancouver BC   
  
Poster Presentation: “Developing an Intervention Targeting Sexual adjustment: What We Have Learned” (2016). ICORD Research Symposium Vancouver, BC   
  
“Sex and Disability” (2015). Options for Sexual Health educators training session   
  
Poster Presentation: “Perinatal Care for Women with SCI: Coming together to bridge the gaps” (2015). ASCIP Conference New Orleans, LA   
  
“Perinatal Care for Women with SCI: Coming together to bridge the gaps” (2015). Spinal Cord Injury Special Interest Group Workshop CAPM&R Vancouver, BC   
  
“Perinatal Care for Women with SCI: Coming together to bridge the gaps” (2015). ICORD Autonomic Symposium, Vancouver BC   
  
Poster Presentation: “Developing an Intervention Targeting Sexual adjustment: What We Have Learned” (2015). ISCOS Scientific Meeting Montreal, QC   
  
Poster Presentation: “Perinatal Care for Women with SCI: Coming together to bridge the gaps” (2015). ISCOS Scientific Meeting Montreal, QC   
  
Poster Presentation: Male Fertility in Canada: Towards Best Practice in Sperm Retrieval” (2015). ISCOS Scientific Meeting Montreal, QC   
  
“Sexuality and SCI” (2015). SCI Peer event panel discussion and facilitation of small group discussion Vancouver, BC   
  
“The Impact of Parkinson’s Disease on Sexuality” (2015). Parkinson’s support group Vancouver, BC   
  
“Sexual health issues in Disability” (2014). Options for Sexual Health educators training session   
  
Fraser Health Rehab Education Day: Sexuality and Disability. (2014). Royal Columbian Hospital   
  
Poster Presentation: “Perinatal Care for Women with SCI: A collaborative workshop” (2014). 6th National Spinal Cord Injury Conference, Toronto ON   
  
“Canadian Consensus on pregnancy following SCI” (2014). Pregnancy Symposium ISCOS scientific meeting, Maastrict Netherlands   
  
Poster Presentation: “Perinatal Care for Women with SCI: A collaborative workshop” (2014). ISCOS scientific meeting, Maastrict Netherlands   
  
“The impact of Parkinson’s Disease on Sexuality” (2014). North Shore Parkinson’s support Group, West Vancouver, BC   
  
“Sexual Health and You: A Clinician’s Guide to talking about “IT” (2014). TEVA Canada MS Nurses Conference, Vancouver BC   
  
“Sexual Health and You: A Clinician’s Guide to talking about “IT” (2013). Mary Pack Arthritis Program Education day, Vancouver, BC   
  
“Sexuality: Fact or Fiction. Myths, misconceptions, values and beliefs” (2013). Canadian Association of Rehabilitation Nursing Conference, Vancouver BC   
  
“Sexual Health and You: A Clinician’s Guide to talking about “IT” (2012). Pelvic Medicine Conference, Vancouver BC

***Karen Hodge, MSW, RCSW***  
Sunny Hill Health Centre

**CV:**  
PERSONAL STATEMENT:   
I sustained a spinal cord injury at age 15 and have since been dedicated to research, advocacy and involvement on a professional level. Currently I am a Registered Clinical Social Worker in a pediatric hospital. In 2013 I helped create and establish the Spinal Cord Injury Perinatal Interest Group which strives to bridge gaps that currently exist in access, knowledge and collaborative care to improve the experiences of women with SCI who are considering pregnancy and parenthood. This is a multi-disciplinary (nurses, researchers, physician, and mother with a SCI) with representation from multiple agencies (Spinal Cord Injury BC, BC Women’s Hospital, Vancouver Coastal Health).   
  
I have presented at international, national and local conferences and for various community groups. I have also worked as a sessional lecturer within the School of Social Work at the University of British Columbia on the topic of Disability and Social Policy and was invited as a guest speaker to numerous classes from an introductory level to the masters level to present on the topic of disability and social work practice.   
  
APPOINTMENTS/RELEVANT POSITIONS:   
• Project Manager, Complex Care Coordination, Sunny Hill Health Centre for Children (PHSA), Vancouver BC, August 2017 - August 2018 (one year secondment)   
• Clinical Social Worker, Neuromotor Program, Sunny Hill Health Centre for Children (PHSA), Vancouver BC, 2007- present   
• Critical Care Social Worker, Royal Columbian Hospital, New Westminster BC, April 2005 – 2010   
• Sessional Lecturer (4 week module), University of British Columbia School of Social Work, Vancouver BC, March 2009 and January 2011   
• Adolescent and Young Adult Program Social Worker, GF Strong Rehabilitation Centre, Vancouver BC, January 2006 – May 2006   
• Rehabilitation Counsellor, Canadian Paraplegic Association, Halifax NS, 2002-2003   
  
CONTRIBUTION TO SCIENCE:   
Oral presentations include:   
• Presented “Rolling into Motherhood: Parenting with a Disability and Young Children’s Mental Health” for the West Coast Association of Infant Mental Health (2017)   
• Presented “Healthy Mothers and Healthy Babies: Bridging the Gap in Perinatal Care for Women with Spinal Cord Injury” at the Perinatal Services of BC’s 2nd Biannual Conference, Health Mothers and Health Babies: Advances in Clinical Practice and Research Across the Continuum (2016).   
• Co-presented "Bridging the Gap: Perinatal Care for Women with Spinal Cord Injuries" at the Canadian Association of Physical and Rehabilitation Medicine Annual Conference (2015)   
• Presented “From Isolation to Collaboration: Becoming a mother after a spinal cord injury” at the Patient’s Voice Conference – an International Conference exploring the importance of the patient’s voice in health care professional education and professional development (2015)   
• Presentation “Mama Ride: A Personal Story of Pregnancy and the Postpartum Period” at the International Autonomic Symposium (2015)   
• Presented my personal story and facilitated group sessions at the Spinal Cord Injury Perinatal Interest Group’s international one day workshop for clinicians, researchers and women with SCI to share information, identify current gaps, and develop an action plan for the development of information resources and to increase awareness (Nov 2013)   
• Various Lunch and Learn sessions on the topic of pregnancy and parenting for clinicians at GF Strong Rehabilitation Centre (2014, 2015)   
• Various Lunch and Learn sessions for clinicians at Sunny Hill Health Centre for Children and BC Children’s Hospital (2009-present)

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Professor Krassioukov is a clinician-scientist and an internationally recognised leading expert in the area of autonomic dysfunctions following spinal cord injury (SCI). He obtained his MD degree in Russia, followed by successful PhD training and thesis defence at the Ivan Pavlov Institute of Physiology, St Petersburg, Russia.   
  
He is currently a professor at the Division of Physical Medicine and Rehabilitation, Department of Medicine, and co-director and a scientist at the International Collaboration on Repair Discovery (ICORD) at the University of British Columbia (UBC), Vancouver, BC, Canada. Dr. Krassioukov holds an endowed Chair in Spinal Cord Rehabilitation Research, UBC. He is also a staff physician at the SCI program at the GF Strong Rehabilitation Centre in Vancouver. Globally he is involved in leading organisations with focus on SCI, Including: Chair of the International Autonomic Standards Committee for the American Spinal Injury Association and International Spinal Cord Society (ASIA/ISCoS); Member of ISCOS Council; President elect of ASIA. Dr. Krassioukov’s research is supported by grants from the Canadian Institute for Health Research, Canadian Heart and Stroke Foundation, Canadian Foundation for Innovation, Rick Hansen Institute, H. Craig Neilsen Foundation, Christopher and Dana Reeve Foundation, Wings for Life and many others. He has published more than 220 peer-reviewed manuscripts, books, book chapters and reviews. He is a member of numerous advisory boards for the international agencies involved in research in the area of SCI and disability. Dr. Krassioukov’s work in the area of SCI has been recognised through numerous national and international awards including the inaugural Alan Brown Award from ASIA. In recognition of his research excellence and leadership he was elected as a fellow of the Canadian Academy of Health Sciences.   
  
POSITIONS   
  
2010 - Present   
Professor, Department of Medicine, Division of Physical Medicine and Rehabilitation,   
University of British Columbia, Vancouver, BC, Canada   
  
2008 - Present   
Associate Director, Rehabilitation, International Collaboration on Repair Discoveries   
(ICORD), UBC, Vancouver, BC, Canada   
  
2007 - Present   
Staff Physician, Spinal Cord Injury Program, Physical Medicine and Rehabilitation,   
Vancouver Acute (GF Strong), in the Department of Medicine, Division of Physical   
Medicine and Rehabilitation, Vancouver, BC, Canada   
  
2003 - Present   
Scientist, International Collaboration on Repair Discoveries (ICORD), UBC, Vancouver,   
BC, Canada   
  
HONORS:   
2014 / Endowed Chair in Spinal Cord Rehabilitation Research. International   
Collaboration on Repair Discoveries, University of British Columbia   
2014 / Horizon Interactive Awards, Bronze in Health/Human Services   
2014 / Horizon Interactive Awards, Bronze in Training/E-learning   
  
Publications   
  
2013 Peer Reviewed Manuscripts   
1. West CR, Alyahya A, Laher I, Krassioukov A. Peripheral vascular function in spinal cord injury: a systematic review. Spinal Cord. 2013 Jan; 51(1):10-9. (IF 1.9).   
2. West CR, Romer LM, Krassioukov A. Autonomic function and exercise performance in elite athletes with cervical spinal cord injury. Medicine and Science in Sports and Exercise. 2013 Feb; 45(2):261-7. (IF 5.3).   
3. Chhabra HS, Harvey LA, Muldoon S, Chaudhary S, Arora M, Brown DJ, Biering-Sorensen F, Wyndaele JJ, Charlifue S, Horsewell J, Ducharme S, Green D, Simpson D, Glinsky J, Weerts E, Upadhyay N, Aito S, Wing P, Katoh S, Kovindha A, Krassioukov A, Weeks C, Srikumar V, Reeves R, Siriwardane C, Hasnan N, Kalke YB, Lanig I. www.elearnSCI.org: a global educational initiative of ISCoS. Spinal Cord. 2013 Mar; 51(3):176-82. – 2014 Award winning manuscript. (IF 1.9).   
4. Tang A, Eng JJ, Tsang TS, Krassioukov AV. Cognition and motor impairment correlates with exercise test performance after stroke. Medicine and Science in Sports and Exercise. 2013 Apr; 45(4):622-7. (IF 5.3).   
5. Wong S, Bredin S, Krassioukov A., Taylor A, Warburton D. Effects of training status on arterial compliance in able-bodied persons and persons with spinal cord injury. Spinal Cord. 2013 Apr; 51(4):278-81. (IF 1.9).   
6. Phillips AA, Krassioukov AV, Zheng MM, Warburton DE. Neurovascular coupling of the posterior cerebral artery in spinal cord injury: a pilot study. Brain Sciences. 2013 May 8; 3(2):781-9. (IF 2.5).   
7. Furlan JC, Sakakibara BM, Miller WC, Krassioukov AV. Global incidence and prevalence of traumatic spinal cord injury. Canadian Journal of Neurological Sciences. 2013 Jul; 40(4):456-64. (IF 1.1).   
8. Cragg JJ, Krassioukov AV. Pearls and oysters: transient Horner syndrome associated with autonomic dysreflexia. Neurology. 2013 Aug 6; 81(6):e35-7. (IF 8.3).   
9. Cragg JJ, Noonan VK, Krassioukov A, Borisoff J. Cardiovascular disease and spinal cord injury: results from a national population health survey. Neurology. 2013 Aug 20; 81(8):723-8. (IF 8.3)   
10. Lam T, Chen Z, Sayed-Ahmed MM, Krassioukov A, Al-Yahya AA. Potential role of oxidative stress on the prescription of rehabilitation interventions in spinal cord injury. Spinal Cord. 2013 Sep; 51(9):656-62. (IF 1.9).   
11. Phillips AA, Ainslie P, Krassioukov AV, Warburton DE. Regulation of cerebral blood flow after spinal cord injury. Journal of Neurotrauma. 2013 Sep 15; 30(18): 1551-63. (IF 4.3).   
12. West CR, Bellantoni A, Krassioukov AV. Cardiovascular function in individuals with incomplete spinal cord injury: a systematic review. Topics in Spinal Cord Injury Rehabililitation. 2013 Fall; 19(4):267-78. (IF 1.3).   
13. Liu N, Krassioukov AV. Postpartum hypogalactia in a woman with Brown-Séquard-plus syndrome: a case report. Spinal Cord. 2013 Oct; 51(10):794-6. (IF 1.9).   
14. Liu N, Zhou MW, Krassioukov AV, Biering-Sørensen F. Training effectiveness when teaching the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI) to medical students. Spinal Cord. 2013 Oct; 51(10):768-71. (IF 1.9).   
15. Hector SM, Biering-Sørensen T, Krassioukov A, Biering-Sørensen F. Cardiac arrhythmias associated with spinal cord injury. The Journal of Spinal Cord Medicine. 2013 Nov; 36(6):591-9. (IF 2.1).   
16. Liu N, Fougere R, Zhou MW, Nigro MK, Krassioukov AV. Autonomic dysreflexia severity during urodynamics and cystoscopy in individuals with spinal cord injury. Spinal Cord. 2013 Nov; 51(11):863-7. (IF 1.9).   
17. Cragg JJ, Noonan VK, Dvorak M, Krassioukov A, Mancini GB, Borisoff JF. Spinal cord injury and type 2 diabetes: results from a population health survey. Neurology. 2013 Nov 19; 81(21):1864-8. (IF 8.3).   
  
2014 Peer Reviewed Manuscripts   
18. Wan D, Krassioukov AV. Life-threatening outcomes associated with autonomic dysreflexia: a clinical review. The Journal of Spinal Cord Medicine. 2014 Jan; 37(1):2-10. (IF 2.1).   
19. West CR, Wong SC, Krassioukov AV. Autonomic cardiovascular control in Paralympic athletes with spinal cord injury. Medicine and Science in Sports and Exercise. 2014 Jan; 46(1):60-8. (IF 5.3).   
20. Tang A, Eng JJ, Brasher PM, Madden KM, Mohammadi A, Krassioukov AV, Tsang TS. Physical activity correlates with arterial stiffness in community-dwelling individuals with stroke. Journal of Stroke and Cerebrovascular Diseases. 2014 Feb; 23(2):259-66. (IF 1.9).   
21. Liu N, Krassioukov AV. Response to ‘Breastfeeding by women with tetraplegia: some evidence for optimism’. Spinal Cord. 2014 Mar; 52(3):256. (IF 1.9).   
22. Bartholdy K, Biering-Sørensen T, Malmqvist L, Ballegaard M, Krassioukov A, Hansen B, Svendsen JH, Kruse A, Welling KL, Biering-Sørensen F. Cardiac arrhythmias the first month after acute traumatic spinal cord injury. The Journal of Spinal Cord Medicine. 2014 Mar; 37(2):162-70. (IF 2.1).   
23. Phillips AA, Krassioukov AV, Ainslie PN, Warburton DE. Perturbed and spontaneous regional cerebral blood flow responses to changes in blood pressure after high level spinal cord injury: the effect of midodrine. Journal of Applied Physiology (1985). 2014 Mar 15; 116(6):645-53. (IF 3.4).   
24. Currie KD, Hubli M, Krassioukov AV. Applanation tonometry: a reliable technique to assess aortic pulse wave velocity in spinal cord injury. Spinal Cord. 2014 Apr; 52(4):272-5. (IF 1.9).   
25. West CR, Crawford MA, Poormasjedi-Meibod MS, Currie KD, Fallavollita A, Yuen V, McNeill JH, Krassioukov AV. Passive hind-limb cycling improves cardiac function and reduces cardiovascular disease risk in experimental spinal cord injury. The Journal of Physiology. 2014 Apr 15; 592(8):1771-83. (IF 3.4).   
26. Phillips AA, Warburton DE, Ainslie PN, Krassioukov AV. Regional neurovascular coupling and cognitive performance in those with low blood pressure secondary to high-level spinal cord injury: improved by alpha-1 agonist midodrine hydrochloride. Journal of Cerebral Blood Flow and Metabolism. 2014 May;34(5):794-801. (IF 5.4).   
27. Hubli M, Krassioukov AV. Ambulatory blood pressure monitoring in spinal cord injury: clinical practicability. Journal of Neurotrauma. 2014 May 1;31(9):789-97. (IF 4.3).   
28. Faaborg PM, Christensen P, Krassioukov A, Laurberg S, Frandsen E, Krogh K. Autonomic dysreflexia during bowel evacuation procedures and bladder filling in subjects with spinal cord injury. Spinal Cord. 2014 Jun;52(6):494-8. (IF 1.9).   
29. Phillips AA, Krassioukov AV, Ainslie PN, Cote AT, Warburton DE. Increased central arterial stiffness explains baroreflex dysfunction in spinal cord injury. Journal of Neurotrauma. 2014 Jun 15;31(12):1122-8. (IF 4.3).   
30. Krassioukov A, West C. The role of autonomic function on sport performance in athletes with spinal cord injury. Phys Med and Rehab. 2014 Aug;6(8 Suppl):S58-65. (IF 2.1).   
31. Tomasone JR, Martin Ginis KA, Pulkkinen W, Krassioukov A. The "ABCs of AD": A pilot test of an online educational module to increase use of the autonomic dysreflexia clinical practice guidelines among paramedic and nurse trainees. Journal of Spinal Cord Medicine. 2014 Sep; 37(5):598-607. (IF 2.1).   
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36. Hubli M, Currie KD, West CR, Gee CM, Krassioukov AV. Physical exercise improves arterial stiffness after spinal cord injury. Journal of Spinal Cord Medicine. 2014 Nov;37(6):782-5. (IF 2.1).   
  
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41. Phillips AA, Elliott SL, Zheng MM, Krassioukov AV. Selective alpha adrenergic antagonist reduces severity of transient hypertension during sexual stimulation after spinal cord injury. J Neurotrauma. 2015 Mar 15;32(6):392-6. (IF 5.2).   
42. Hubli M, Krassioukov AV. How reliable are sympathetic skin responses in subjects with spinal cord injury? Clin Auton Res. 2015 Apr;25(2):117-24. (IF 1.7).   
43. Zheng MM, Phillips AA, Elliott SL, Krassioukov AV. Prazosin: a potential new management tool for iatrogenic autonomic dysreflexia in individuals with spinal cord injury? Neural Regen Res. 2015 Apr;10(4):557-8. (IF 0.9).   
44. Squair JW, West CR, Krassioukov AV. Neuroprotection, Plasticity Manipulation, and Regenerative Strategies to Improve Cardiovascular Function following Spinal Cord Injury. J Neurotrauma. 2015 May 1;32(9):609-21. (IF 5.2).   
45. Currie KD, West CR, Hubli M, Gee CM, Krassioukov AV. Peak heart rates and sympathetic function in tetraplegic nonathletes and athletes. Med Sci Sports Exerc. 2015 Jun;47(6):1259-64. (IF 4.4)   
46. Krassioukov A, Tomasone JR, Pak M, Craven BC, Ghotbi MH, Ethans K, Martin Ginis KA, Ford M,Krassioukov-Enns D. "The ABCs of AD": A prospective evaluation of the efficacy of an educational intervention to increase knowledge of autonomic dysreflexia management among emergency health care professionals. J Spinal Cord Med. 2016;39(2):190-6. (IF 2.1).   
47. West CR, Popok D, Crawford MA, Krassioukov AV. Characterizing the temporal development of cardiovascular dysfunction in response to spinal cord injury. J Neurotrauma. 2015 Jun 15;32(12):922-30. (IF 5.2).   
48. Clark JF, Mealing SJ, Scott DA, Vogel LC, Krassioukov A, Spinelli M, Bagi P, Wyndaele JJ. A Cost-effectiveness analysis of long-term intermittent catherterisation with hydrophilica and uncoated catheters. Spinal Cord. 2016 Jan;54(1):73-7. (IF 1.9).   
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50. Liu N, Zhou M, Biering-Sørensen F, Krassioukov AV. Iatrogenic urological triggers of autonomic dysreflexia: a systematic review. Spinal Cord. 2015 Jul;53(7):500-9 (IF 1.9).   
51. Gee CM, West CR, Krassioukov AV. Boosting in Elite Athletes with Spinal Cord Injury: A Critical Review of Physiology and Testing Procedures. Sports Med. 2015 Aug;45(8):1133-42 (IF 6.7).   
52. West CR, Gee CM, Voss C, Hubli M, Currie KD, Schmid J, Krassioukov AV. Cardiovascular control, autonomic function, and elite endurance performance in spinal cord injury. Scand J Med Sci Sports. 2015 Aug;25(4):476-85. (IF 3.7).   
53. Squair JW, Le Nobel G, Noonan VK, Raina G, Krassioukov AV. Assessment of clinical adherence to the international autonomic standards following spinal cord injury. Spinal Cord. 2015 Sep;53(9):668-72 (IF 1.9).   
54. Currie KD, Krassioukov AV. A walking disaster: a case of incomplete spinal cord injury with symptomatic orthostatic hypotension. Clin Auton Res. 2015 Oct;25(5):335-7. (IF 1.9).   
55. Lam T, Pauhl K, Ferguson A, Malik RN, BKin, Krassioukov A, Eng JJ. Training with robot-applied resistance in people with motor-incomplete spinal cord injury; Pilot Study. J Rehabil Res Dev. 2015;52(1)113-29 (IF 1.8).   
56. Malmqvist L, Biering-Sørensen T, Bartholdy K, Krassioukov A, Welling KL, Svendsen JH, Kruse A, Hansen B, Biering-Sørensen F. Response to 'Estimating the autonomic function from heart rate variability in mechanically ventilated patients after spinal cord injury'. Spinal Cord. 2015 Nov;53(11):839-40. (IF 1.9).   
57. Phillips AA, Chan FH, Zheng MM, Krassioukov AV, Ainslie PN. Neurovascular coupling in humans: Physiology, methodological advances and clinical implications. J Cereb Blood Flow Metab. 2016 Apr;36(4):647-64. (IF 5.4).   
58. West CR, Currie KD, Gee C, Krassioukov AV, Borisoff J. Active-Arm Passive-Leg Exercise Improves Cardiovascular Function in Spinal Cord Injury. Am J Phys Med Rehabil. 2015 Nov;94(11) (IF 0.7)   
59. Phillips AA, Krassioukov AV. Contemporary Cardiovascular Concerns after Spinal Cord Injury: Mechanisms, Maladaptations, and Management. J Neurotrauma. 2015 Dec 15;32(24):1927-42 (IF 5.2).   
  
2016 Peer Reviewed Manuscripts   
60. Phillips AA, Ainslie P, Warburton DE, and Krassioukov AV. Cerebral Blood Flow Responses to Autonomic Dysreflexia in Humans with Spinal Cord Injury. Journal of Neurotrauma. 2016 Feb 1;33(3):315-8. (IF 5.3).   
61. Phillips AA, Matin N, Frias B, Zheng MM, Jai M, West C, Dorrance AM, Laher I, Krassioukov AV. Rigid and remodelled: Cerebrovascular structure and function after experimental high-thoracic spinal cord transection. J Physiol. 2015 2016 Mar 15;594(6):1677-88. (IF 4.7)   
62. Aslan SC, Randall DC, Krassioukov AV, Phillips A, Ovechkin AV. Respiratory Training Improves Blood Pressure Regulation in Individuals With Chronic Spinal Cord Injury. Arch Phys Med Rehabil. 2016 Jun;97(6):964-73. (IF 3.3).   
63. West CR and Krassioukov AV. Autonomic cardiovascular control and sports classification in Paralympic athletes with spinal cord injury. Disabil Rehabil. 2016 Jan5: 1-8 (IF 1.9).   
64. Chan CW, Eng JJ, Tator CH, Krassioukov A. Spinal Cord Injury Research Evidence Team. Epidemiology of sport-related spinal cord injuries. A systemic review. J Spinal Cord Med. 2016 Feb 11 (IF 2.1).   
65. Fougere RJ, Currie KD, Nigro MK, Stothers L, Rapoport D, Krassioukov AV. Reduction in Bladder-Related Autonomic Dysreflexia after OnabotulinumtoxinA Treatment in Spinal Cord Injury. J Neurotrauma. 2016 Apr 13. (IF 5.2).   
66. Squair JW, White BA, Bravo GI, Martin Ginis KA, Krassioukov AV. The Economic Burden of Autonomic Dysreflexia during Hospitalization for Individuals with Spinal Cord Injury. J Neurotrauma. 2016 Aug 1;33(15):1422-7. (IF 5.2).   
67. Currie KD, West CR, Krassioukov AV. Differences in Left Ventricular Global Function and Mechanics in Paralympic Athletes with Cervical and Thoracic Spinal Cord Injuries. Front Physiol. 2016 Mar 29;7:110. eCollection 2016. (IF 4.1).   
68. Tate DG, Forchheimer M, Rodriguez G, Chiodo A, Cameron AP, Meade M, Krassioukov A. Risk Factors Associated With Neurogenic Bowel Complications and Dysfunction in Spinal Cord Injury. Arch Phys Med Rehabil. 2016 Apr 22. (IF 1.9)   
69. Squair JW, Phillips AA, Harmon M, Krassioukov AV. Emergency management of autonomic dysreflexia with neurologic complications. CMAJ. 2016 May 24. pii: cmaj.151311. (IF 6.9).   
70. Davidson R, Elliott S, Krassioukov A. Cardiovascular Responses to Sexual Activity in Able-Bodied Individuals and Those Living with Spinal Cord Injury. J Neurotrauma. 2016 May 31. (IF 5.2).   
71. Bauman WA, Krassioukov A, Biering-Sørensen F. Version 2.0 of the international spinal cord injury endocrinology and metabolic function basic data set. Spinal Cord. 2016 Jul 12. (IF 1.9).   
72. Phillips AA, Hansen A, Krassioukov AV. In with the new and out with the old: enter multivariate wavelet decomposition, exit transfer function. Am J Physiol Heart Circ Physiol. 2016 Sep 1;311(3):H735-7. (IF 3.5).   
73. Liu N, Zhou MW, Biering-Sørensen F, Krassioukov AV. Cardiovascular response during urodynamics in individuals with spinal cord injury. Spinal Cord. 2016 Aug 2 (IF 1.9).   
74. Currie KD, West CR, Stöhr EJ, Krassioukov AV. Left ventricular mechanics in untrained and trained males with tetraplegia. J Neurotrauma. 2016 Aug 3. (IF 5.2).   
75. Popok D, West C, Frias B, Krassioukov AV. Development of an Algorithm to Perform a Comprehensive Study of Autonomic Dysreflexia in Animals with High Spinal Cord Injury Using a Telemetry Device. J Vis Exp. 2016 Jul 29;(113). (IF 1.6).   
76. Popok D, West CR, Hubli M, Currie KD, Krassioukov AV. Characterising the severity of autonomic cardiovascular dysfunction after spinal cord injury using a novel 24 hour ambulatory blood pressure analysis software. J Neurotrauma. 2016 Aug 29. (IF 5.2).   
77. Zbogar D, Eng JJ, Miller WC, Krassioukov AV, Verrier MC. Reliability and validity of daily physical activity measures during inpatient spinal cord injury rehabilitation. SAGE Open Medicine. 2016 Aug 03. (4)1-9. (IF 0.5).   
78. Martin Ginis KA, Tomasone JR, Welsford M, Ethans K, Sinden AR, Longeway M, Krassioukov A. Online training improves paramedics' knowledge of autonomic dysreflexia management guidelines. Spinal Cord. 2016 Sep 13. (IF 1.9).   
79. Round AM, Park SE, Walden K, Noonan VK, Townson AF, Krassioukov AV. An evaluation of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury: input from the international community. Spinal Cord. 2017 Feb;55(2):198-203. (IF 1.9).   
80. Zbogar D, Eng JJ, Miller WC, Krassioukov AV, Verrier MC. Physical activity outside of structured therapy during inpatient spinal cord injury rehabilitation. J Neuroeng Rehabil. 2016 Nov 15;13(1):99. (IF 3.9).   
81. Tang A, Eng JJ, Krassioukov AV, Tsang TS, Liu-Ambrose T. High- and low-intensity exercise do not improve cognitive function after stroke: A randomized controlled trial. J Rehabil Med. 2016 Nov 11;48(10):841-846. (IF 2.1).   
82. Zbogar D, Eng JJ, Miller WC, Krassioukov AV, Verrier MC. Movement repetitions in physical and occupational therapy during spinal cord injury rehabilitation. Spinal Cord. 2017 Feb;55(2):172-179. (IF 1.9).   
83. West CR, Squair JW, McCracken L, Currie KD, Somvanshi R, Yuen V, Phillips AA, Kumar U, McNeill JH, Krassioukov AV. Cardiac Consequences of Autonomic Dysreflexia in Spinal Cord Injury. Hypertension. 2016 Nov;68(5):1281-1289. (IF 6.7).   
84. Phillips AA, Chan FH, Zheng MM, Krassioukov AV, Ainslie PN. Neurovascular coupling in humans: Physiology, methodological advances and clinical implications. J Cereb Blood Flow Metab. 2016 Apr;36(4):647-64. (IF 5.5).   
85. West CR, Crawford MA, Laher I, Ramer MS, Krassioukov AV. Passive Hind-Limb Cycling Reduces the Severity of Autonomic Dysreflexia After Experimental Spinal Cord Injury. Neurorehabil Neural Repair. 2016 May;30(4):317-27. (IF 4.6).   
86. Krassioukov A, Tomasone JR, Pak M, Craven BC, Ghotbi MH, Ethans K, Martin Ginis KA, Ford M, Krassioukov-Enns D. "The ABCs of AD": A prospective evaluation of the efficacy of an educational intervention to increase knowledge of autonomic dysreflexia management among emergency health care professionals. J Spinal Cord Med. 2016;39(2):190-6. (IF 2.1).   
  
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87. West CR, Krassioukov AV. Autonomic cardiovascular control and sports classification in Paralympic athletes with spinal cord injury. Disabil Rehabil. Jan 2017;39(2):127-134 (IF 1.9)   
88. Davidson RA, Carlson M, Fallah N, Noonan VK, Elliott SL, Joseph J, Smith KM, Krassioukov AV. Inter-Rater Reliability of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury. J Neurotrauma. Feb 2017;34(3):552-558. (IF 5.2).   
89. Bauman WA, Krassioukov A, Biering-Sørensen F. Version 2.0 of the international spinal cord injury endocrinology and metabolic function basic data set. Spinal Cord. Mar 2017 ;55(3):327-328. (IF 1.9).   
90. Squair JW, West CR, Popok D, Assinck P, Liu J, Tetzlaff W, Krassioukov AV. High Thoracic Contusion Model for the Investigation of Cardiovascular Function after Spinal Cord Injury. J Neurotrauma. Jan 2017;34(3):671-684. (IF 5.2).   
91. Liu N, Zhou MW, Biering-Sørensen F, Krassioukov AV. Cardiovascular response during urodynamics in individuals with spinal cord injury. Spinal Cord. Mar 2017;55(3):279-284. (IF 1.9).   
92. Currie KD, West CR, Stöhr EJ, Krassioukov AV. Left Ventricular Mechanics in Untrained and Trained Males with Tetraplegia. J Neurotrauma. Feb 2017;34(3):591-598. (IF 5.2).   
93. Popok DW, West CR, Hubli M, Currie KD, Krassioukov AV. Characterizing the Severity of Autonomic Cardiovascular Dysfunction after Spinal Cord Injury Using a Novel 24 Hour Ambulatory Blood Pressure Analysis Software. J Neurotrauma. Feb 2017;34(3):559-566. (IF 5.2).   
94. Martin Ginis KA, Tomasone JR, Welsford M, Ethans K, Sinden AR, Longeway M, Krassioukov A. Online training improves paramedics' knowledge of autonomic dysreflexia management guidelines. Spinal Cord. Feb 2017;55(2):216-222. (IF 1.9).   
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96. Lee AH, Phillips AA, Krassioukov AV. Increased Central Arterial Stiffness after Spinal Cord Injury: Contributing Factors, Implications, and Possible Interventions. J Neurotrauma. Mar 2017;34(6):1129-1140. (IF 5.2).   
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99. Phillips AA, Squair JW, Krassioukov AV. Paralympic Medicine: The Road to Rio. J Neurotrauma. Jan 2017;34(11):2001-2005.(IF 5.2).   
100. Davidson R, Elliott S, Krassioukov A. Response to Alexander and Courtois, "Blood Pressure during Sexual Activity after SCI Inaccurately Portrayed". J Neurotrauma. 2017 Feb 27. (IF 5.2).   
101. Popok DW, West CR, McCracken L, Krassioukov AV. Effects of early and delayed initiation of exercise training on cardiac and haemodynamic function after spinal cord injury. Exp Physiol. 2017 Feb 1;102(2):154-163. (IF 2.9).   
102. Biering-Sørensen F, Alexander MS, van Asbeck FW, Donovan W, Krassioukov A, Post MW. Version 1.1 of the international spinal cord injury skin and thermoregulation function basic data set. Spinal Cord. 2017 Jun;55(6):566-569. (IF 1.9).   
103. Biering-Sørensen F, Biering-Sørensen T, Liu N, Malmqvist L, Wecht JM, Krassioukov A. Alterations in cardiac autonomic control in spinal cord injury. Auton Neurosci. 2017 Feb 15. (IF 2.2).   
104. Squair JW, Phillips AA, Currie KD, Gee C, Krassioukov AV. Autonomic testing for prediction of competition performance in Paralympic athletes. Scand J Med Sci Sports. 2017 Feb 15. (IF 3.7)   
105. Harvey LA, Post MW, Steeves JD, Alexander MS, Krassioukov A. Routine checking of all manuscripts for plagiarism and duplicate publications.Spinal Cord. 2017 May;55(5):427. (IF 1.9).   
106. Berger MJ, Kimpinski K, Currie KD, Nouraei H, Sadeghi M, Krassioukov AV. Multi-domain assessment of autonomic function in spinal cord injury using a modified autonomic reflex screen. J Neurotrauma. 2017 May 24. In Press. (IF 5.2).   
  
Presentations   
  
2012   
1. Krassioukov, A., Gao, F., Li, J., Pak, M., Chan, C. Cognitive dysfunctions among spinal cord injured individuals with autonomic dysreflexia: a pilot study. ASIA 38th Annual Scientific Meeting, Denver, CO, USA. April 19-21, 2012 (Topics in Spinal Cord Injury Rehabilitation, 18 (Suppl. 1): 206).   
2. Pak, M., Harkema, S., Vogel, L., Williams, S., Krassioukov, A. Management of autonomic dysreflexia by emergency medical services: existing gaps in knowledge. ASIA 38th Annual Scientific Meeting, Denver, CO, USA. Apr 19-21 2012 (Topics in Spinal Cord Injury Rehabilitation, 18 (Suppl. 1): 214).   
3. West, C., Ramer, L., Inskip, J., Ramer, M., Laher, I., Krassioukov, A. Vasculature changes following repetitive episodes of autonomic dysreflexia in rats with spinal cord injury. ASIA 38th Annual Scientific Meeting, Denver, CO, USA. Apr 19-21 2012 (Topics in Spinal Cord Injury Rehabilitation, 18 (Suppl. 1): 215).   
4. Moniri, N., Ramer, M., Laher, I., Krassioukov, A. Vascular changes in spinal cord injured animals with repetitive episodes of autonomic dysreflexia. ASIA 38th Annual Scientific Meeting, Denver, CO, USA. April 19-21, 2012(Topics in Spinal Cord Injury Rehabilitation, 18 (Suppl. 1): 220).   
5. Davidson, R., Krassioukov, A.V., Elliott, S.L. Cardiovascular Responses to Sexual activity Following Spinal Cord Injury. GF Strong Research Conference, Vancouver, BC, May 6 2012.   
6. West, C., Krassioukov, A. Abdominal binding and cardiorespiratory function during exercise in athletes with cervical spinal cord injury. American College of Sports Medicine Conference, San Francisco, CA, May 29-June 2, 2012.   
7. Faaborg, P., Christensen, P., Krassioukov, A., Laurberg, S., Krogh, K. Autonomic dysreflexia during bowel evacuation and bladder filling in high spinal cord injury. The International Spinal Cord Society 51st Annual Scientific Meeting, London, UK, September 3-5, 2012.   
8. Huang, D., Oxciano, P., Yan, D., Harkema, S., Krassioukov, A. Revisiting neurogenic shock. Blood pressure control in acute period of spinal cord injury. The International Spinal Cord Society 51st Annual Scientific Meeting, London, UK, September 3-5, 2012.   
9. Krassioukov, A., Wong, S., Mills, P., Krassioukov-Enns, D., Mikhail, D. Is there a relationship between Paralympic classification, autonomic symptoms and altered cardiovascular control among elite wheelchair athletes? The International Spinal Cord Society 51st Annual Scientific Meeting, London, UK, September 3-5, 2012.   
10. West, C., Cregg, J., Inskip, J., Krassioukov, A. Effect of hind-limb cycling on severity of orthostatic hypotension and autonomic dysreflexia in rats with spinal cord injury. The International Spinal Cord Society 51st Annual Scientific Meeting, London, UK, September 3-5, 2012.   
11. Wong, S., Mills, P., Krassioukov, A. Autonomic assessment of Paralympians: heart rate variability reveals differences in autonomic control among wheelchair rugby athletes with cervical spinal cord injury. The International Spinal Cord Society 51st Annual Scientific Meeting, London, UK, September 3-5, 2012.   
2013   
12. Hubli M, Krassioukov AV. 24-hour blood pressure monitoring in subjects with spinal cord injury. Best oral presentation award. 4th Annual GF Strong Rehabilitation Research Conference, Vancouver, Canada. May 1, 2013.   
13. West CR, Crawford MA, Yuen J, Golbidi S, Ramer M, Laher I, Krassioukov AV. Exercise Reduces the Severity of Autonomic Dysreflexia in Rodents with Complete Spinal Cord Injury. ASIA 40th Anniversary Annual Scientific Meeting, Chicago, Illinois, May 6-8, 2013.   
14. Cragg JJ, Noonan V, Krassioukov A, Borisoff J. Cardiovascular Disease and Spinal Cord Injury: Results from a National Population Health Survey. ASIA 40th Anniversary Annual Scientific Meeting, Chicago, Illinois, May 6-8, 2013.   
15. Liu N, Fougere R, Zhou M, Krassioukov A. Blood Pressure Changes During Urodynamics in Individuals with Spinal Cord Injury. ASIA 40th Anniversary Annual Scientific Meeting, Chicago, Illinois, May 6-8, 2013. Topics in Spinal Cord Injury Rehabilitation, Volume 19, P29.   
16. Wan D, Krassioukov A. Life-Threatening Outcomes Associated with Autonomic Dysreflexia: A Clinical Review. ASIA 40th Anniversary Annual Scientific Meeting, Chicago, Illinois, May 6-8, 2013.   
17. Krassioukov A, Walden K, Townson A. Evaluation of a Knowledge Translation Activity for the Use of the International Standards to Document Remaining Autonomic Function After SCI. ASIA 40th Anniversary Annual Scientific Meeting, Chicago, Illinois, May 6-8, 2013.   
18. Krassioukov A. Paralympics wheelchair athletes: challenges on the way to the GOLD. 40th Anniversary conference of the American Spinal injury Assoiciation (ASIA). Chicago, USA, May 6-8, 2013. Abstract.   
19. Krassioukov AV, Davidson R, Walden K. International Standards for Autonomic Function Guideline and Practical Assessment Review. Academy of Spinal Cord Injury Professionals Conference; Las Vegas NV USA; September 2-4, 2013.   
20. Nan Liu, Fougere R, Liu N, Zhou M, Krassioukov AV. Cardiovascular Parameter Changes During Urodynamics In Individuals With Spinal Cord Injury. Academy of Spinal Cord Injury Professionals Conference; Las Vegas NV USA; September 2-4, 2013. Poster Abstracts P44. Abstract published on the Journal of Spinal Cord Medicine, 2013 vol. 36, no. 5, p553.   
21. West CR, Crawford MA, Poormasjedi-Meibod M-S, Currie KD, Yuen V, McNeill JH, Krassioukov AV. Cardio-protective effects of passive hind-limb cycling in spinal cord injury. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
22. Currie KD, West CR, Hubli M, Gee CM, Krassioukov AV. Peak Exercise Heart Rates and Sympathetic Function: A Comparison between Athletes and Non-Athletes with Spinal Cord Injury. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
23. Hubli M, Gee CM, Krassioukov AV. Assessment tools for blood pressure derangements after spinal cord injury. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
24. Fougere R, Liu N, Zhou M, Krassioukov AV. Cardiovascular parameter changes during urodynamics in individuals with spinal cord injury. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
25. Popok D, West CR, Crawford MA, Krassioukov AV. Spontaneous episodes of autonomic dysreflexia and circadian oscillations in autonomic functions following spinal cord injury. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
26. Gray D, Hubli M, Krassioukov AV, Mills P. Transcranial electrical stimulation improves orthostatic hypotension secondary to traumatic cervical spinal cord injury: a case study. The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
27. Davidson RA, Carlson M, Krassioukov AV, Noonan V, Elliott SL. Inter-rater reliability of the bladder, bowel and sexual function section of the International Standards to Document Remaining Autonomic Function Following Spinal Cord Injury (ISAFSCI). The 2nd International Symposium on Autonomic Dysfunctions Following SCI, Vancouver, BC, Canada. November 27th, 2013.   
  
2014   
28. Cragg JJ\*, Kramer JK, Noonan VK, Krassioukov A, Mancini GBJ, Noreau L, Patrick D, Borisoff JF. Risk and mechanisms of cardiovascular disease following spinal cord injury: national health studies. ICORD Annual Research Meeting, Vancouver, Canada. March 4-5, 2014. Top Poster Award.   
29. Gee CM, West CR, Voss C, Hubli M, Currie KD, Krassioukov AV. Autonomic integrity, exercise heart rate, and performance in elite tetraplegic para-cyclists. ICORD Annual Research Meeting, Vancouver, Canada. March 4-5, 2014. Poster Presentation.   
30. Aaron A. Phillips, Darren E.R. Warburton, Philip N. Ainslie, Andrei V. Krassioukov. Regional cerebral blood flow responses to rapid reductions in blood pressure after high level spinal cord injury: the effect of alpha1-agonist. Experimental Biology. San Diego, CA, USA. April 26-30. Oral Presentation.   
31. Currie KD, West CR, Hubli M, Gee CM, Krassioukov AV. Peak Exercise Heart Rates and Sympathetic Function: A Comparison between Athletes and Non-Athletes with Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P17.   
32. Hubli M, Currie KD, West CR, Gee CM, Krassioukov AV. Arterial Stiffness after Spinal Cord Injury: Athletes Versus Non-athletes. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P17.   
33. West CR, Crawford MA, Poormasjedi-Meibod M-S, Currie KD, Yuen VG, McNeill JH, Krassioukov AV. A Novel Mechanistic Insight Into Cardiac Dysfunction After Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P20.   
34. Popok DW, West CR, Crawford MA, Krassioukov AV. Spontaneous Episodes of Autonomic Dysreflexia and Circadian Oscillations in Autonomic Functions Following Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P21.   
35. Phillips AA, Warburton DER, Ainslie PN, Krassioukov AV. Neurovascular Coupling and Cognitive Performance is Enhanced by Acutely Increasing Blood Pressure in Those With High Level Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P21.   
36. Davidson RA, Carlson M, Krassioukov AV, Noonan VK, Elliott SL. Interrater Reliability of the Bladder, Bowel and Sexual Function Section of the International Standards to Document Remaining Autonomic Function Following Spinal Cord Injury (ISAFSCI). ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P25.   
37. Fougere RJ, Nigro MK, Rapoport D, Krassioukov AV. Effect of Intravesical Onabotulinumtoxin. A Treatment on Autonomic Dysreflexia Following Spinal Cord Injury. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P55.   
38. Fougere RJ, Liu N, Zhou M, Krassioukov AV. Cardiovascular Parameter Changes in Individuals With Spinal Cord Injury: A Retrospective Review. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P71.   
39. Gray D, Hubli M, Krassioukov AV, Patricia Mills. Transcranial Electrical Stimulation Improves Orthostatic Hypotension Secondary to Traumatic Cervical Spinal Cord Injury: A Case Study. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P71.   
40. Cragg JJ, Noonan VK, Dvorak M, Krassioukov A, Mancini G.B. J. Spinal Cord Injury and Type 2 Diabetes: Results From a Population Health Survey. ASIA 2014 Annual Scientific Meeting, San Antonio, Texas, May 14-17, 2014. Topics in Spinal Cord Injury Rehabilitation, Volume 20 Supplement 1, P79.   
41. Huang D., Oxciano P., Yan D., Harkema S., Andrei Krassioukov. Incidence of neurogenic shock in the emergency department following acute spinal cord injury. Canadian Association of Emergency Physicians 2014 National Conference. Ottawa, ON, Canada. May 31-Jun 4, 2014   
42. Fougere RJ, Nigro MK, Rapoport D, Krassioukov AV. Effect of intravesical Botox treatment on autonomic dysreflexia following spinal cord injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
43. Currie KD, Cotie LM, Hubli M, West CR, Assinck P, MacDonald MJ, Krassioukov AV. Preservation of brachial artery endothelial function in Paralympic athletes. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014. Best Presentation – 2nd Place.   
44. West CR, Crawford MA, Krassioukov AV. Effect of Passive Hind Limb Cycling on Cardiovascular Function Following Acute or Chronic Experimental Spinal Cord Injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
45. McCracken LA, West CR, Phillips AA, Krassioukov AV. Effect of Induced Autonomic Dysreflexia on Cardiac Function Following Experimental Spinal Cord Injury. 2014 ICORD Trainee Symposium, Oral presentation, Vancouver, Canada. June 3, 2014.   
46. Berger MJ, Hubli M and Krassioukov AV. Sympathetic Skin Responses and Autonomic Dysfunction in Spinal Cord Injury. 62nd Canadian Association of Physical Medicine and Rehabilitation Annual Scientific Meeting, St. John's, NFLD. June18-21, 2014.   
47. Currie KD, Hubli M, Gee CM, West CR, Krassioukov AV. Sex-specific differences in cardiovascular parameters in spinal cord injured individuals. North American Artery Annual Conference. Chicago, IL.USA, September 5-6, 2014.   
48. Cragg JJ\*, Kramer JK, Noonan VK, Krassioukov A, Mancini GBJ, Noreau L, Patrick D, Borisoff JF. Risk and mechanisms of cardiovascular disease following spinal cord injury: national health studies. 2nd International Spinal Cord Injury & Neurotrauma Summer School 2014, Toledo, Spain.   
49. Cragg JJ\*, Noonan VK, Krassioukov A, Mancini GBJ, Noreau L, Patrick D, Borisoff JF. Spinal cord injury and cardiovascular disease: a national health study on risk and mechanisms. 6th National Spinal Cord Injury Conference 2014, Toronto, Ontario. Oct 3-4, 2014. Journal of Spinal Cord Medicine [Poster and Oral Presentation] Top Abstract Award.   
50. Currie KD, West CR, Hubli M, Gee CM, and Krassioukov AV. Peak exercise heart rates and sympathetic function: a comparison between athletes and non-athletes with spinal cord injury. Abstract published in Spinal Cord Injury Rehabilitation 2014; 20(S1): 17-18. American Spinal Injury Association (ASIA) 2014 Annual Meeting, San Antonio, Texas, May 14-17, 2014. Oral Presentation.   
51. Currie KD, Hubli M, Gee CM, West CR, and Krassioukov AV. Sex-specific differences in cardiovascular parameters in spinal cord injured individuals. North American Artery Fourth Annual Meeting, Chicago, Illinois, USA, September 5-6 2014. Poster presentation.   
52. Currie KD, Cotie LM, Hubli M, West CR, Assinck P, MacDonald MJ, and Krassioukov AV. Preservation of brachial artery endothelial function in Paralympic athletes. 2014 ICORD Trainee Research Symposium, Vancouver, BC, Canada. June 3-4 2014. Best presentation, 2nd place.   
53. Martin Ginis KA, Tomasone JR, Welsford M, Ethans K, Krassioukov A. “ABCs of AD”: Online Training Module Enhances Paramedics’ Knowledge and Social Cognitions Regarding Use of AD Clinical Practice Guidelines. 4th ISCoS and ASIA Joint Scientific Meeting, Montreal, Quebec, May 14-16, 2015.   
2015   
54. Round AM, Walden K, Noonan VK, Krassioukov AV. An Evaluation of the International Standards to Document Remaining Autonomic Function after Spinal Cord Injury (ISAFSCI): Input from the International SCI Community. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
55. Zheng MMZ, Phillips AA, Krassioukov AV. Impaired endothelial function in rat femoral artery after spinal cord injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. W.L. McLeod Award for best poster by a trainee at the Masters or undergrad level, 1st place.   
56. Frias B, Krassioukov A. “Fast and Slow”: bowel dysfunction in spinal cord injured animals. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
57. Currie KD, Krassioukov AV. A Walking Disaster: A Case of Motor-Incomplete Spinal Cord Injury with Severe Orthostatic Hypotension. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Best poster by Postdoc, 3rd place.   
58. Joo M, Krassioukov AV. From mouth to anus: obstacles in bowel function after spinal cord injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Best poster by Postdoc, 2nd place.   
59. McCracken LA, West CR, Currie KD, Hubli M, Krassioukov AV. Impaired Hemodynamic Responses to Cold Pressor Test in Athletes with High Paraplegia. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
60. Li GM, Currie KD, Hubli M, Gee CM, Krassioukov AV. Factors Influencing Augmentation Index in Individuals with Spinal Cord Injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015.   
61. Phillips AA, Matin N, Frias B, Zheng A, Jia M, West CR, Dorrance A, Laher I, Galea L, Krassioukov AV. Impaired Cerebrovascular Health in Experimental Spinal Cord Injury: The Role of Autonomic Dysreflexia. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. Gordon Hiebert Prize for best poster by Postdoc, 1st place.   
62. Squair JW, West CR, Assinck P, Liu J, Krassioukov AV. A Clinically Relevant Rodent Contusion Model to Investigate Cardiovascular Dysfunction Following Spinal Cord Injury. 2015 ICORD Annual Research Meeting. Vancouver, BC, Canada. March 3-4, 2015. ICORD Award for best poster by a staff member, 3rd place.   
63. Squair JW, Reeybe R, Vorobeychik V, West CR, Krassioukov AV. Assessment of Autonomic Dysfunction in Multiple Sclerosis with and without Spinal Cord Involvement. GF Strong Research Round. Vancouver, BC, Canada. March 25, 2015.   
64. Zbogr D, Eng JJ, Noble JW, Miller WC, Krassioukov AV, Verrier MC. Cardiovascular Stress During Inpatient Spinal Cord Injury Physical and Occupational Therapy. American Congress Of Rehabilitation Medicine (ACRM). Dallas, TX, USA. October 25-30, 2015.   
65. Zheng MMZ, Phillips AA, Laher I, Krassioukov AV. Impaired endothelial function in rat femoral artery after spinal cord injury. The Institute for Heart and Lung Health’s FEST 2015 Heart & Lung Health Scientific Symposium. Vancouver, BC, Canada. Mar 26-27, 2015. Best poster (one of six awards) in the categories of Heart/Lung/Others (top two posters awarded for each category).   
66. Phillips AA, Matin N, Frias B, Zheng MMZ, Galea LA, Dorrance AM, Krassioukov AV. The role of autonomic dysreflexia in cerebrovascular health and cognition after spinal cord injury. GF Strong Rehabilitation Centre Annual Research Day. Vancouver, BC, Canada. April 22, 2015. The Best Overall Podium Presentation and Best Postdoctoral Fellow Podium Presentation.   
67. Currie KD, Krassioukov AV. A walking disaster: a case of motor-incomplete spinal cord injury with severe orthostatic hypotension. GF Strong Rehabilitation Centre Annual Research Day, April 22, 2015, Vancouver. The Best Post Doctoral Fellow Poster.   
68. Klassen TD, Eng JJ, Bayley M, Benavente O, Bennett J, Fraser J, Hill M, Krassioukov A, Metzler M, Piitz M, Reimer E, Rowe S, Yao J, Dukelow S. Implementing An Extra Hour of Intensive, Task-Specific, Physical Therapy Daily for Individuals Post-Stroke During Inpatient Rehabilitation: Feasibility Data from the DOSE Study. 2015 Canadian Stroke Congress. Toronto, Ontario. Sep. 17-19, 2015.   
69. Fougere R, Currie K, Stothers L, Nigro M, Rapaport D, and Krassioukov A. Effect of OnabotulinumtoxinA treatment for neurogenic detrusor over activity on the prevention of autonomic dysreflexia following spinal cord injury. The Journal of Urology 2015; 193(4S): e37.   
70. Currie KD, West CR, and Krassioukov AV. Enhanced diastolic mechanics prevents diastolic dysfunction in Paralympians with tetraplegia. Applied Physiology, Nutrition, and Metabolism 2015; 40(9 S1): S15.   
71. Hubli M, Currie KD, West CR, Gee CM, and Krassioukov AV. Arterial stiffness after spinal cord injury: athletes versus non-athletes. Topics in Spinal Cord Injury Rehabilitation 2014; 20(S1): 17.   
72. West CR, Crawford MA, Poormasjedi-Meibod MS, Currie KD, Yuen VG, McNeill JH, and Krassioukov AV. A novel mechanistic insight into cardiac dysfunction after spinal cord injury. Topics in Spinal Cord Injury Rehabilitation 2014; 20(S1): 20.   
  
2016   
73. Zheng MM, Phillips AA, Golbidi S, Laher I, and Krassioukov A. Above and Below: Impaired Endothelial Funciton in Rat Femoral Artery after Spinal Cord Injury is Reversed with Passive Exercies. ASIA 2016 Annual ScientifcMeeting, Philadelphia, PA, USA. April 14-16 2016.   
74. Popok D. Characterizing the Severity of Autonomic Cardiovascular Dysfuction in SCI Patients Using a Novel 24-hour Ambulatory Blood Pressure Monitoring Software. ASIA 2016 Annual ScientifcMeeting, Philadelphia, PA, USA. April 14-16 2016.   
75. Holmgren T, Hocaloski S, Hamilton L, Hellsing I, Elliott, S, Hultling C, and Krassioukov A. Impact of Spinal Cord Injury on the ability to breastfeed. ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.   
76. Phillips A, Squair J, Currie K, Tzeng SC, Ainslie PN; Chan F, Krassioukov A. 2015 ParaPan American Games: Does Physical Activity Improve Cerebrovascular Function after High-Level Spinal Cord Injury? ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.   
77. Jia M, Phillips A, Yung A, Kozlowski P, and Krassiuokov A. Cerebrovascular Endothelial Function is Impaired after Experimental Spinal Cord Injury. ASIA 2016 Annual Scientific Meeting. Philadelphia, PA. April 14-16 2016.

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**The continued evolution of ISNCSCI – an interactive update**

Thursday, May 03, 2018 03:45 PM - 05:15 PM

***Ruediger Rupp, Dr.-Ing.***  
Heidelberg University Hospital - Spinal Cord Injury Center

**CV:**  
14.05.1969 born in Mannheim   
1988 Abitur   
1990 Intermediate diploma in electrical engineering, Technical University of Karlsruhe, Germany   
1994 Diploma in electrical engineering, Technical University of Karlsruhe, Germany   
1994-1996 Research assistant at the Institute for Biocybernetics and Biomedical Engineering (Head: Prof. Dr. G. Vossius), Technical University of Karlsruhe, Germany   
2008 Ph.D in electrical engineering (Dr.-Ing.), Topic: “Motor rehabilitation of individuals with spinal cord injury by electrical stimulation – an integrative concept for the control of therapy and functional restoration”, Technical University of Karlsruhe, Germany   
1996-2009 Head of the Research Department of the Orthopedic University Hospital II (Head: Prof. Dr. H.J. Gerner), Heidelberg, Germany   
since 2009 Head of Experimental Neurorehabilitation, Heidelberg University Hospital – Spinal Cord Injury Center (Head: Prof. Dr. N. Weidner), Heidelberg, Germany   
  
Research expertise   
Spinal cord injury, rehabilitation engineering, neuroprosthetics, functional and therapeutic elektrical stimulation, man-machine interfaces, locomotion therapy and robotics, motion analysis, clinical and neurophysiological assessments   
Key indices Google Scholar from 28.09.2017:   
citations: 3.895; h-index: 27; i10-index: 53   
  
Awards   
2005 Innovation award for promotion of medical technology of the German Federal Ministry of Education and Research (BMBF)   
2008 Innovation award of the German Foundation Spinal Cord Injury (DSQ)   
2008 Konrad-Biesalski award of the German Society for Orthopedics and orthopedic Surgery (DGOOC)   
2010 Poster award of the German Society for Neurorehabilitation (DGNR)   
2013 Best platform presentation of the International Spinal Cord Society (ISCoS)   
2015 Friedrich-Wilhelm-Meinecke Award of the German-speaking Medical Spinal Cord Injury Society (DMGP)   
  
Society memberships   
Foundation member of the International Functional Electrical Stimulation Society (IFESS)   
German Society for Biomedical Engineering (DGBMT) in the VDE   
IEEE   
German Society of Orthopedics and Orthopedic Surgery (DGOOC)   
International Spinal Cord Society (ISCoS)   
Scientific Board of the German-speaking Medical Spinal Cord Injury Society (DMGP)   
Board of Directors of the German Spinal Cord Injury Foundation (DSQ)   
American Spinal Injury Association (ASIA), Chair of the International Standards Committee   
  
Reviewer activities   
Organisations Deutsche Forschungsgemeinschaft (DFG)   
German Federal Ministry of Education and Research (BMBF)   
Alexander von Humboldt-Foundation (AvHS)   
Dutch Technology Foundation (STW)   
Swiss National Science Foundation (SNSF)   
German Academic Exchange Service (DAAD)   
International Spinal Research Trust (ISRT)   
  
Scientific Journals   
Medical Engineering and Physics (Editorial Board)   
Spinal Cord   
Orthopädietechnik (Scientific Board)   
Automatisierungstechnik, Spinal Cord ,Journal of Spinal Cord Medicine, Journal of Neural Engineering, Journal of Neuro-rehabilitation and Neural Repair, Neuromodulation, Biomedizinische Technik, Der Orthopäde, Experimental Brain Research, Clinical Neurophysiology, Journal of Robotics, PLoS ONE, Frontiers of Neural Circuits, Restorative Neurology and Neuroscience, Engineering and Physics in Medicine, IEEE Trans. on Neural Systems & Rehab. Eng., IEEE Transactions on Biomedical Engineering, IEEE Journal of Biomedical and Health Informatics, Restorative Neurology and Neuroscience, Physiological Measurement, Medical & Biological Engineering & Computing, Lancet Neurology   
  
Publications (last 5 years)   
2013   
1. Schuld C., Wiese J., Franz S., Putz C., Stierle I., Smoor I., Weidner N., EMSCI study group, Rupp R.: Effect of formal training in scaling, scoring and classification of the International Standards for Neurological Classification of Spinal Cord Injury, Spinal Cord 51(4), 282-288, 2013   
2. Kamradt T., Rasch C., Böttinger M., Mürle B., Hensel C., Fürstenberg H., Weidner N., Rupp R., Hug A.: Spinal cord injury: Association with axonal peripheral neuropathy in severely paralyzed limbs, Eur J Neurol. 20(5), :843-848, 2013   
3. Kreilinger A., Hiebel H., Ofner P., Rohm M., Rupp R., Müller-Putz G.R.: Brain-Computer Interfaces als assistierende Technologie und in der Rehabilitation nach Schlaganfall, Orthopädietechnik 6, 1-7, 2013   
4. Rohm M., Schneiders M., Müller C., Kreilinger A., Kaiser V., Müller-Putz G.R., Rupp R.: Hybrid brain-computer interfaces and hybrid neuroprostheses for restoration of upper limb functions in individuals with high-level spinal cord injury, Artificial Intelligence in Medicine 59, 133-142, 2013   
5. Kübler A., Mattia D., Rupp R., Tangermann M.: Facing the challenge: Bringing brain-computer interfaces to end-users, Artificial Intelligence in Medicine 59, 55-60, 2013   
6. Kreilinger A., Rohm M., Kaiser V., Leeb R., Rupp R., Müller-Putz G.R.: Neuroprosthesis Control via Noninvasive Brain-Computer Interface, IEEE Intelligent Systems 28 (5), 40-43, 2013   
2014   
7. Tanadini L.G., Steeves J.D., Hothorn T., Abel R., Maier D., Schubert M., Weidner N., Rupp R., Curt A.: Identifying Homogeneous Subgroups in Neurological Disorders: Unbiased Recursive Partitioning in Cervical Complete Spinal Cord Injury, Neurorehabil Neural Repair 28(6), 507-515, 2014   
8. Meyer A.: Alles im Griff, Geist & Gehirn 4/2014, 64-68, 2014   
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60. Rupp R.: Mensch-Maschine Schnittstellen, Festveranstaltung der Verleihung des Forschungsförderpreises der Deutschen Stiftung Querschnittlähmung, Heidelberg, 31.03.2017   
61. Rupp R., Schuld C., Weidner N., Koller R., Schubert M., Curt A.: The European Multicenter Study about Spinal Cord Injury – It’s all about networking !, iCord Symposium, Vancouver, Kanada, 06.04.-07.04.2017   
62. Rupp R., Rohm M., Huesing J., Lehmann M., Weidner N., Schleebusch T., Castelar C., Walter M., Habier A., Leonhaeuser D., Kowollik M., Leistner N., Grosse J., Kirschner-Hermanns R.: UroWatch – proof-of-concept of the feasibility of electrical impedance tomography (EIT) for noninvasive continuous bladder volume measurement in individuals with SCI, 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
63. Rupp R., Schuld C., EMSCI study group, Burns S., Walden K., Rick Hansen Institute: ISNCSCI computer algorithms, 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
64. Rupp R., ASIA International Standards Committee: International Standards Committee Update – New and Discussed Changes for the International Standards , 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
65. Rupp R.: Patient Study and MoreGrasp neuroprosthesis, MoreGrasp OT Workshop, 9.5.2017   
66. Rupp R., Hessing B., Schneiders M.: Current Status and next steps of WP3 and WP 7, General Meeting of the MoreGrasp Project, Hamburg, 10.05.-11.05.2017   
67. Rupp R., Schuld C., Langpape A., Koller R., Mayer M., Schubert M., Ackermann C., van de Meent H., Mach O., Maier D., Abel R., Curt A., Weidner N.: Changes in the EMSCI certification and proposed ISNCSCI changes, 17th Annual EMSCI Meeting, Ulm, 17.5.2017   
68. Rupp R., Schneiders M., Hessing B., Kogut A., Weidner N.,di Sciascio C., Luzhnica G., Veas E., Ramsay A., Murray Smith R., Schwarz A., Ofner P., Müller-Putz G.R.: Denken, um zu (be-)greifen – Evaluierung der intuitiven Brain-Computer Interface gesteuerten sensiblen und motorischen Greifneuroprothese des europäischen MoreGrasp-Projekts, 30. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie, Ulm, 18.05.-20.05.2017   
69. Rupp R.: Laudatio für den Ludwig Guttmann Preisträger der DMGP 2017, 30. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie (DMGP), Ulm, 18.05.-20.05.2017   
70. Rupp R., Schneiders M., Hessing B., Murray-Smith R., Ramsay A., Luzhnica G., Veas E., Schwarz A., Pereira J., Ofner P., Pinegger A., Müller-Putz G.: MoreGrasp – BCI-controlled sensory and motor grasp neuroprosthesis for individuals with high spinal cord injury, Joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, 11.06.-15.06.2017   
71. Rupp R.: Wofür baucht die motorische Rehabilitation technische Hilfen, Update Neurorehabilitation, Schmieder Klinik, Allensbach, 15.07.2017   
72. Rupp R., Schneiders M., Hessing B., Jersch P., Kogut A., Bertram B., Ramsay A., Murray-Smith R., Müller-Putz G.: The EEG-controlled MoreGrasp grasp neuroprosthesis for individuals with high spinal cord injury – multipad electrodes for screening and closed-loop grasp pattern control, 21st Annual Meeting of the International Funtional Electrical Stimulation Society (IFESS), London, United Kingdom, 17.07.-20.07.2017   
  
Project grants (last 5 years)   
„European Multicenter Study about Spinal Cord Injury“ (2001 – today)   
Role: Co-PI   
Sponsors: International Foundation for Research in Paraplegia (IFP), Zuerich, Switzerland   
Wings for Life (WfL), Salzburg, Austria   
German foundation of paraplegia (DSQ)   
  
„TOBI – Tools for Brain-Computer Interaction“ (2008 – 2013)   
Role: WP leader   
Sponsor: European Commission (EC), FP7-224631   
  
„UroWatch – Development and clinical evaluation of a 3-D bladder volume estimation device on the basis of impedance measurements“ (2012 – 2015)   
Role: Co-PI   
Sponsor: German Federal Ministry for Research and Education (BMBF), 01EZ1128B   
  
„TELMYOS – A telemetric myoelectric ear muscle activity recording system for control of assistive devices” (2012 – 2015)   
Sponsor: German Federal Ministry for Research and Education (BMBF), 01EZ1122B   
  
„MoreGait – Development of a training device for a physiological locomotion training at home“ (2012 – 2015)   
Role: Co-PI   
Sponsor: German Federal Ministry for economy and energy (BMWi), KF2906701NT1   
  
„RehaGait – Development of a mobile feedback-assisted therapy system for rehabilitation of gait abnormalities“ (2013 – 2016)   
Role: Co-PI   
Sponsor: German Federal Ministry for economy and energy (BMWi), KF2906702KJ2   
  
“MoreGrasp - Restoration of upper limb function in individuals with high spinal cord injury by multimodal neuroprostheses for interaction in daily activities” (2015 – 2018)   
Role: 2x WP-leader   
Sponsor: European Comission (EC), FP8-643955   
  
“SCI-walker - a novel mobile, user-compliant, motorized body weight support device for safe overground locomotion training” (2015 – 2016)   
Role: PI   
Sponsor: Promobilia Stiftung, Stockholm, Schweden   
  
„Innovation Cluster– INTAKT“ (2016 – 2021)   
Role: Co-PI   
Sponsor: German Federal Ministry for Research and Education(BMBF), FKZ: 16SV7639

***Steven Kirshblum, MD***  
Kessler Institute for Rehabilitation

**CV:**  
A. Personal Statement   
The main areas of focus have been in spinal cord related studies as well as education and training. I have been involved in translational research that can be used to improve the medical care of persons with SCI. I have had the opportunity of collaborating in multiple projects aimed to enhance medical and functional status of persons with SCI.   
  
B. Positions and Honors   
  
Positions and Employment (Since 2011)   
1994-present Director of Spinal Cord Injury Services, Kessler Institute for Rehabilitation (KIR)   
1996-present SCI Fellowship Program Director, Rutgers New Jersey Medical School (Rutgers NJMS, formerly University of Medicine and Dentistry of New Jersey-New Jersey Medical School [UMDNJ-NJMS])   
1999-present Co-Director of Northern New Jersey Spinal Cord Injury System   
1999-present Consultant in PM&R, St Barnabas Medical Center   
2006-present Professor, Department of Physical Medicine and Rehabilitation, Rutgers NJMS   
2006-2016 Medical Director, Kessler Institute for Rehabilitation, West Orange Facility   
2017-present Senior Medical Officer. Kessler Institute for Rehabilitation, West Orange Facility   
2012-present Chief Academic Officer, Rehabilitation Division of Select Medical   
2017-present Chair. Department of Physical Medicine and Rehabilitation. Rutgers NJ Medical School   
  
Other Experience (Since 2011)   
1995-present Editorial Board, Journal of Spinal Cord Medicine   
2002, 2011 Editor, Spinal Cord Medicine. 1st Edition 2002. 2nd Edition 2011. 3rd edition in press.   
2010-15 Chair, International Standards Committee, American Spinal Injury Association (ASIA)   
2010-present Executive Cte for International Standards and Data Set Committees, International Spinal Cord Society   
2011-13 American Paraplegia Society – President   
2011-2015 Academy of Spinal Cord Injury Professionals (ASCIP) - President   
2011- present Scientific Review Board Member, Craig H. Neilsen Foundation   
2014-15 SCI Medicine Milestone Development Committee for ACGME   
2015-17 Chair of Education, CNS Council, American Association of Physical Medicine and Rehabilitation (Served as Chair-Elect 2013-15, Vice-Chair 2011-13)   
2010-15; 2015-21 Board of Appeals Panel for American Board of PM&R   
2017-19 ASIA Board of Directors   
  
Honors   
1998 Francis Black Humanitarian Award in Healthcare   
1998-2017 Top Doctors in New Jersey (New Jersey Magazine), Top Doctors in New York (New York Magazine), Best Doctors in America   
1992;‘01,’02 & ‘03 Teaching Award, Department of Physical Medicine and Rehabilitation (PM&R). NJMS   
2001 A. Estin Comarr Memorial Award. American Paraplegia Society.   
2001 Henry H. Kessler Award for Medical Excellence   
2004 Young Academician Award. Association of Academic Physiatrists.   
2004 Best Paper Award. American Spinal Injury Association.   
2004 World Congress of Rehabilitation International Award (Oslo, Norway)   
2004 Top poster presentation at American Paraplegia Society   
2005 Cerebral Palsy of New Jersey's Elizabeth Boggs Award   
2005 Tribute to SCI Award. The Spinal Cord Injury Project   
2005 Standing Tall Award. Alan T. Brown Foundation to Cure Paralysis   
2010 Mentorship Award. Department of PM&R. NJMS.   
2010 Best Paper Award. Second Place. American Spinal Injury Association   
2012, 2014 Jayanthi Lecture, Academy of Spinal Cord Injury Professionals   
2013 Visiting Professor, Case Western Reserve University/MetroHealth Rehabilitation Institute of Ohio   
2015 Ted Cole MD Day Speaker, University of Michigan, Department of PM&R   
2016 Heiner Sell Lecture, ASIA Conference 2016. Philadelphia PA.   
2016 Top Poster Award (1st Place) ASIA Conference. Philadelphia PA.   
2016 Best Research Paper Award (1st Place). ASIA Annual Conference, Philadelphia, PA.   
2016 Leadership Award. Academy of Spinal Cord Medicine. Nashville. TN   
2017 AAP. Distinguished Academician Award to be presented. Las Vegas. NV.   
  
Certification:   
a. Board of Physical Medicine and Rehabilitation - (#3562). (May, 1991)   
B. Spinal Cord Injury Medicine (# 52) (1998; Recertification 2008)   
Clinical License: New Jersey. 25MA05496100   
  
C. Contribution to Science   
1. Influence on classification of SCI as well as predicting outcome. Based upon much of this work I have had the pleasure of serving as the Chair of the International Standards Committee for the American Spinal Injury Association (ASIA). I published >25 articles in this area, some of which are below.   
a. Kirshblum S, Botticello A, Lammertse D, et al. (2011) The Impact of Sacral Sensory Sparing in Motor Complete Spinal Cord Injury. Arch Phys Med Rehabil. 92:376- 383.   
b. Kirshblum SC, Burns S, Biering-Sorensen F, et al. (2011) International standards for neurological classification of spinal cord injury (Revised 2011) J Spinal Cord Med. 34 (6):535-546.   
c. Kirshblum S, Biering-Sorensen F, et al. (2014) International Standards for Neurological Classification of Spinal Cord Injury: Cases with Classification Challenges. J Spinal Cord Med. 37(2):120-127.   
d. Kirshblum S, Waring W 3rd. (2014) Updates for the International Standards for Neurological Classification of Spinal Cord Injury. Phys Med Rehabil Clin N Am. 25(3):505-517.   
e. Schuld C, Franz S, Kirshblum S, Weidner N, Rupp R. (2016) Motor levels in high cervical spinal cord injuries - Implications for the International Standards for Neurological Classification of Spinal Cord Injury. J Spinal Cord Med. 39(5):504-12   
f. Marino R, Schmidt-Read M, Kirshblum SC, Dyson-Hudson TA, et al. (2016). Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in neurological classification of persons with spinal cord injury. Arch Phys Med Rehabil. 2016; 97(10):1642-6.   
g. Kirshblum S, Botticello A, Byrne R, Dyson-Hudson T, Marino R, Lammertse D. Patterns of Sacral Sparing Components on Neurological Recovery in Newly Injured Persons with Traumatic Spinal Cord Injury. Arch Phys Med Rehabil. 2016; 97(10):1647-55.   
  
  
2. Involved in the advancement of education for professionals in SCI by writing over 40 chapters and editing textbooks in the field of SCI Medicine, as well as a book for children of families with SCI - available for free.   
a. Spinal Cord Medicine. Kirshblum SC, Campagnolo D, DeLisa JE. Lippincott/Williams and Wilkins. Philadelphia. 2002.   
b. I Will Teach You Everything You Need to Know. Kirshblum S. Paralysis Resource Center. 2010. (A children’s book on SCI).   
c. Spinal Cord Medicine. Second Edition. Kirshblum SC, Campagnolo D. Lippincott/Williams and Wilkins. Philadelphia. 2011.   
  
Chapters since 2013 (Total = 45):   
d. Kirshblum S, Brooks M, Nieves J, Yonclas P. Nonoperative management of acute spinal cord injury. In: Critical Care in Spinal Cord Injury. Fehlings MG (Ed.). Future Medicine, London, UK. pp. 78-91 (2013).   
e. Kirshblum S, Nieves J. Clark D. Spinal Cord Injuries. In Cuccurullo S. Physical Medicine and Rehabilitation Board Review. Demos. New York. 3rd edition. 2015.   
f. Kirshblum S, Shea M, McCarthy S. Wheelchairs. In Cuccurullo S. Physical Medicine and Rehabilitation Board Review. Demos. New York. 3rd edition. 2015.   
g. Walker H, Hon, A, Kirshblum S. Spasticity Due to Disease of the Spinal Cord: Pathophysiology, Epidemiology and Treatment. In, Spasticity: Diagnosis and Management. Editor. Brashear A, Elovic E. Demos, New York. 2016. 351-382.   
h. Frost F, Tritle S, Kirshblum S. Spinal Cord Injury Rehabilitation. In Benzel’s Spine Surgery. Steinmitz M, Benzel E editors. Elsevier. Philadelphia, PA. 2016. Pages 1765-1769.   
i. Kirshblum S, Brooks M. Neurological Examination and Classification in Spinal Cord Injury. In Practical Psychology in Medical Rehabilitation. Budd M, Hough S, Wegener ST, Stiers W. Springer, Switzerland. 2016. Pages 33-41.   
j. Kirshblum S, Donovan J. Medical Complications of SCI: Bone, Metabolic, Pressure Ulcers and Sexuality and Fertility. In Neurological Aspects of Spinal Cord Injury. Weidner N, Rupp R, Tansey K. Springer. Germany. 2017. Pages 463-502.   
D. Additional Information: Research Support and/or Scholastic Performance   
Peer Reviewed Articles since 2014. (Total=143)   
1. Kirshblum S, Biering-Sorensen F, et al. (2014) International Standards for Neurological Classification of Spinal Cord Injury: Cases with Classification Challenges. J Spinal Cord Med. 37(2):120-127.   
2. McClure IA, Nieves JD, Kirshblum SC. (2014) A survey of protective cushion usage in individuals with spinal cord injury while traveling in a motor vehicle and on a commercial airliner. J Spinal Cord Med. 37(6): 729-733. PMID: 24621043   
3. Kirshblum S, Waring W 3rd. (2014) Updates for the International Standards for Neurological Classification of Spinal Cord Injury. Phys Med Rehabil Clin N Am. Aug;25(3):505-517.   
4. Emmons RR, Cirnigliaro CM, Kirshblum SC, Bauman W. (2014) The Relationship between the Postprandial Lipemic Response and Lipid Composition in Persons with Spinal Cord Injury The Journal of Spinal Cord Medicine. J Spinal Cord Med. 37(6): 765-773. PMID: 24961488.   
5. Fyffe D, Deutsch A, Botticello A, Kirshblum S, Ottenbacher K. (2014) Racial and Ethnic Disparities in Functioning at Discharge and Follow-up among Patients with Motor Complete Spinal Cord Injury. Arch Phys Med Rehabil. 95 (11): 2140-2151. PMID: 25093999.   
6. Wu X, Liu J, Tanadini LG, Lammertse DP, Blight AR, Kramer JLK, Scivoletto G, Jones L, Kirshblum S, et al. Challenges for defining minimal clinically important difference (MCID) after spinal cord injury. Spinal Cord. 2015 Feb;53(2):84-91.   
7. Bauman WA, La Fountaine MF, Cirnigliaro CM, Kirshblum SC, Spungen AM. (2015) Lean tissue mass and energy expenditure are retained in hypogonadal men with spinal cord injury after discontinuation of testosterone replacement therapy. J Spinal Cord Med. 38: 38-47.   
8. Tulsky, DS, Kisala, PA, Victorson, D, Tate, DG, Heinemann, AW, Charlifue, S, Kirshblum, SC, et. al. (2015) Overview of the Spinal Cord Injury – Quality of Life (SCI-QOL) Measurement System. Journal of Spinal Cord Medicine. 38(3):257-269.   
9. Kisala PA, Tulsky DS, Kirshblum SC, Choi S. (2015) Development and Psychometric Characteristics of the SCI-QOL Pressure Ulcers Scale and Short Form. Journal of Spinal Cord Medicine. 38(3):303-14. doi: 10.1179/2045772315Y   
10. Tulsky DS, Kisala PA, Tate DG, Spungen AM, Kirshblum SC. (2015) Development and psychometric characteristics of the SCI-QOL Bladder Management Difficulties and Bowel Management Difficulties item banks and short forms and the SCI-QOL Bladder Complications scale. J Spinal Cord Med. 38(3):288-302. doi: 10.1179/2045772315Y   
11. Bauman WA, Cirnigliaro CM, La Fountaine MF, Martinez L, Kirshblum SC, Spungen AM. (2015) Zoledronic acid administration failed to prevent bone loss at the knee in persons with acute spinal cord injury: an observational cohort study. J Bone Miner Metab. 33(4):410-21.PMID: 25158630. doi: 10.1007/s00774-014-0602-x.   
12. Wecht JM, Cirnigliaro CM, Azarelo F, Bauman WA, Kirshblum SC. (2015) Orthostatic responses to anticholinesterase inhibition in spinal cord injury. Clin Auton Res. Jun;25(3):179-87.   
13. La Fountaine MF, Cirnigliaro CM, Emmons-Hindelong RR, Kirshblum SC, Galea M, Spungen AM, Bauman WA. (2015) Lipoprotein Heterogeneity in Persons with Spinal Cord Injury: A Model of Prolonged Sitting and Restricted Physical Activity. Lipids Health Dis. 2015 Jul 28;14:81. doi: 10.1186/s12944-015-0084-4. PMID: 26215870   
14. Cirnigliaro CM, LaFountaine MF, Dengel DR., Bosch TA, Emmons RR., Kirshblum, SC, et al. (2015) Visceral adiposity in persons with chronic spinal cord injury determined by dual energy X-Ray absorptiometry. Obesity. 2015 Sep;23(9):1811-7. doi: 10.1002/oby.21194.   
15. La Fountaine MF, Cirnigliaro CM, Kirshblum SC, Bauman WA. Test-Retest Reliability of Manual Muscle Testing with a Hand-held Myometer in Men with Spinal Cord Injury. Gazetta Medica Italiana- Archivio per le Scienze Mediche, 2015, 174(10): 449-457.   
16. Kirshblum S, Botticello A, Benaquista DeSipio G, Et al. (2016) Breaking the news: a pilot study on patient perspectives of discussing prognosis after traumatic spinal cord injury. J Spin Cord Med. 2016;39(2):155-6. PMID: 25897890.   
17. Walden K, Belanger L, Biering-Sørensen F, Burns S, Echeverria E, Kirshblum S, et al. (2015) Development and Validation of a Computerized Algorithm for International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI). Spinal Cord. Spinal Cord. 2016 Mar;54(3):197-203. doi: 10.1038/sc.2015.137.   
18. Handrakis JP, Rosado-Rivera D, Singh K, Swonger K, Azarelo F, Lombard AT, Spungen AM, Kirshblum SC, Bauman WA. (2016) Self-reported effects of cold temperature exposure in persons with tetraplegia. J Spinal Cord Med. Mar 8:1-7.   
19. Emmanuel A, Kumar G, Christensen P, Mealing S, Størling ZM, Andersen F, Kirshblum S. Long-Term Cost-Effectiveness of Transanal Irrigation in Patients with Neurogenic Bowel Dysfunction. PLoS One. 2016 Aug 24;11(8):e0159394. doi: 10.1371/journal.pone.0159394. PMID: 27557052   
20. Schuld C, Franz S, Brüggemann K, Heutehaus L, Weidner N, Kirshblum SC, et al. (2016) International standards for neurological classification of spinal cord injury: impact of the revised worksheet (revision 02/13) on classification performance. J Spinal Cord Med. Sep;39(5):504-12. doi: 10.1080/10790268.2016.1180831. PMID: 27301061   
21. Franz S, Kirshblum SC, Weidner N, Rupp R, Schuld C; EMSCI study group. (2016) Motor levels in high cervical spinal cord injuries: Implications for the International Standards for Neurological Classification of Spinal Cord Injury. J Spinal Cord Med. 39(5):513-516. PMID: 26913366.   
22. Fyffe DC, Kalpakjian C, Slavin MD, Kisala P, Ni P, Kirshblum S, et al. (2016) Clinical Interpretation of the Spinal Cord Injury Functional Index (SCI-FI). J Spinal Cord Med. 39(5):527-34. doi: 10.1080/10790268.2015.1133483. PMID: 26781769   
23. Kirshblum S, Botticello A, Byrne R, Dyson-Hudson T, Marino R, Lammertse D. (2016) Patterns of Sacral Sparing Components on Neurological Recovery in Newly Injured Persons with Traumatic Spinal Cord Injury. Arch Phys Med Rehabil. Oct;97(10):1647-55.   
24. Bauman W, La Fountaine M, Cirnigliaro C, Kirshblum S, Spungen A. (2016) Provocative Stimulation of the Hypothalamic-Pituitary-Testicular Axis in Men with Spinal Cord Injury. Spinal Cord. Nov;54(11):961-966. doi: 10.1038/sc.2016.50.   
25. Kirshblum S, Botticello A, Benaquista DeSipio G, et al. (2016) Breaking the news: a pilot study on patient perspectives of discussing prognosis after traumatic spinal cord injury. J Spin Cord Med. 2016;39(2):155-6. PMID: 25897890.   
26. Marino R, Schmidt-Read M, Kirshblum SC, Dyson-Hudson TA, et al. (2016). Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in neurological classification of persons with spinal cord injury. Arch Phys Med Rehabil. 97(10):1642-6.   
27. Cirnigliaro CM, Myslinski MJ, La Fountaine MF, Kirshblum SC, et al. Bone loss at the distal femur and proximal tibia in persons with spinal cord injury: imaging approaches, risk of fracture, and potential treatment options. Osteoporos Int. 2016 Dec 5. [Epub ahead of print] Review.   
28. Bauman W, La Fountaine M, Cirnigliaro C, Kirshblum S, Spungen A. (2017)Testicular Responses to hCG Stimulation at Varying Doses in Men with Spinal Cord Injury. Spinal Cord. (21 February 2017) | doi:10.1038/sc.2017.8.   
29. La Fountaine MF, Cirnigliaro CM, Kirshblum SC, McKenna C, Bauman WA. Effect of functional sympathetic nervous system impairment of the liver and abdominal visceral adipose tissue on circulating triglyceride-rich lipoproteins. PLoS ONE, 2017. 12(3): e0173934.   
30. Boninger ML, Field-Fote EC, Kirshblum SC, et al. Research progress from the SCI Model Systems (SCIMS): an interactive discussion on future directions. J Spinal Cord Medicine. 2017. (April 19, 2017) DOI: 10.1080/10790268.2017.1314879.   
31. Handrakis JP, Rosado-Rivera D, Singh K, Swonger K, Azarelo F, Lombard AT, Spungen AM, Kirshblum SC, Bauman WA. (2017) Self-reported effects of cold temperature exposure in persons with tetraplegia. J Spinal Cord Med. 40: 389-395.   
32. Bauman WA, La Fountaine MF, Cirnigliaro CM, Kirshblum SC, Spungen AM. (2017) Testicular Responses to hCG Stimulation at Varying Doses in Men with Spinal Cord Injury. Spinal Cord, 2017. 55(7): 659-663.   
33. Solinsky R, Kirshblum SC, Burns SP. (2017) Exploring detailed characteristics of autonomic dysreflexia. J Spinal Cord Medicine. Published online 8/7/17. DOI:10.1080/10790268.2017.1360434.   
34. Dukes EM, Kirshblum S, Aimetti AA, et al. (2017) Relationship of American Spinal Injury Association Impairment Scale Grade to Post-injury Hospitalization and Costs in Thoracic Spinal Cord Injury. Neurosurgery. Published online 8/9/17. DOI.10.1093/neuro/nyx425.   
35. Bauman WA, La Fountaine MF, Cirnigliaro CM, Kirshblum SC, Spungen AM. (2017) Administration of Increasing Doses of Gonadotropin Releasing Hormone in Men with Spinal Cord Injury to Investigate Dysfunction of the Hypothalamic-Pituitary-Gonadal Axis. Spinal Cord.   
36. Reed R, Mehra M, Kirshblum S, Maier D, et al. Spinal cord ability ruler: an interval scale to measure volitional performance after spinal cord injury. Spinal Cord. 55(8):730-738.   
37. Solinsky R, Kirshblum SC. (2017). Challenging questions regarding the International Standards. J Spi Cord Med. Pages 1-7 | Published online: 8/18/17. DOI. 10.1080/10790268.2017.1362929   
  
Research Support (Active)   
90SI5026 (Dyson-Hudson and Kirshblum Co-PI’s) 9/30/16 – 9/29/2021 2.4 CM (20%) NIDILRR $366,342 (Annual Directs) $2,298,795 (Total Award) “Northern New Jersey Spinal Cord Injury Model System (SCIMS)   
  
367686 (Kisala, PI) 4/30/16 – 4/30/18 (% as needed) Craig H. Neilsen Foundation $22,499 (Annual Directs)   
Sub-award from University of Delaware $49,498 (Total Award) “Clinical Adaptation of the SCI-QOL Psychosocial Measures”. Role: Collaborator   
  
90RE5021 (Foulds, PI) 9/30/15 – 9/29/20 .12 CM (1%) NIDILRR via Sub-award from NJ Institute of Technology $995,821 (Total Subaward) “Exoskeleton and Spinal Cord Stimulation for SCI”. Role: Co-I   
  
1R21NS095052-01 (Jiang, PI) 7/1/15 – 6/30/17 .24 CM (2%) NIH $137,468 (Annual Directs) $410,409 (Total Award) “Longitudinal Assessment of Spinal Cord Structural Plasticity using DTI in SCI Patients”. Role: Co-I   
  
360924 (O’Neill, PI) 12/31/15 – 12/31/18 .12 CM (1%) Craig H. Neilsen Foundation $99,295 (Annual Directs) $297,891 (Total Award). Vocational services in SCI. Role: Collaborator   
  
W81XWH-15-1-0614 (Bloom, PI) 9/30/15 – 9/29/19 .12 CM (1%) USAMRAA/CDMRP/DoD via   
Subaward from Feinstein Institute for Medical Research $39,589 (Annual Directs) $237,195 (Total Subaward)   
“Biomarkers of Spontaneous Recovery from Traumatic Spinal Cord Injury”. Role: Co-I   
  
W81XWH-14-2-0170 (Spungen, PI) 9/30/14 – 9/29/18 .12 CM (1%) USAMRAA/CDMRP/DoD via Subaward from $68,403 (Annual Directs). Bronx Veterans Medical Research Foundation $353,872 (Total Subward). “A Randomized, Crossover Clinical Trial of Exoskeletal-Assisted Walking to Improve Mobility, Bowel Function and Cardio-Metabolic Profiles in Persons with SCI”. Role: Co-I   
  
W81XWH-14-2-0190 (Forrest, PI) 9/30/14 – 9/29/17 .12 CM (1%) USAMRAA/CDMRP/DoD.   
$487,804 (Annual Directs) $1,834,554 (Total Award) “Testosterone Combined with Electrical Stimulation and Standing: Effect on Muscle and Bone”. Role: Co-I   
  
CSCR13IRG013 (Forrest, PI) 6/17/13 – 6/30/18 .12 CM (1%) New Jersey Commission on Spinal Cord Injury Research. $179,993 (Annual Directs) $574,976 (Total Award)   
“Non-Ambulatory SCI Walk Using a Robotic Exoskeleton: Effect on Bone and Muscle”. Role: Co-I   
  
90DP0025 (Bonninger, PI) 10/1/12 – 9/30/17 .12 CM (1%) NIDILRR via Subaward from University of Pittsburgh $111,271 (Annual Directs) $851,222 (Total Subaward)   
‘Collaboration on Mobility Training (COMIT)”. Role: Co-I   
  
07-3063-SCR-E-0 Forrest (Co-PI) 01/01/7 – 11/15/17 .12 CM (1%) HHS and Christopher Reeve Foundation via Sub-award from University of Louisville $Varies due to enrollment NeuroRecovery Network. Role: Co-I.

***Keith Tansey, MD, PhD***  
University of Mississippi Medical Center

**CV:**  
B. Positions and Honors   
Positions   
1998-2002 Clinical Instructor/Research Fellow, Department of Neurology,   
Washington University School of Medicine, St. Louis, MO   
University of California Los Angeles School of Medicine, Los Angeles, CA   
2002-2008 Assistant Professor, Departments of Neurology (Neurorehabilitation Section Head),   
Neurosurgery and Physical Medicine and Rehabilitation; Director, Spinal Cord Injury Program,   
University of Texas Southwestern Medical Center, Dallas, TX   
2008-2013 Assistant Professor, Departments of Neurology and Physiology,   
Emory University School of Medicine, Atlanta, GA   
2008-2013 Director, Spinal Cord Injury Research and Restorative Neurology Programs   
Crawford Research Institute, Shepherd Center, Atlanta, GA   
2008-2016 Attending Physician, Spinal Cord Injury Clinic,   
Atlanta VA Medical Center, Atlanta, GA   
2013-2016 Associate Professor, Departments of Neurology and Physiology,   
Emory University School of Medicine, Atlanta, GA   
2016-present Senior Scientist, Center for Neuroscience and Neurological Recovery and NeuroRobotics Lab,   
Methodist Rehabilitation Center   
2016-present Professor, Departments of Neurosurgery and Neurobiology and Anatomical Sciences, Neurotrauma Center, Neuro Institute, University of Mississippi Medical Center   
2016-present Physician, Spinal Cord Injury Medicine and Research Services,   
G.V. (Sonny) Montgomery Veterans Administration Medical Center   
  
Honors/Appointments   
1993 Texas Scholar Award, Kent Waldrop National Paralysis Foundation   
1994 Neurology Prize, University of Texas Southwestern Medical School at Dallas   
2000 - 2001 Consortium Associate, Christopher Reeve Paralysis Foundation   
2004, 05, 08 Outstanding Teaching Award, 1st Year Med School Class, U. Texas Southwestern Med. Ctr.   
2005 “Best Paper” Award, American Spinal Injury Association   
2006 Outstanding Teaching Award, Neurology Clinical Clerkship, U. Texas Southwestern Med. Ctr.   
2007 Favorite Medical School Course Award, Univ. of Texas Southwestern Medical School at Dallas   
2007 Socrates Award, University of Texas Southwestern Medical School at Dallas   
2007 - 2011 Secretarial Appointee to the Scientific Merit Review Board, Department of Veterans Affairs   
2008 “Best Poster” Award, Georgia Stem Cell Initiative Symposium   
2009 - 2012 Vice President, Board of Directors, International Society for Restorative Neurology (ISRN)   
2009 - now Board of Directors, American Spinal Injury Association (ASIA)   
2010 - 2016 Board of Directors, American Society for Neurorehabilitation (ASNR)   
2010 - now Spinal Cord Injury Section Editor, Journal Watch, American Society for Neurorehabilitation   
2011 - 2013 Editorial Board, Topics in Spinal Cord Injury Rehabilitation   
2011 - 2013 Planning Group, Advanced Robotic Therapy Integrated Centers (ARTIC)   
2011 - 2016 Unified Council for Neurologic Subspecialties (UCNS) Neurorehabilitation Exam Committee   
2012 - 2013 President, Board of Directors, International Society for Restorative Neurology (ISRN)   
2012 - now Scientific Advisory Committee/Challenge Judge/Mentoring Program, Conquer Paralysis Now   
2012 - now Planning Group, Spinal Cord Outcomes Partnership Endeavor (SCOPE)   
2013 Scientific Review Board Reveiwer, Craig Neilsen Foundation   
2013 - 2015 Secretary Treasurer, American Spinal Injury Association   
2013 - now Chair, Spinal Cord Injury Common Data Elements Electrodiagnostics Working Group, NINDS   
2013 - 2016 Chair, Membership Committee, American Society for Neurorehabilitation   
2014 - now Scientific Committee, International Spinal Cord Society (ISCoS)   
2014 - now Scientific Advisory Board, United 2 Fight Paralysis   
2014 - 2016 Data Safety Monitoring Board, Neuralstem Inc.   
2014 - now International SCI Data Set Committee, International Spinal Cord Society (ISCoS)   
2015 - 2016 Trans NIH Rehabilitation Research Coordinating Committee, NIH   
2015 - 2017 President Elect, American Spinal Injury Association (ASIA)   
2015 “Celebration of Faculty Excellence” Award, Emory University School of Medicine   
2017 - now Data Safety Monitoring Board, WISE trial (Walking Intervention for SCI with Exoskeletons)   
2017 - now Medical Monitor, Neuralstem Inc.   
2017 “President’s Research Initiative” Award, American Association of Neuromuscular and   
Electrodiagnostic Medicine   
2017 - 2019 President, American Spinal Injury Association   
  
Board Certifications   
2000 Neurology, American Board of Psychiatry and Neurology   
2005 Spinal Cord Injury Medicine, American Board of Physical Medicine and Rehabilitation   
2012 Neural Repair and Rehabilitation, United Council for Neurological Subspecialties   
  
C. Contribution to Science - full Tansey citation list at:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/1Var-TbygrikF/bibliograpahy/49250056/public/?sort=date&direction=descending   
  
1. Neural plasticity in locomotor recovery in human spinal cord injury - For this work we have combined the technologies of electrophysiology, imaging and robotics. We have used fMRI to demonstrate that locomotor training, which improves the recovery of over-ground stepping, also generates supraspinal plasticity, especially in the cerebellum. We are now using electrophysiology to investigate the nature of spinal circuit plasticity in our subjects by studying muscle activation patterns and spinal reflex function during stepping. We have also begun to study how we can augment motor output during stepping in SCI subjects using tonic transcutaneous spinal cord stimulation (tSCS). That work is showing that the neurophysiology and mechanics of stepping and of spasticity can be positively impacted with tSCS in a stimulation frequency dependent manner.   
1. Winchester, P., McColl, R., Querry, R., Foreman, N., Mosby, J., Tansey, K., and Williamson, J., Changes in Supraspinal Activation Patterns following Robotic Locomotor Therapy in Subjects with Motor Incomplete Spinal Cord Injury. Neurorehabilitation and Neural Repair 19:313-324, 2005   
2. Querry, R., Pacheco, F., Annaswamy, T., Goetz, L., Winchester, P. and Tansey, K.E., Synchronous stimulation and monitoring of the H-reflex during robotic body weight ambulation in subjects with spinal cord injury, J. Rehab. Res. & Dev. 45:175-186, 2008   
3. Minsassian, K., Hofstoetter, U., Tansey, K., and Mayr, W., Neuromodulation of lower limb motor control in restorative neurology, Clin Neuro and Neurosurg 114:489-497, 2012   
4. Hofstoetter, U., McKay, B., Tansey, K., Mayr, W., Kern, H., and Minassian, K., Modification of spasticity   
by transcutaneous spinal cord stimulation in incomplete spinal cord injured individuals, J Spinal Cord   
Med 37:202-211, 2014   
5. Minassian, K., Hofstoetter, U.S., Danner, S.M., Mayr, W., Bruce, J.A., McKay, W.B., and Tansey, K.E.,   
Spinal rhythm generation by step-induced feedback and transcutaneous posterior root stimulation in   
complete spinal cord injured individuals, Neurorehabilitation and Neural Repair 30:233-243, 2016   
  
2. Neural plasticity in basic science models of spinal cord injury - In a variety of basic science models, we have explored neural plasticity in the form of astrocyte biology, gene expression, motoneuron properties, synaptic plasticity, and axon regeneration. We are currently working in a model neural circuit, the nociceptive intersegmental cutaneus trunci muscle (CTM) reflex. Not only can we study nociceptive biology, activation of the afferents in this reflex generates cardiovascular responses via the autonomic nervous system. We are finding that the pain afferents of this reflex can generate “hypereflexia” and “dysautonomia” after SCI and this physiological plasticity is paralleled by anatomical plasticity in these pain afferents’ central projections.   
1. Faulkner, J.R., Hermann, J.E., Woo, M.J., Tansey, K.E., Doan, N.B., and Sofroniew, M.V., Reactive astrocytes protect tissue and preserve function after spinal cord injury. J. Neurosci. 24:2143-2155, 2004.   
2. Petruska, J.C., Ichiyama, R.M., Crown, E.D., Tansey, K.E., Roy, R.R., Edgerton, V.R., and Mendell, L.M., Changes in Motoneuron Properties and Synaptic Inputs Related to Step Training Following Spinal Cord Transection in Rats J. Neuroscience 27:4460-71, 2007   
3. Tansey, K.E., Seifert, J.L., Botterman, B.R., Delgado, M.R., and Romero, M.I., Peripheral Nerve Repair through Multi-luminal Biosynthetic Implants, Ann Biomed Eng 2011   
4. Lee, H.J, White, J.M., Chung, J., and Tansey, K.E., Peripheral and central anatomical organization of   
cutaneous afferent subtypes in a rat nociceptive intersegmental spinal reflex, J Comp Neurol 15:2216-   
2234, 2017   
  
3. Advances in clinical research and care in spinal cord injury - Through work in clinical networks, societal committees and personal efforts, I have contributed to advancing the standard of care and of clinical research in the field of spinal cord injury medicine.   
1. Tansey, K.E., Profiling Motor Control in Spinal Cord Injury: Moving towards Individualized Therapy and   
Evidence-based Care Progression, J Spinal Cord Med 35:305-309, 2012   
2. Kirshblum, C.S., Biering-Sorensen, F., Betz, R., Burns, S., Donovan, W., Graves, D.E., Johansen, M.,   
Jones, L., Mulcahey, M.J., Rodriguez, G.M., Schmidt-Read, M., Steeves, J.D., Tansey, K., and Waring,   
W., International Standards for Neurological Classification of Spinal Cord Injury: Cases with classification   
challenges, J Spinal Cord Med 37:120-127, 2014   
3. Biering-Sorenson, F., Alai, S., Anderson, K., Charlifue, S., Chen, Y., DeVivo, M., Flanders, A., Jones, L.,   
Kleitman, N., Lans, A., Noonan, V.K., Odenkirchen, J., Steeves, J., Tansey, K., Widerstrom-Noga, and   
Jakeman, L.B., Common Data Elements for Spinal Cord Injury Clinical Research: A National Institutes   
for Neurological Disorders and Stroke Project, Spinal Cord 53:265-277, 2015   
4. Marino, R.J., Schmidt-Read, M., Kirshblum, S.C., Dyson-Hudson, T.A., Tansey, K.E., Morse, L.R., and   
Graves, D.E., Reliability and validity of S3 pressure sensation as an alternative to deep anal pressure in   
neurological classification of persons with spinal cord injury, Archives of PM&R 97:1642-1646, 2016   
5. Frontera WR, Bean JF, Damiano D, Ehrlich-Jones L, Fried-Oken M, Jette A, Jung R, Lieber RL, Malec   
JF, Mueller MJ, Ottenbacher KJ, Tansey KE, Thompson A., Rehabilitation Research at the National   
Institutes of Health Neurorehabil and Neural Repai, 31:304-314, 2017   
  
D. Research Support   
Ongoing Research Support   
  
Completed Research Support (selected)   
Project #: 297076 PI: Malu Tansey Funding Agency: Neilsen Foundation   
Grant Title: “XPro1595 to inhibit soluble TNF and modulate inflammation in spinal cord injury”   
Grant Dates: 7/1/14-2/28/17 (NCE) Role: Co-Investigator   
  
Project #: 1IO1RX000417-01A1 PI: Keith Tansey Funding Agency: VA RR&D   
Grant Title: “Human Spinal Circuit Plasticity with Locomotor Training in SCI”   
Grant Dates: 10/1/12 – 9/31/16 (NCE) Role: Principal Investigator   
  
Project #: 284874 PI: Keith Tansey Funding Agency: Neilsen Foundation   
Grant Title: “Pain induced dysautonomia in SCI: neural plasticity and intervention”   
Grant Dates: 2/1/14-1/31/16 Role: Principle Investigator   
  
Project #: H133N110005 PI: K. Tansey/L. Hudson Funding Agency: NIDRR/NIDILLR   
Grant Title: “Southeastern Regional SCIMS Program at Shepherd Center”   
Grant Dates: 10/1/11 – 9/30/16 Role: Co-Investigator   
  
Project #: SC090469 PI: Keith Tansey Funding Agency: DoD   
Grant Title: “The Neurophysiology of Autonomic Dysfunction in SCI: Plasticity in the Input and Output Neurons”   
Grant Dates: 10/1/10-1/26/14 Role: Principal Investigator   
  
Project #: 2-R01-HD039676-06A2 PI: Kevin McCully Funding Agency: NIH   
Grant Title: “Skeletal Muscle Plasticity, Fitness and Health after Spinal Cord Injury: Improving Glucose Tolerance”   
Grant Dates: 5/1/08-4/30/13 Role: Collaborator

***Stephen Burns, MD***  
Spinal Cord Injury Service, Va Puget Sound Health Care System

**CV:**  
A. Personal Statement   
Since 1996, my research efforts and clinical care have been devoted to the medical consequences of spinal cord injury (SCI) and the measurement and classification of SCI-related neurological deficits. For more than 20 years, I have practiced as a staff physician with the Veterans Affairs (VA) SCI Service at VA Puget Sound, where I now serve as the Director of the SCI Service. My service provide care to more than 740 Veterans with chronic SCI, who receive care in inpatient and outpatient settings. During residency training, I worked closely with Dr. John Ditunno, who led development of the International Standard for Neurological Classification of SCI. I have been a member of the American Spinal Injury Association’s International Standards Committee since 2001.   
  
B. Positions and Honors   
  
Positions and Employment   
1996- Staff Physician, SCI Service, VA Puget Sound Health Care System, Seattle, WA   
1996-2000 Acting Assistant Professor, Dept. of Rehabilitation Medicine, University of Washington, Seattle, WA   
2000-2006 Assistant Professor, Dept. of Rehabilitation Medicine, University of Washington, Seattle, WA   
2006- Associate Professor, Dept. of Rehabilitation Medicine, University of Washington,   
Seattle, WA   
2006- Medical Co-Director, Northwest Regional SCI System of Care, University of Washington, Seattle WA   
2007-2011 Chair, Institutional Review Board, VA Puget Sound Health Care System, Seattle,   
WA   
2012- Director, SCI Service, VA Puget Sound Health Care System, Seattle, WA   
2017 Leadership Award; The Academy of Spinal Cord Professionals   
  
Other Experience and Professional Memberships   
1997- Diplomate, American Board of Physical Medicine and Rehabilitation   
1998- Member, American Paraplegia Society/ASCIP   
1999- Member, American Spinal Injury Association   
1999- Diplomate, Spinal Cord Injury Medicine   
2000-2010 Diplomate, American Board of Electrodiagnostic Medicine   
2002- Director, Advanced SCI Medicine Fellowship, VA Puget Sound Health   
Care System   
2007-2010 Chair, Neurological Standards Committee, American Spinal Injury Association   
2009-2016 Senior Reviewer, SCI Medicine Board Examination, American Board of PM&R   
2010-2015 Member, Translational Research Advisory Committee, Rick Hansen Institute   
2014- Member, National SCI Statistical Center External Advisory Board   
2015- Steering Committee Member, Consortium for Spinal Cord Medicine   
  
C. Contributions to Science   
Bibliography on My NCBI:   
  
1. Neurological Assessment and Classification of Spinal Cord Injury   
Neurological assessment of SCI is currently performed using the International Standards for Neurological Classification of SCI. Alternative examination techniques and scoring of the current examination potentially allow more precise measurement and classifications, which are potentially of use as outcomes in clinical trials. I have examined testing methodology pertaining to use of hand-held dynamometry in persons with SCI.   
• Burns SP, Breuninger A, Kaplan C, Marin H. Hand-held dynamometry in persons with tetraplegia: comparison of make versus break testing techniques. Am J Phys Med Rehabil 2005;84:22-29. PMID: 15632485.   
• Marino RJ, Burns S, Grave DE, Leiby BE, Kirshblum S, Lammertse D. Upper and lower extremity motor recovery after traumatic cervical SCI: an update from the National Spinal Cord Injury Database. Arch Phys Med Rehabil 2011 Mar;92(3):369-75.   
• Walden K, Belanger LM, Biering-Sorensen F, Burns SP, Echeverria E, et al. Development and validation of a computerized algorithm for International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI). Spinal Cord 2016; 54(3):197-203. PMID: 26323348.   
• Sunshine JE, Dagal A, Burns SP, Newman SF, Nair BG, Bransford RJ, Zhang F, Sharar SR. Methylprednisolone therapy in acute traumatic spinal cord injury: analysis of a regional Spinal Cord Model Systems database. Anesthesia and Analgesia 2017 124(4):1200-1205. PMID: 28319547.   
  
2. Lower Limb Fractures and Chronic Spinal Cord Injury   
Osteoporosis and lower limb fractures are common consequences of SCI. These fractures have the potential to cause significant morbidity and mortality in this patient population, and a non-surgical treatment approach has been advocated for decades. In my clinical work treating Veterans with SCI, I acquired considerable experience working with an interdisciplinary team to optimize healing outcomes, prevent complications such as pressure ulcerations, and discharge patients to the least restrictive environment while awaiting fracture management. I have conducted collaborative research examining morbidity, mortality, risk factors, and outcomes of these fractures.   
• Carbone LD, Chin AS, Burns SP, Svircev JN, Hoenig H, Heggeness M, Weaver F. Mortality following lower extremity fractures in men with spinal cord injuries. JBMR 2014 Feb;29(2):432-9. PMID: 23873733.   
• Carbone LD, Chin AS, Burns SP, Svircev JN, Hoenig H, Heggeness M, Weaver F. Thiazide Use is Associated with Reduced Risk for Incident Lower Extremity Fractures in Men with Spinal Cord Injury. Arch Phys Med Rehabil 2014;95(6):1015-20. PMID   
• Bethel M, Bailey L, Weaver F, Le B, Burns S, Svircev J, Heggeness M, Carbone L. Surgical Compared with Nonsurgical Management of Fractures in Male Veterans with Chronic Spinal Cord Injury. Spinal Cord 2015 [in press; accepted 12/3/14]. PMID 25622728.   
• Bethel M, Weaver F, Bailey L, Miskevics S, Svircev J, Burns S, Hoenig H, Lyles K, Carbone L. Risk factors for osteoporotic fractures in persons with spinal cord injuries and disorders. Osteoporos Int 2016 [epub May 26]. PMID: 27230522.   
• Abderhalden L, Weaver FM, Bethel M, Burns SP, Svircev JN, Hoenig H, Lyles K, Miskevic S, Carbone LD. Dual energy x-ray absorptiometry and fracture prediction in patients with spinal cord injuries and disorders. Osteoporos Int 2016;27(10):3011-21. PMID: 27230522.   
  
3. Respiratory Consequences of Spinal Cord Injury   
Respiratory disorders are an important source of morbidity and are the leading cause of death in acute and chronic SCI. Tetraplegia increases the risk of obstructive sleep apnea. The expiratory dysfunction that occurs with tetraplegia and in some patients with paraplegia reduces the effectiveness of coughing, leading to difficulty clearing bronchial secretions and increasing the risk of pneumonia. Research I have conducted has identified some risk factors for obstructive sleep apnea and challenges to treating it in this patient population. Additional work has demonstrated optimal management strategies for treating and preventing pneumonia.   
• Burns SP, Kapur V, Yin KS, Buhrer R. Factors associated with sleep apnea in men with spinal cord injury: a population-based case-control study. Spinal Cord 2001;39(1):15-22. PubMed PMID: 11224009.   
• Burns SP, Yavari Rad M, Bryant S, Kapur V. Long-term treatment of sleep apnea in persons with spinal cord injury. Am J Phys Med Rehabil 2005;84(8):20-6. PMID: 16034232.   
• Burns SP, Weaver FM, Parada JP, Evans CT, Chang H, Hampton RY, Kapur V. Management of community-acquired pneumonia in persons with spinal cord injury. Spinal Cord 2004;42(8):450-458. PMID: 15037861.   
• Crew JD, Svircev JN, Burns SP. Mechanical insufflation-exsufflation device prescription for outpatients with tetraplegia. J Spinal Cord Med 2010;33(2):128-34. PMID: 20486531.   
  
4. Infectious Disease Complications following Spinal Cord Injury   
Infectious diseases conditions such as pneumonia and sepsis occur with increased incidence in persons with SCI. This patient population has unique risk factors for infectious disease conditions, such as neurogenic bladder dysfunction, impaired cough function, and pressure ulcer susceptibility. Frequent treatment with antibiotics and interaction with the health care system increase the risk for multi-drug resistant organisms. With collaborators, I have assisted with design, analysis, and reporting for multiple investigations, making use of my clinical experience as physician who provides care for persons with chronic SCI in inpatient and outpatient settings.   
• Evans CT, Burns SP, Chin A, Weaver FM, Hershow RC. Predictors and outcomes of antibiotic adequacy for bloodstream infections in veterans with spinal cord injury. Arch Phys Med Rehabil 2009;90:1364-70. PMID: 19651270.   
• Skelton F, Hoffman J, Reyes M, Burns SP. Examining health care utilization in the first year after spinal cord injury. J Spinal Cord Med 2015;38(6):690-5. PMID: 25299152.   
• Fitzpatrick MA, Suda KJ, Safdar N, Burns SP, Jones MM, Poggensee L, Ramanathan S, Evans CT. Changes in bacterial epidemiology and antibiotic resistance among Veterans with spinal cord injury/disorder over the past 9 years. J Spinal Cord Med 2017 [accepted 12/9/16; published online 2/15/17]. PMID: 28198662.   
• Kale I, Fitzpatrick MA, Suda KJ, Burns SP, Poggensee L, Ramanthan S, Sabzwari R, Evans CT. Risk factors for community-associated multidrug resistant Pseudomonas aeruginosa in Veterans with spinal cord injury and disorder: a retrospective cohort study. Spinal Cord 2017 [in press; accepted 12/30/16]. PMID: 28169292   
• Ramanathan S, Suda KJ, Fitzpatrick M, Poggensee L, LaVela SL, Burns SP, Evans CT. Multi-drug resistant Acinetobacter: Risk factors and Outcomes in Veterans with Spinal Cord Injuries and Disorders. Am J Infect Control 2017 [in press].   
  
  
  
D. Research Support   
Ongoing Research Support   
  
SC150092 (Carbone) 10/1/2016-9/30/2018   
CDMRP   
Management of osteoporotic fractures in Veterans with SCI. This project will determine outcomes of osteoporotic lower limb fractures in persons with chronic SCI.   
Role on project: consultant.   
  
Completed Research Support (last 3 years)   
  
1 I21 RX001583-01A1 (Evans) 10/1/2014-9/30/2016   
VA RR&D   
Burden and Outcomes of resistant gram negative organisms in Veterans with SCI/D.   
This project identifies the burden of multi-drug resistant GNR’s causing infections in Veterans with SCI/D by infection type and by setting of onset, and assesses the impact of these infections on outcomes.   
Role: consultant.   
  
  
H133N110009 (Bombardier) 10/1/2011-9/30/2016   
NIDRR   
Model Spinal Cord Injury Care System grant for Northwest Regional Spinal Cord Injury System   
This model system project includes subject enrollment and data collection for national SCI database, as well as a trial of care models to improve outpatient management of common secondary conditions associated with SCI.   
Role: Medical co-director.

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**Ventilator Weaning Multi-institution Best Practice Symposium**

Thursday, May 03, 2018 03:45 PM - 04:30 PM

***Stephen McKenna, MD***  
Santa Clara Valley Medical Center; Stanford University

**CV:**  
STEPHEN L. McKENNA   
Department of PM&R, Room 1E004c   
751 S Bascom Ave   
San Jose, CA 95128   
EDUCATION   
6/2002-5/2005 Internal Medicine Resident, Santa Clara Valley Medical Center, San Jose CA   
9/1997-5/2002 Stanford University, School of Medicine, Stanford, CA – MD   
6/1988-5/1994 University of California, Berkeley, CA – BA   
Applied Mathematics with Department Honors   
6/1988-5/1994 University of California Berkeley, CA – BA   
Statistics (Epidemiology, Honors Thesis)   
  
LICENSES/BOARD CERTIFICATION   
2/04-present California State Medical License   
2005-2025 Internal Medicine – American Board of Internal Medicine Certification   
2008-2018   
2015-2018 Neurocritical Care – United Council for Neurologic Subspecialties   
Certified Clinical Research Professional, Society of Clinical Research Associates   
  
RESEARCH EXPERIENCE   
  
2015-present Phase 1/21 Clinical Assessment of Human Embryonic Stem Cell-Derived Oligodendrocyte Progenitor Cells (AST-OPC1) Dose Escalation in Patients with Subacute Cervical SCI - Principal Investigator (SCVMC)   
  
The primary outcome measure for this trial is to identify possible adverse events within 1 year (365 days) that are related to AST-OPC1 injection. Secondary outcome measures include evaluate of neurological function as measured by upper extremity motor scores and motor level on International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI) examinations at 30, 60, 90, 180, and 365 days after injection of AST-OPC1.   
  
2015-present   
Non-Invasive Continuous Hemodynamic Monitoring in Individuals with Cervical Spinal Cord Injury during Acute Rehabilitation – Sub-Investigator   
  
This study will evaluate a device prototype to continuously record hemodynamic data on the wearer including HR, BP, pulse oximetry, HCO3 and CO. At the end of the week of physiological monitoring, study investigators will extract and record manually collected vital signs and time of recording (including BP, HR, pulse oximetry, and temperature) The goal will be to evaluate the ability of the device to predict symptomic and sublinical autonomic dysreflexia in relationship to clean intermittent catheterization and bowel programs. Each patient will be given time sheets to record symptoms of AD (headache, diaphoresis, flushing, malaise, anxiety, goose bumps) and OH (lightheadedness, dizziness, nausea, profuse sweating) as well as chart review from nursing notes that may not have been noted by the patient. We will document all events that may affect blood pressure including medication administration data, therapy sessions, and acute infections.   
  
2012-2016 Study to Evaluate the Efficacy, Safety, and Pharmacokinetics of SUN13837 Injection in Adult Subjects With Acute Spinal Cord Injury – Co-Investigator   
  
The purpose of this research study is to gather scientific information about the effectiveness of the study drug, SUN13837 Injection, when compared with the placebo (inactive substance) in subjects with acute spinal cord injury.   
  
2009-2011 Phase 1 Clinical Assessment of Human Embryonic Stem Cell-Derived Oligodendrocyte Progenitor Cells (AST-OPC1) in Patients with Subacute Thoracic SCI – Principal Investigator (SCVMC)   
  
The purpose of this study is to determine the effect of human embryonic stem cell derived oligodendrocyte progenitor cells on functional recovery after acute spinal cord injury. Embryonic stem cell-derived neural cells have been used by researchers to treat nervous system disorders in animal models. In the case of spinal cord injuries, neural cells derived from animal embryonic stem cells and injected into the spinal cord injury site produced significant recovery of the animal's ability to move and bear weight.   
  
2010-2013 SCI With Brain Injury: Bedside To Bench Modeling For Developing Treatment And Rehabilitation Strategies - Co-Investigator   
  
This DoD funded project proposes the development of an animal model of dual SCI+TBI diagnosis to provide a new tool for studying the biological mechanisms involved and open new directions for therapeutic development. The research from this project may be used to guide the creation of an evidence based guideline for the management of combined SCI and TBI.   
  
2008-2016 Predictors of dysphagia after spinal cord injury – Neurocritical Care Consultant   
  
The purpose of this study is to determine the incidence of and risk factors for dysphagia after SCI. Dysphagia is a serious problem in itself, but can also lead to aspiration pneumonia, malnutrition, dehydration, weight loss, and airway obstruction. The secondary objectives are to assess the accuracy of bedside swallow evaluation compared with videofluoroscopic swallowing evaluation (VFSS) and to assess the time course of recovery of dysphagia in this patient population.   
  
2008-2009 NeuRx DPS RA/4 Diaphragm Pacing Stimulation System, initial review of the Humanitarian Use Device – Principal Investigator   
  
Humanitarian device exemption for use of diaphragmatic pacing device in patient with spinal cord injury. The goal of this project is to liberate patients with high spinal cord injury from ventilator support using a pacemaker which would provide electrical stimuli to drive the paralyzed diaphragm.   
  
2007-2009 Multimodal study of plasticity after spinal cord injury – Co-Principle Investigator   
  
The purpose of this study is to use functional magnetic resonance imaging, transcranial magnetic stimulation and somatosensory evoked potentials to investigate changes that occur in the brain as a result of injury to the spinal cord. Brain mappings in patients with spinal cord injury will be compared with those in healthy volunteers. Changes in the motor cortex will be compared with changes in the sensory cortex.   
  
2006-2008 Impact of mean arterial blood pressure during the first seven days post SCI – Principal Investigator   
  
The purpose of this study was a retrospective review of exposure to hypotension and to determine correlation with neurologic outcomes after Spinal Cord Injury. The results demonstrated a detrimental impact in motor score for exposure to mean arterial blood pressure below 80 mmHg.   
  
  
WORK EXPERIENCE   
While at Santa Clara Valley Medical Center   
  
2017-Present Epic: SCI Steering Committee, Invited member of international team of clinician researchers tasked with establishing decision rights for the implementation of an universal data set for the collection of FAIR (Findable, Accessible, Interoperable, Re-usable) data for both clinical and research acquired through “natural practice” patterns during the treatment of individuals with Spinal Cord Injury.   
  
2017- Present Stem Cell Research in Science and Politics Consortium, Invited member of consortium tasked with building bridges across inter-professional practice to forge new partnerships between scientists (Jan Nolta, Tood McDevitt, Hans Keirstead, Michael Lane), Industry (Asterias Biotheraputics, Gaivita Biomedical), NGOs (California Institute for Regenerative Medicine, Texans for Cures, DiDonato Paralysis Foundation) and patient advocates (Bob Klein, Roman Reed, Rich Lahara) with the vision of advancing discoveries of cures for spinal cord injury.   
  
2017- Present: Institutional Review Board Member, The Institutional Review Board (“IRB”) established for Santa Clara Valley Medical Center (“SCVMC”) and its clinics is a duly constituted IRB operating under the name “Research and Human Subjects Review Committee". The primary function of the Research Committee is to ensure the protection of the rights and welfare of human subjects. It is necessary for others who are independent of the research to share the responsibility for determining the standards for ethical conduct of research involving human subjects.   
  
2017-Present: Invited Reviewer for Spinal Cord - Nature   
Responsible for providing expert input and reviewing original manuscripts submitted to Spinal Cord - Nature, as well as recommending that manuscripts be moved to sister journal Spinal Cord Series and Cases.   
  
2012-2016: Chief Medical Officer for Silicon Valley Institute for Regenerative Medicine.   
On Sept 25, 2012 the Santa Clara Valley County Board of Supervisors voted unanimously to form a 501.c3 non-profit corporation – the Silicon Valley Institute for Regenerative Medicine (SVIRM) at Santa Clara Valley Medical Center. "The purpose of the corporation is primarily to direct and monitor research and treatment related to regenerative medicine; however, the corporation may also collect grants and/or donations, and take all appropriate actions that are deemed appropriate to further the goals of regenerative medicine." Through a Memorandum of Understanding (MOU) the Institute was started with a staff loan consisting of one half-time Medical Doctor, one Administrative Assistant, one Health Care Program Analyst, one Clinical Research Program Director, and one Nurse Manager and an initial capital infusion for operations of $250,000. In addition SVIRM obtained philanthropic contributions for a matching $250,000. In 2016, the 501.c3 function was incorporated into the research infrastructure of the County of Santa Clara for the purpose of providing extended (15 year) follow-up for patients enrolled in stem cell based clinical trials for acute spinal cord injury.   
  
2012-Present Stanford Advanced Spinal Cord Injury Medicine Fellowship Site Director.   
The Rehabilitation Trauma Center is a core teaching facility for Stanford residents and fellows in training. Stanford Physical Medicine and Rehabilitation residents learn acute care of patients with catastrophic neurological injuries through consultation in the Rehabilitation Trauma Center. The Stanford/VA Advanced Fellowship Program in Advanced Spinal Cord Injury Medicine features the Center as a core training site for the management of acute neurological injury.   
  
2009-Present Stanford Partnership for Spinal Cord Injury and Repair   
SCVMC site director and founding partner for the Stanford Partnership for SCI and Repair (SPSC). The core mission of the SPSC is accelerating the development of novel methods of restoring function after SCI. The SPSC is designed to leverage partnerships with industry leaders, scientists, and nationally recognized clinical care centers such as the Rehabilitation Trauma Center at SCVMC. The Stanford Partnership for Spinal Cord Injury and Repair (SPSC) aims to reduce the costs - personal, social, and financial - of spinal cord injury and dysfunction through a formidable network of collaborations employing breakthrough strategies for repair and restoration of function.   
  
2009-Present Chief of Rehabilitation Trauma Center, Dept of Physical Medicine and Rehabilitation. The Rehabilitation Trauma Center (RTC) is one of the nation’s elite centers for Neurocritical Care of patients after acute spinal cord injury. The RTC specializes in the management of high tetraplegia, traumatic brain injury and other neurological disorders with the goal of freeing patients from ventilator support and controlling autonomics instability in order to maximize patient’s potential for functional recovery.   
  
2006-Present Director of Medical Consultation, Dept of Physical Medicine and Rehabilitation.   
Provide medical consultation service for Acute Spinal Cord Injury as well as Traumatic Brain Injury units. Principle investigator for clinical research projects in the management of acute spinal cord injury. Clinical instructor for Stanford University Physical Medicine and Rehabilitation Residents. As well as Stanford University Fellows in the fields of Geriatrics and Spinal Cord Injury Medicine.   
  
2010-2013 Stanford Clinical Assistant Professor (Affiliated), Department of Medicine, and the Department of Neurosurgery.   
Attending physician supervising housestaff from Valley Medical Center Internal Medicine as well as Stanford University’s Internal Medicine Residency and Neurosurgery Residency programs. Additional responsibilities include supervision of Stanford Medical Students.   
  
2006-2010 Stanford Clinical Instructor (Affiliated), Department of Medicine.   
Attending physician supervising housestaff from both Valley Medical Center Internal Medicine as well as Stanford University Internal Medicine Residency programs. Additional responsibilities include supervision of Stanford Medical Students including acting as temporary Internal Medicine Clerkship Director (May, October 2007).   
  
2005-2006 Chief Resident, Department of Medicine.   
Provided medical consultation service for general and specialty surgical services. Attending physician Medical Intensive Care Unit and Internal Medicine Wards.   
Led daily didactics with residents, interns and/or Stanford Medical School students.   
Managed 71 resident and intern housestaff physicians   
  
2003-2005 Class President for combined House staff programs.   
Elected twice to represent the Internal Medicine, Obstetrics and Gynecology, and Radiology residents.   
While at Stanford University   
  
2001-2002 Teaching Assistant, Continuity of Care Clerkship. Developed curriculum, organized speakers, developed web-based support for clerkship. Stanford University, School of Medicine, CA – Dr. Elizabeth Malcolm (650) 736-1448 (course director) – Can be contacted.   
  
2000-2003 Consultant, World AIDS Foundation:   
• Assisted in authoring original proposal for funding from World AIDS Foundation for evaluation of short course nevirapine in the prevention of Mother-to-Child HIV Transmission in sub-Saharan Africa   
• Developed databases in Access   
• Implemented protocols for rapid HIV testing   
• Standardized procedures between project sites in Zambia and Rwanda   
Emory University, School of Public Health, GA – Dr. Susan Allen   
(404) 727-7883 (principal investigator) – Can be contacted.   
  
1998-1998 Teaching Assistant, Structural Biology 211 – Histology (7 units). Stanford Medical School – Dr. Patricia Cross (650) 723-7361 (course director) – Can be contacted. (Employed one quarter)   
  
1998-2000 Contributing Author, All-Net Pediatrics Intensive Care Textbook. Used Java, HTML, Abode products to author multimedia materials for teaching pediatric intensive care physicians-in-training and in practice. Stanford Medical School – Dr. Joseph DiCarlo (650) 723-5495 (editor-in-chief) – Can be contacted. (Employed during pre-clinical years)   
  
1998-2000 Programmer, Stanford University Medical Media and Information Technology (SUMMIT):   
• Authored “Histology Interactive Tutorial” free standing computer program with over 300 images and 1000 text annotations.   
• Developed computer-based curriculum support for the Stanford Medical School. Including streaming video, searchable electronic presentation of course syllabi, interactive on-line tutorials, cyber-microscopes.   
• Developed computer-based support for Stanford Medical School, Continuing Medical Education On-line.   
• Developed computer-based support for Stanford Medical School, Ambulatory Care Clerkship.   
Stanford University, CA – Jennifer Stringer (650) 723-9688 (supervisor) – Can be contacted. (Employed during pre-clinical years)   
  
While in Sub-Saharan Africa   
  
1996-1997 Consultant regarding rapid HIV testing and same day counseling for Zimbabwe AIDS Prevention Program (ZAPP) and Kara Counseling (Zambian NGO).   
David Katzenstein (650) 725-8304 (Stanford Center for AIDS Research) – Can be contacted. (Contract)   
  
1995-1997   
Project Manager, Project San Francisco:   
• Field manager for U.S. National Institutes of Health HIV research clinic in Lusaka, Zambia and Kigali, Rwanda.   
• Research topic: HIV transmission in heterosexual couples and vertical transmission from mother to child.   
• Managed staff of 60 (counselors, nurses, physicians and ancillary staff) to provide voluntary HIV counseling and testing for over 15,000 individuals during a two-year tenure.   
• Developed HIV voluntary testing and counseling algorithm used in several international AIDS research and counseling centers.   
• With Drs. C. Luo and G.T. Bhat, established Zambian National antenatal HIV counseling and testing protocol.   
Emory University, School of Public Health, GA – Dr. Susan Allen   
(404) 727-7883 (principal investigator) – Can be contacted.   
  
While at University of California, Berkeley   
  
1995-1995 Student Instructor, Student Learning Center (SLC) at UCB. Oversaw all aspects of a 2 unit statistics course, Statistics 98. Cara Stanley (510) 643-8818 (director, SLC) – Can be contacted. (Employed until graduation)   
  
Summer 1993,1994 Teaching Assistant, Summer Bridge at UCB. Introduction to Statistic, Statistics 21 (4 units). Cara Stanley (510) 643-8818 (director, SLC) – Can be contacted. (Employed until graduation)   
  
1994-1995 Senior Tutor, Disabled Student Program (DSP), UCB. Introduction to Physics, Introduction to Chemistry. Deirdre Semoff (510) 642-0518 (learning disabilities specialist) – Can be contacted. (Employed until graduation)   
  
1993-1995 Senior Tutor, Biology Scholars Program (BSP), UCB. Introduction to Biology. John Matsui (510) 643-9768 (director, BSP) – Can be contacted (Employed until graduation)   
  
1988-1995 Individual Tutor, SLC/DSP/BSP, University of California, Berkeley. Graduate epidemiology; upper and lower division mathematics and statistics; introductory biology, chemistry, organic chemistry, and physics. (see references above)   
  
  
  
  
  
HONORS/AWARDS/ACTIVITIES   
  
2005-2009 Ironman Coach, Team-in-Training IronTeam. Swimming coach for Ironman France 2009, Ironman Lake Placid 2008, Vineman Ironman 2007, Ironman Coeur d’Alene 2006, Ironman Canada 2005   
  
2006: Third Place, Male Relay, XXVI Alcatraz Triathlon. Member of three person relay, 13 mile bike portion of third place relay team.   
  
  
2001: Community Partners Medical Scholar, Stanford Medical School. Financial award ($10,000) to conduct research in collaboration with community partner – Dr. Moses Sinkala (Zambian Ministry of Health) and Dr. Etienne Karita (Rwandan National Reference Laboratory) on prevention of Mother-to-Child transmission of HIV in Zambia and Rwanda.   
  
2000-2001: Curriculum Reform Committee, Stanford Medical School. Alternate student representative to curriculum reform committee   
  
1999-Present: Admissions Committee, Stanford Medical School. Student interviewer   
  
1999-2000: Traveling Scholar, Stanford Medical School. Financial award ($10,000) to conduct randomized trial of occlusive dressings vs. silver sulfadiazine in partial thickness pediatric burns. Study conducted in conjunction with the National Children's Hospital, San Jose, Costa Rica   
  
1998-1998: Foreign Language and Area Scholar, Stanford Medical School. Financial award ($3000) to conduct cultural/language studies in Heredia, Costa Rica   
  
1997-1998: Medical Scholar, Stanford Medical School. Financial award ($10,000) to conduct study of evaluation of web-based teaching tools for students and residents.   
  
1995: Departmental Honors, UC. Berkeley – Department of Statistics   
  
1993: UMAP Mathematical Modeling and Application Competition   
UC Berkeley – Department of Mathematics   
  
1992-1992   
Study abroad, UC Berkeley. Togo West Africa, summer immersion program in French and West African Languages with emphasis on field research   
  
1988-1994   
Chancellor’s Scholar, UC Berkeley. Full need support for tuition plus room and board   
  
1993-1995   
Intramural water polo, UC Berkeley. Championship team, Spring 1994   
  
1974-1987   
Competitive swimming, National Ranking 50yd Backstroke 25th in nation; 50yd Freestyle 108th in nation   
  
  
  
PRESENTATIONS   
  
02-24-2007 Trauma Symposium, Memorial Modesto, Modesto CA.   
Lecture Title: Acute Spinal Cord Injury Management   
190 attendees.   
  
04-04-2007 Trauma Grand Rounds, Mercy Hospital, Redding California   
Lecture Title: Acute Respiratory Management of the SCI patient.   
20 attendees.   
  
05-24-2007 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Venous Thromboembolism Prophylaxis in High Risk Patients   
50 attendees.   
  
05-25-2007 EBM Lecture Series, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Venous Thromboembolism Prophylaxis in High Risk Patients   
50 attendees.   
  
07-07-2007 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research   
100 attendees.   
  
07-07-2007 Neurotrauma Symposium, UCSF, San Francisco California   
Lecture Title: Acute Management and Challenges of Spinal Cord Injuries: Respiratory Complications   
200 attendees.   
  
09-20-07 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research   
50 attendees.   
  
01-24-08 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Spinal Cord Injury: Acute Management   
50 attendees.   
  
02-28-08 Spinal Cord Injury Conference, San Jose CA.   
Lecture Title: Acute Respiratory Management of the SCI patient   
200 attendees.   
  
02-28-08 Spinal Cord Injury Conference, San Jose CA.   
Lecture Title: Management of Alcohol Withdrawal   
200 attendees.   
  
02-29-08 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Spinal Cord Injury: Acute Management   
100 attendees.   
  
  
PRESENTATIONS (cont)   
  
05-16-08 Contemporary Forums: Spinal Cord Injury   
Lecture Title: Respiratory Management of the Tetraplegic Patient: Case Studies and Techniques   
100 attendees.   
  
05-17-08 Contemporary Forums: Spinal Cord Injury   
Lecture Title: Melding Rehabilitation into the ICU: Case Scenarios   
400 attendees.   
  
06-21-08 American Spinal Injury Association (ASIA) Annual Conference   
Lecture Title: Impact of Mean Arterial Blood Pressure During the First Seven Days Post SCI   
400 attendees.   
  
06-11-08 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Improving Inpatient Anticoagulation at SCVMC - Prevention and Treatment   
100 attendees.   
  
03-13-09 California Society for Respiratory Care Annual Conference. Tahoe CA.   
Lecture Title: Early Vocalization Strategies in Acute Spinal Cord Injury   
200 attendees.   
  
05-19-09 South Bay Chapter of the Rehabilitation Nurses Association. Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research.   
30 attendees.   
  
05-21-09 State Compensation Insurance Fund (California). Vacaville CA.   
Lecture Title: Advances in Stem Cell Research.   
30 attendees.   
  
06-30-10 Trauma Grand Rounds, Kaiser. Sacramento CA.   
Lecture Title: Spinal Cord Injury: Acute Management.   
50 attendees.   
  
07-15-10 Blue Shield California. Statewide Teleconference   
Lecture Title: Advances in Stem Cell Research.   
200 attendees.   
  
02-24-11 Brain Injury Conference: Santa Clara Valley Medical Center   
Lecture Title: TBI/SCI – Bench to Bedside.   
200 attendees.   
  
11-17-12 Stanford Symposium on Neuroregeneration and Repair   
Lecture Title: Needs Assessment for the Field of Spinal Cord Injury Clinical Trials   
200 attendees.   
  
02-05-13 Acute Considerations in Spinal Cord Injury: Santa Clara Valley Medical Center   
Lecture Title: Respiratory Complications of Acute Spinal Cord Injury   
200 attendees.   
  
11-02-13 Stanford 4th Annual Breakthroughs in Neurological Therapies: Restoring Function to the Nervous System   
Lecture Title: Early introduction of Rehabilitation in the ICU   
200 attendees.   
  
04-06-16 Annual Scientific Metting of the American Spinal Injury Association.   
Lecture Title: Spine Symposium Point-Counterpoint Respiratory Management   
100 attendees.   
  
10-05-16 Stanford Physical Medicine and Rehabilitation Round Rounds   
Lecture Title: Use of Stem Cells in Spinal Cord Injury   
50 attendees.   
  
06-09-17 Stem Cell Research in Science and Politics   
Lecture Title: Field Testing Stem Cell Derived Treatments for Acute Spinal Cord Injury   
50 attendees.   
  
  
  
  
  
  
PUBLICATIONS   
  
Zakrasek EC, Nielson JL, Kosarchuk JJ3, Crew JD, Ferguson AR, McKenna SL   
Pulmonary outcomes following specialized respiratory management for acute cervical spinal cord injury: a retrospective analysis. SPINAL CORD. 2017; Feb 21. PMID: 28220822   
  
Reza, E., Stück, E., Endo, J., Isaac, L., Beattie, M., Ferguson, A. and McKenna, S.   
Dose Response Effect of Exposure to Hypotension on Expected Neurological Recovery in Individuals With Traumatic Spinal Cord Injury. ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION.2016: 97(12), pp.e6-e7. DOI: http://dx.doi.org/10.1016/j.apmr.2016.09.016   
  
T Inoue, A Lin, X Ma, McKenna SL, G Creasey, G Manley, A Ferguson, J Bresnahan, M Beattie. Combined SCI and TBI: Combined SCI and TBI: recovery of forelimb function after unilateral cervical spinal cord injury (SCI) is retarded by contralateral traumatic brain injury (TBI), and ipsilateral TBI balances the effects of SCI on paw placement. Exp Neurol. 2013 Oct; 248:136-47. PMID: 23770071 doi: 10.1016/j.expneurol.2013.06.006. Epub 2013 Jun 13.   
  
K. Velez, S. McKenna. Pulmonary Rehabilitation after Ventilatory Failure. American Academy of Physical Medicine and Rehabilitation Knowledge NOW. Published online December 3, 2013.   
  
Jerosz R, Littlepage M, Creasey G, McKenna SL. Functional Electrical Stimulation in Spinal Coryd Injury Respiratory Care. Topics in Spinal Cord Injury Medicine, Top Spinal Cord Inj Rehabil. 2012 Fall; 18(4):315-21. PMID: 23459661. doi: 10.1310/sci1804-315.   
  
Shah A, Shem K, McKenna SL, Berlly M. Management of Respiratory Failure in Spinal Cord Injury. Spinal Cord Medicine (Hardcover) by Steven, M.D. Kirshblum (Editor), Denise, M.D. Campagnolo (Editor), Joel A. Delisa (Editor) Lippincott Williams & Wilkins; 2nd edition 2011   
  
Crew J, Rathi P, McKenna SL, Garcia J. Re: a descriptive study of vitamin D levels in persons with acute spinal cord injury. PMR. 2010 Sep; 2(9):872. PMID: 20869689. doi: 10.1016/j.pmrj.2010.06.010.   
  
Cohn A, Wright J, McKenna S, Tamara B. The Impact of Mean Arterial Blood Pressure During the First Seven Days Post Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. Volume 15, Number 3 / Winter 2010. DOI: http://dx.doi.org/10.1310/sci1503-96   
  
Cindy Y. Lin, MD, Stephen McKenna, MD, Kazuko L. Shem, MD. Successful Pregnancy and Delivery in a C1 ASIA A Spinal Cord Injured Woman: The Role of Coordinated Care Between PM&R and Obstetrics Services: A Case Report. PM&R . 2010: DOI: http://dx.doi.org/10.1016/j.pmrj.2010.07.461   
  
Minn AY, Schellenberg D, Maxim P, Suh Y, McKenna S, Cox B, Dieterich S, Xing L, Graves E, Goodman KA, Chang D, Koong AC. Pancreatic tumor motion on a single planning 4D-CT does not correlate with intrafraction tumor motion during treatment. Am J Clin Oncol. 2009 Aug; 32(4):364-8.   
  
Stephenson R, Shutes E, McKenna S, Allen S, Brill I, Kancheya N, Zulu I, Sinkala M, Tichacek A, Chomba E. The Impact of Project Closure on HIV Incidence and Mortality in a Cohort of Couples in Lusaka, Zambia. AIDS Care. 2008 Jul; 20(6):683-91. PMID: 18576170   
  
Bakari JP, McKenna S, Myrick A, Mwinga K, Bhat GJ, Allen S. Rapid voluntary testing and counseling for HIV: Acceptability and feasibility in Zambian antenatal care clinics. Ann NY Acad Sci 918:64-76, 2000. PMID: 11131736   
  
Malcolm EJ, McKenna SL, Merrill DE, Davis VM, Jensen RA, Stringer JR, Steinhart R, Robertson P, Wolfe E. A web site as an adjunct to a longitudinal ambulatory clerkship for medical students. The 23rd Annual Meeting of the Society of General Internal Medicine. Boston, MA, 2000.   
  
McKenna SL, Guzman G, Arquedas A, Hernandez A, Young J, Najarian MP, DiCarlo J. Randomized trial of occlusive dressings versus silver sulfadiazine in pediatric partial thickness burns. 17th Annual Stanford Medical Student Research Symposium. Stanford, CA, 2000.   
McKenna SL, Muyinda GK, Roth D, Mwali M, Ng’andu N, Myrick A, Luo C, Priddy FH, Hall VM, von Lieven AA, Sabatino JR, Mark K, Allen SA. Rapid HIV testing and counseling for voluntary testing centers in Africa. AIDS 11(Suppl 1):S103-S110, 1997. PMID: 9376093   
  
G.J. Bhat, MD, DCH, S. McKenna, H. Terunuma, Y. Ahmed, C. Luo, A. von Lieven, M. Luo, Y. Numazaki, S. Allen, and B. Hojer. Antenatal HIV Voluntary Counseling and Testing: A Feasibility Study. Mulungushi International AIDS Conference, Lusaka, Zambia, 1997.   
  
B Chitundu, M Chabala, S McKenna, D Roth, RN, MPH, and A vonLieven, RN. Rapid Testing in a Busy VTC Center in Lusaka Zambia. Mulungushi International AIDS Conference, Lusaka, Zambia, 1997.

***James Crew, MD***  
Santa Clara Valley Medical Center

**CV:**  
BOARD CERTIFICATION   
  
2009 - Present Diplomate, American Board of Physical Medicine and Rehabilitation (ABPMR)   
2011 - Present Neuromuscular Medicine Board Certification   
2009 - Present Spinal Cord Injury Medicine Board Certification   
2008 - 2009 ABPMR Written and Oral Board Examinations   
2002 - 2007 USMLE Steps 1, 2, and 3   
  
  
MEDICAL LICENSURE   
  
2009 - Present Full Medical License - California State Department of Health - MD A109047   
2008 - 2010 Full Medical License - Washington State Department of Health - MD 60001526   
2004 - 2008 Limited Medical License - Washington State Department of Health   
  
  
PUBLICATIONS (last 5 years)   
  
‘Specialized Respiratory Management for Acute Cervical Spinal Cord Injury: A Retrospective Analysis’. Wong SL, Shem K, Crew J. Topics in Spinal Cord Injury Rehabilitation 2012;18(4):283-290.   
  
‘Safety and Feasibility of using the Ekso Bionic Exoskeleton to Aid Ambulation after Spinal Cord Injury’. Kolakowsky-Hayner SA, Crew J, Moran S, Shah A. Journal of Spine 2013; S4: 003.   
  
‘Low Vitamin D Levels in Persons with Spinal Cord Injury and Increased Incidence of Venous Thromboembolic Events during Acute Inpatient Rehabilitation Stay’   
Timmerman M, Crew J, Shem K, Kim M, Kolakowsky S, Wright J. PM&R 2013:5(9):S140.   
  
‘Severe Hair Loss during Inpatient Rehabilitation due to Telogen Effluvium: A Case Report’   
Varghis N, Crew J. PM&R 2014:6(9):S236.   
  
‘An Unusual Case of Tetraplegia from Yoga: A Case Report’   
Williams L, Eichenbaum L, Nahm L, Crew J. PM&R 2014:6(9):S296.   
  
‘The Value of Maintaining Primary Board Certification in Physical Medicine and Rehabilitation’   
Crew J, Gittler M, Kenndey DJ. PM&R 2014;6(7):650-655.   
  
‘Pressure ulcers in people with spinal cord injury in developing nations’   
Zakrasek ED, Creasey G, Crew J. Spinal Cord 2015:53(1):7-13.   
  
‘Subacute Combined Degeneration of the Spinal Cord Secondary to Nitrous Oxide Abuse’   
Martin E, Dorr J, Tryhorn A, Crew J. Am J Phys Rehabil 2016:95(3):a112.   
  
‘Pulmonary outcomes following specialized respiratory management for acute cervical spinal cord injury: a retrospective analysis.’   
Zakrasek EC, Nielson JL, Kosarchuk JJ, Crew JD, Ferguson AR, McKenna SL. Spinal Cord 2017; 1-7.   
  
  
INVITED PRESENTATIONS/LECTURES (last 5 years)   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at California Society of Respiratory Care, Lake Tahoe, NV 03/2012   
  
‘Vitamin D: Effect on Health and Relevance in PM&R’   
Lecture at Stanford Grand Rounds, Palo Alto, CA 07/2012   
  
‘Description of a 6 Week Pilot Study of the EksoTM Wearable Exoskeleton after SCI’   
Presentation at PVA Annual Conference, Las Vegas, NV 08/2012   
  
‘Exoskeleton Use for Ambulation after Spinal Cord Injury’   
Presentation at Totally Trauma Conference, Monterey, CA 10/2012   
  
‘Prognosis and Quality of Life after SCI’   
Presentation at UCSF Neuroscience Conference, San Francisco, CA 12/2013   
  
‘Spinal Cord Injury Rehabilitation and Research Trends’   
Presentation at Stanford 24th Annual Trauma Symposium 08/2014   
  
‘Spinal Cord Injury Acute Medical Management’   
Trauma Grand Rounds at Fresno Community Regional Medical Center 02/2014   
  
‘Respiratory Management in Spinal Cord Injury’   
Province Rounds at GF Strong Rehabilitation Centre in Vancouver, BC 05/2015   
  
  
WORK EXPERIENCE AND APPOINTMENTS   
  
11/2014 – Present   
Santa Clara Valley Medical Center   
Chair, Physical Medicine and Rehabilitation   
  
8/2011 – Present Santa Clara Valley Medical Center   
Chief of Spinal Cord Injury, Physical Medicine and Rehabilitation   
  
3/2016 – Present Stanford School of Medicine   
Clinical Associate Professor (Affiliated), Department of Orthopaedic Surgery   
  
8/2011 – 7/2014 Stanford Physical Medicine and Rehabilitation Residency Site Director   
Santa Clara Valley Medical Center Site Director for Stanford PM&R Residency   
  
1/2010 – 3/2016 Stanford School of Medicine   
Clinical Instructor (Affiliated), Department of Orthopaedic Surgery   
  
8/2009 – 8/2011 Santa Clara Valley Medical Center   
Associate Chief, Physical Medicine and Rehabilitation   
  
  
RESEARCH EXPERIENCE   
  
2015 - Present Co-PI, SCVMC/Stanford Site, Asterias Stem Cell Clinical Trial in Acute SCI   
2014 - Present Chair, Stanford PM&R Research and Quality Committee   
2012 - 2015 PI, SCVMC Stie, Asubio SUN13837 Clinical Trial in Acute Spinal Cord Injury (SCI)   
2011 - 2013 PI, Treatment of Hypovitaminosis D in SCI   
2010 - 2011 Co-PI, Preliminary Evaluation of Exoskeleton Use after SCI   
2009 - 2011 Co-PI, SCVMC/Stanford Site, Geron Stem Cell Clinical Trial in Acute SCI   
2010 - 2011 PI, Evaluation of Hypovitaminosis D in SCI   
2007 - 2009 Investigator, Mechanical Insufflation Exsufflation use in Tetraplegia   
  
  
AWARDS   
  
2017 Santa Clara County 2016 Employee of the Year, received 2/2017   
2016 Santa Clara County Employee of the Month, February 2016   
2014 Santa Clara Valley Medical Rehabilitation Center Leadership Award   
2013 Stanford University Physical Medicine and Rehabilitation Humanitarian Award   
2011 Sam Schmidt Paralysis Foundation/ASIA Young Investigator Research Grant Award   
  
NATIONAL ACADEMY INVOLVEMENT   
  
2017 - Present Vice Chair of Education, Central Nervous System Council, AAPMR   
2017 - Present Health Advocacy Committee Member, ASIA   
2014 - Present Reviewer, PM&R Journal   
2014 - Present Reviewer, Spinal Cord Journal   
2015 Q Bank question writer, Neuromuscular Medicine, AAPMR

***Matthew Davis, MD***  
Tirr Memorial Hermann

**CV:**  
CURRICULUM VITAE   
  
NAME:   
Matthew E. Davis. M.D.   
  
PRESENT TITLE(S):   
Attending Physician   
The Institute for Rehabilitation and Research, TIRR Memorial Hermann, Spinal Cord Injury Service   
  
Assistant Professor   
The University of Texas McGovern Medical School at Houston, Department of Physical Medicine and Rehabilitation   
  
  
ADDRESS:   
TIRR Memorial Hermann Hospital, 1333 Moursund St. Suite D-110 Houston, TX 77030   
  
BIRTHDATE:   
May 28, 1975   
  
CITIZENSHIP:   
United States Citizen   
  
UNDERGRADUATE EDUCATION:   
Washington & Lee University, Lexington, VA   
Awarded 1998   
  
GRADUATE EDUCATION:   
Doctor of Medicine, 2003   
University of Texas Southwestern Medical Center, Dallas, TX   
Awarded 2003   
  
POSTGRADUATE TRAINING:   
  
Internship 2003-2004   
Presbyterian Hospital of Dallas, Department of Internal Medicine   
Dallas, TX   
  
Residency 2004-2007   
University of Colorado Health Sciences Center, Department of Physical Medicine & Rehabilitation   
Denver, CO   
  
Spinal Cord Injury Fellowship 2007-2008   
University of Washington, Department of Rehabilitation Medicine   
Seattle, WA   
  
  
ACADEMIC APPOINTMENTS:   
  
Clinical Assistant Professor, 2011-present   
Department of Physical Medicine and Rehabilitation   
The University of Texas Medical School at Houston   
Houston, TX   
  
  
ADMINISTRATIVE AND HOSPITAL APPOINTMENTS:   
  
Attending Physician, 2011-present   
The Institute for Rehabilitation and Research (TIRR) Memorial Hermann, Spinal Cord   
Injury Service   
  
Clinical Medical Director, Spinal Cord Injury Service, 2014-present   
TIRR Memorial Hermann   
  
Respiratory Medical Director, 2014-present   
TIRR Memorial Hermann   
  
President, Medical Staff Services (Chief of Staff), 2014-present   
TIRR Memorial Hermann   
  
  
OTHER PROFESSIONAL EXPERIENCE:   
  
Cliical Assistant Professor, 2008-2011   
Department Rehabilitation Medicine   
The University of Texas Health Science Center at San Antonio   
San Antonio, TX   
  
Consultant, Hollister’s Global Clinical Advisory Board for Continence Care, 04/2014.   
  
  
LICENSURE:   
Texas Medical License # N1302, October 2008   
  
  
CERTIFICATION:   
American Board of Physical Medicine & Rehabilitation 07/2008   
Spinal Cord Injury Medicine 12/2008   
  
  
PROFESSIONAL ORGANIZATIONS:   
American Academy of Physical Medicine & Rehabilitation 07/2006-present   
Academy of Spinal Cord Injury Professionals 07/2007-present   
Chair of the Advocacy Committee 09/2016-present   
American Spinal Injury Association 09/2012-present   
Chair of the Health Policy Advocacy Committee 05/2015-present   
Association of Academic Physiatrists 2013-present   
  
  
HONORS AND AWARDS:   
  
Dean’s Teaching Excellence Award, 2012-2013 and 2013-2014   
  
Craig H. Nielsen Foundation Fellowship grant recipient for the funding of a fellowship position in SCI medicine, 2014-2015 and 2016-2017.   
  
Partners in Engagement Service Award, 2014   
  
Physician of the Year, TIRR Memorial Hermann Partners in Caring, 2014.   
  
UTHealth Clinical Safety and Effectiveness Program, participant and graduate, 2015.   
  
Physician of the Year nominee, TIRR Memorial Hermann Partners in Caring, 2016.   
  
Distinguished Service to Humanity Award, McGovern Medical School and Baylor   
College of Medicine departments of Physical Medicine and Rehabilitation, 2017.   
  
  
SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:   
  
Item Writer, American Board of PM&R Spinal Cord Injury Subspecialty Exam, 2012- 2014.   
  
Reviewer, American Journal of Physical Medicine and Rehabilitation. 11/2013-present.   
  
Data Monitoring Committee, Department of Veterans Affairs Cooperative Studies Program, “Exoskeletal-Assisted Walking in Persons with SCI: Impact on Quality of Life. 10/1016-present.   
  
Invited presenter and participant, Neilsen Foundation Bowel and Bladder Workshop. Washington, DC, March 2017.   
  
  
SERVICE ON McGOVERN MEDICAL SCHOOL AT UTHEALTH COMMITTEES:   
PM&R Departmental Committees:   
Clinical Competency Committee for SCI Fellowship Evaluations, 2014-present   
Program Evaluation Committee for SCI Fellowship, 2014-present   
  
  
SERVICE ON McGOVERN MEDICAL SCHOOL AFFILIATED HOSPITAL COMMITTEES:   
Quality Council, TIRR Memorial Hermann – chair   
Medical Executive Committee, TIRR Memorial Hermann – chair   
Memorial Hermann Physician Network Clinical Programs Governance Council   
  
  
CURRENT TEACHING RESPONSIBILITIES   
  
Fellowship Director, Spinal Cord Injury   
Physical Medicine and Rehabilitation Department   
University of Texas Health Science Center- McGovern Medical School, Houston   
2011-present   
Responsibilities include: Transition our residency program into the ACGME’s Next Accreditation System (NAS). Authority and Accountability for the operation of the residency program including Self Study Preparation and Site Visit.   
- Coordinate teaching schedule for weekly didactic sessions every year.   
- Provide 3-6 hours of formal lecture each year to SCI fellows.   
- Improved recruitment of fellows, with higher numbers of applications received.   
- Serve as primary mentor for career and academic development of 1-2 fellows per year.   
- Apply for grant funding for 2 fellowship positions on a yearly basis.   
  
Active Teaching Faculty, SCI inpatient service at TIRR Memorial Hermann   
2011-present   
- Bedside teaching of 12 residents per year (1 resident each month), 3-6 medical students each year.   
- Bedside teaching of observers visiting from other countries, including China, New Zealand, Argentina, and Romania.   
- Provide 3-6 hours each year of formal didactic lectures and informal case reviews during residents’ noon conferences.   
  
  
CURRENT GRANT SUPPORT:   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect/TIRR Foundation   
“Effects of Combined Cerebral and Spinal Direct Current Stimulation on Upper Limb Recovery in Incomplete Spinal Cord Injury (tsDCS)”   
$60,000 2014-2016   
  
P.I.: Matthew Davis, M.D.   
Craig H. Neilsen Foundation   
“Spinal Cord Injury Medicine Fellowship”   
$239,668 2016-2017   
  
Co-Investigator, Subcontract: Matthew Davis, M.D.   
National Institute for Disability and Rehabilitation Research (NIDRR)   
“Texas Spinal Cord Injury (SCI) Model Systems, National Spinal Cord Injury Statistical Center” $468,384 2016-present   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Combined peripheral (BreEStim) and central electrical stimulation (tDCS) for neuropathic pain management“   
$ 60,000 2016-2017   
  
  
PAST GRANT SUPPORT:   
  
Co-Investigator, Subcontract: Matthew Davis, M.D.   
National Institute for Disability and Rehabilitation Research (NIDRR)   
“Texas Spinal Cord Injury (SCI) Model Systems Form II Center, National Spinal Cord Injury Statistical Center” $230,000 2011 – 2016   
  
Co-Investigator: Matthew Davis, M.D.   
Department of Defense   
“Responsiveness of a Neuromuscular Recovery Scale for Spinal Cord Injury: Inpatient and Outpatient Rehabilitation”   
$ 10,000 2012-2013   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Effects of combined transcranial direct current stimulation (tDCS)and robotic-assisted training on arm and hand functions in subjects with incomplete spinal cord injury”   
$ 49,900 2012-2014   
  
Co- Investigator, Subcontract: Matthew Davis, M.D.   
Centers of Disease Control and the Christopher and Dana Reeves Foundation   
TIRR Memorial Hermann with University of Louisville, “NeuroRecovery Network (NRN)”   
$100,000 2012 – 2016   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Breathing-controlled electrical stimulation for neuropathic pain management after spinal cord injury“   
$ 50,000 2013-2014   
  
PI: Matthew Davis, M.D.   
TIRR Rehabilitation Innovation Grant Competition   
“Improving Gait Performance in Individuals with Spinal Cord Injuries: An Intervention Using Robotic Exoskeleton“   
$ 20,000 2013-2015   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury”   
$ 104,347 2013-2015   
  
P.I.: Matthew Davis, M.D.   
Craig H. Neilsen Foundation   
“Spinal Cord Injury Medicine Fellowship”   
$77,392 2014-2015   
  
  
PUBLICATIONS:   
A. ABSTRACTS:   
  
\*Escalon, Miguel X., Davis, Matthew E. Conversion Disorder on an Acute Spinal Cord Injury Rehabilitation Unit: A Case Series. (Colleague presented at the American Academy of PM&R Annual Meeting, Atlanta, GA, November 2012).   
  
\*Patel, Monika, Driver, Larry, Davis, Matthew E. Intrathecal Bupivacaine-Induced Chemical Arachnoiditis. (Colleague presented at the American Academy of Pain Medicine annual meeting, Fort Lauderdale, FL, April 2013).   
  
Shuo-Hsiu Chang, PT, PhD, Marcie Kern, PT, Ms, Chris White, PT, Marie Beirne, PT, Matthew Davis, MD, Gerard Francisco, MD. Algorithmic-based evaluation and treatment approach for assisted walking in wearable robotic exoskeletons: theoretical model. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Vanessa Bernal, BS; Matthew E. Davis, MD; Joel E. Frontera, MD; Georgene Hergenroeder; Gerard E. Francisco, MD. A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Shengai Li, Matthew Davis, Joel Frontera, Sheng Li. A novel non-pharmacological intervention – BreEStim for neuropathic pain management after spinal cord injury. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Radha Korupolu, MD, Patrick Mullan, DO, Matthew Davis, MD. Voltage-gated potassium channel antibody related myelitis: A Case Report. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Argyrios Stampas, MD, Matthew E Davis, MD, Ryan S Kitagawa, MD, Karl M Schmitt, MD, William H Donovan, MD. Communicating Hydrocephalus Due to Traumatic Lumbar Spine Injury: Case Report and Literature Review. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Matthew Davis, MD and Felicia Skelton, MD. Catheter Valves: An Alternative Method of Managing Neurogenic Bladder After SCI. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Matthew Davis, MD; Lex Frieden, MA, LLD (hon). Addressing Perverse Payment Policy and Treatment Guidelines Through Advocacy. Association of Academic Physiatrists Annual Meeting. San Antonio, TX, March 2015.   
  
Prathap Jayaram, MD; Matthew Davis, MD. Evaluating the Risk for Distal-Spiral Femur Fractures In a Chronic SCI Patient. (Colleague presented at the Association of Academic Physiatrists Annual Meeting. San Antonio, TX, March 2015).   
  
Matthew Davis, MD, Lex Frieden, MA, LLE (hon). Physician Leadership in Advocacy in the Emerging Healthcare Environment. Association of Academic Physiatrists Annual Meeting. Sacramento, CA, February 2016.   
  
Vanessa Bernal, CRRP, Matthew Davis, MD, Joel Frontera, MD, Georgene Hergenroeder, BSN, MHA, RN, CCRC, Gerard Francisco, MD. A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury. Association of Academic Physiatrists Annual Meeting. Sacramento, CA, February 2016.   
  
  
B. REFEREED ORIGINAL ARTICLES IN JOURNALS:   
  
Li S., Davis M., Frontera J, Li S. A novel nonpharmacological intervention – breathing-controlled electrical stimulation for neuropathic pain management after spinal cord injury – a preliminary study. Journal of Pain Research. 2016:9 933–940.   
  
Yozbatiran N., Keser Z., Davis M., Stampas A., O’Malley M.K., Cooper-Hay C., Frontera J., Fregni F., Gerard E. F. Transcranial direct current Stimulation (tDCS) of the Primary Motor Cortex and Robot-assisted Arm Training in Chronic Incomplete Cervical Spinal Cord Injury: A proof of Concept Sham-Randomized Clinical Study. NeuroRehabilitation. 15;39(3)401-411. July 2016.   
  
  
C. BOOK CHAPTERS:   
Davis M, Allam A, Korupolu R. Non-Traumatic Spinal Cord Injury and Dysfunction. In: Mitra R, editors: Principles of Rehabilitation Medicine, McGraw-Hill. (In press).   
  
  
D. OTHER PROFESSIONAL COMMUNICATIONS   
  
PRESENTATIONS/LECTURES:   
  
Getting Your Life Back After SCI: Finding Meaning Through Volunteering, School & Work, SCI Forum, Northwest Regional Spinal Cord Injury System, University of Washington Medical Center, Seattle, WA, February 2008.   
  
Spine 101: Development, Anatomy, Injury and Functional Outcomes with Rehabilitation, PVA Chapter Health Training, Paralyzed Veterans of America, Seattle, WA, May 2008.   
  
Functional Decline in Chronic Spinal Cord Injury. Staff training for the Harlingen Outpatient Clinic, San Antonio, TX, November 2008.   
  
Work After Spinal Cord Injury. Physical Disabilities Workshop, Texas Department of Assistive and Rehabilitative Services, San Antonio, TX, May 2011.   
  
Evaluating the Patient With Spinal Cord Injury. Medical student lecture, University of Texas Health Sciences Center at Houston. Houston, TX, November 2011.   
  
Pressure Ulcers. 46th Comprehensive Review Course in PM&R. Houston, TX, March 2012.   
  
Management of Acute Spinal Cord Injured Patients. Texas Tech University Health Sciences Center, El Paso – Trauma Grand Rounds. El Paso, TX, May 2012.   
  
Evaluating the Patient With Spinal Cord Injury. Medical student lecture, University of Texas Health Sciences Center at Houston. Houston, TX, November 2012.   
  
Treating the Patient With Spinal Cord Injury. Lecture to students at Texas Woman’s University School of Occupational Therapy. Houston, TX, November 2012.   
  
Pressure Ulcers. 47th Comprehensive Review Course in PM&R. Houston, TX, March 2013.   
  
An Overview of the Management of Potential Medical Complications in the Paralyzed Patient. Rehab Solutions Conference. Houston, TX, March 2013.   
  
Medical Management of Early Acute Spinal Cord Injury in Adults. Rio Grande Trauma Conference, El Paso, TX, December 2013.   
  
The Roles of the Physiatrist in the Acute Care Setting and Acute Rehab Setting. Rio Grande Trauma Conference, El Paso, TX, December 2013.   
  
Aging in Spinal Cord Injury. Rehab Solutions Conference. Houston, TX. February 2014.   
  
Pressure Ulcers. 48th Comprehensive Review Course in PM&R. Houston, TX, March 2014.   
  
Expected Outcomes following Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Secondary Complications of Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Pain in Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Urinary Tract Infections, Renal Failure, and Public Policy. Association of SCI Professionals Annual Conference. St. Louis, MO, September 2014.   
  
Accessibility in Health Care for People with Disabilities. American Congress of Rehabilitation Medicine Annual Conference. Dallas, TX, October 2015.   
  
Quality, Evidence, and Advocacy in the New Era of Healthcare. American Congress of Rehabilitation Medicine Annual Conference. Dallas, TX, October 2015.   
  
Pressure Ulcers. 49th Comprehensive Review Course in PM&R. Houston, TX, March 2015.   
  
Pressure Ulcers. 50th Comprehensive Review Course in PM&R. Houston, TX, March 2016.   
  
Neurogenic Bladder. American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
The Next Step: What Happens After Acute Care? American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
Advocacy 101. American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
Success in Advocacy: Where We Are and Where We Are Going. Association of SCI Professionals Annual Conference. Nashville, TN, September 2016.   
  
Advocacy for Successful Funding and Policy Making in Patient Care. American Spinal Injury Association Annual Scientific Meeting. Albuquerque, NM, April 2017.   
  
Advocacy Case Series: Complex Durable Medical Equipment Needs of Spinal Cord Injury Patients for Prevention of Complications. Association of SCI Professionals Annual Conference. Denver, CO, September 2017.   
  
Mechanical Ventilation in Spinal Cord Injury Patients. Grand Rounds, Pulmonary and Critical Care Medicine, McGovern Medical School. Houston, TX, September 2017.

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**Expert Panel Discussion of Pathways to Field Testing Clinical Guidelines: Case Study on Ventilator Weaning**

Thursday, May 03, 2018 04:30 PM - 05:15 PM

***Kenneth Parsons, MD***  
Paradigm Outcomes Medical Director

**CV:**  
Kenneth C. Parsons, M.D.   
  
Mailing address:   
6367 S. Jamaica Ct.   
Englewood, CO 80111   
Email – kcparsonsmdpa@aol.com   
Phone – 303-585-1779 Fax – 720-379-7164   
  
Date of Birth: August 17, 1945   
  
Birthplace: Coldwater, Michigan   
  
Citizenship: United States of America   
  
Medical Licensure: State of Michigan – Number 030161   
Issued January, 1971   
(Inactive)   
  
State of Colorado – Number 24980   
Issued: June, 1982   
(Active)   
  
Education:   
  
University of Michigan (3 years pre-med, 1963-1966)   
500 S. State Street, Ann Arbor, Michigan 48109-1045   
  
University of Michigan Medical School (1966-1970)   
1335 East Catherine, Ann Arbor, Michigan 48109-0624   
Graduated: June 6, 1970   
  
Internship: St. Joseph’s Mercy Hospital   
P. O. Box 995   
Ann Arbor, Michigan 48106   
July 1, 1970 – June 30, 1971   
  
Residency: University Hospital   
Ann Arbor, Michigan   
Department of Physical Medicine   
and Rehabilitation   
July 1, 1971 to August 31, 1971   
Sept 1, 1973 to June 30, 1976   
  
  
  
Military Service:   
  
United States Army Reserve   
Active Duty as General Medical Officer   
August 28, 1971 to August 27, 1973,   
Honorable Discharge – May 31, 1977   
  
BOARD CERTIFICATION:   
  
American Board of Physical Medicine and Rehabilitation, 1977 to present   
  
PROFESSIONAL APPOINTMENTS:   
  
Past Hospital Appointments:   
The Institute for Rehabilitation and Research   
Active Medical Staff   
  
Memorial Hermann Hospital, Houston, TX   
Physical Medicine and Rehabilitation   
Consulting Physician   
  
  
PAST ACADEMIC APPOINTMENTS:   
  
Clinical Assistant Professor   
Department of Physical Medicine and Rehabilitation   
University of Texas Health Science Center at Houston   
8/1/1993 – 6/30/2006   
  
Assistant Clinical Professor   
Department of Physical Medicine and Rehabilitation   
Baylor College of Medicine   
7/1/94 – 6/30/2006   
  
PROFESSIONAL SOCIETY MEMBERSHIP:   
  
American Spinal Injury Association   
Past President   
Board of Directors – 1989 – 2003   
  
American Medical Association Retired Member   
  
American Academy of Physical Medicine and Rehabilitation   
Fellow   
  
International Medical Society of Paraplegia   
Retired Member   
  
Academy of Spinal Cord Injury Professionals   
Board of Directors: 2005 - 2007   
  
  
PROFESSIONAL EXPERIENCE:   
  
Paradigm Outcomes Medical Director (contractor)   
Assisting in the case management of catastrophic workers compensation cases   
1996- present   
  
  
Consultation Services   
Paralyzed Veterans of America   
September to December, 2009   
  
  
Vice-Chairman and Residency Program Director   
Department of Physical Medicine & Rehabilitation   
University of Texas Health Science Center at Houston 6/1/1996 – 6/30/2006   
  
Consulting physician for Harris County Hospital District   
  
Consulting physician for The Methodist Hospital, Houston   
  
Director of the Spinal Cord Injury Program   
The Institute for Rehabilitation and Research   
Houston, TX   
July 1997 – June 2006   
  
Chairman   
Consortium for Spinal Cord Medicine Steering Committee   
1994-2004   
  
  
  
  
  
PRESENTATIONS AND LECTURES:   
  
1. “Expected Outcomes Management: Proposal for Interaction CD ROM”. Software development for ASIA. March 17, 1997.   
  
2. “Lower Extremity Orthotics and Gait in Spinal Cord Injury”, Resident Lecture Series. The Institute for Rehabilitation and Research. May, 1997.   
  
3. Spinal Cord Injury Rehabilitation in the Outpatient Setting: Feb. 16, 1998, Case Magazine. Kenneth C. Parsons, M.D.   
  
4. Advance in Managed Care Symposium – Mexico City, Mexico, J.W. Marriott Hotel, January 21, 1998. Kenneth C. Parsons, M.D.   
  
5. Expected Outcomes in Spinal Cord Injury. Rehabilitation Solutions. The Institute for Rehabilitation and Research. Houston, Texas, May 7, 1998. Seminar Presentation. Kenneth C. Parsons, M.D., Lyn Emerich, P.T.   
  
6. Surgical and Medical Intervention During Initial Acute Phase. Kenneth C. Parsons, M.D. Contemporary forums. Workshop Presentation. September 28, 1998.   
  
7. VAC: Vacuum Assisted Wound Treatment. Explores use in preparation of deep wounds for surgery and for facilitating complete wound closure. Contemporary forums. A Multidisciplinary Approach to Today’s Clinical Challenges. September 29, 1998. Adams Mark Hotel. San Antonio, Texas. Kenneth C. Parsons, M.D.   
  
8. Clinical Practice Guidelines: The Road to Quality Care: Contemporary Forum. September 30, 1998. Adams Mark Hotel. San Antonio, Texas. Kenneth C. Parsons, M.D.   
  
9. “Handling “Divergent Opinion” in CPG Development. Consortium for Spinal Cord Medicine. Washington, D.C. Paralyzed Veterans of American. October 9, 1998.   
  
10. “Wound VAC Presentation”. Marketing Group, TIRR Hospital, Houston, Texas. February 25, 1999.   
  
11. “Spasticity Management in Spinal Cord Injury Patients”. TIRR Hospital. Houston, Texas February 25, 1999. Resident Lecture Series. Teaching Presentation. Alliance Requirement.   
  
12. “The Anatomy and Physiology of the Spinal Cord Before and After Injury”. Contemporary Forums, 7th Annual Multidisciplinary Conference. Westin Seattle Hotel. Seattle Washington, May 12, 1999.   
  
13. “Spinal Cord Injury Clinical Practice Guidelines”. Mini-course. 1999 Annual assembly of the American Academy of Physical Medicine and Rehabilitation in Washington, D.C. Session Director. November 12, 1999.   
  
14. “The First 72 Hours After Injury.” Kenneth C. Parsons, M.D., Rehabilitation Solutions Conference, Houston Marriott Hotel-Medical Center, October 20, 2004, Houston, TX.   
  
15. “Focusing on Achieving Outcomes after Spinal Cord Injury: A Unique Case Management Model” Academy of Spinal Cord Injury Professionals, September 2, 2014.   
  
16. “VAC: Subatmospheric Wound Therapy” University of Rochester, Department of Physical Medicine and Rehabilitation, October 3, 2014.   
  
17. “Exoskeleton Ambulation” University of Rochester, Department of Physical Medicine and Rehabilitation, October 5, 2014.   
  
18. “Functional Outcomes After Spinal Cord Injury” Representing Paradigm Outcomes   
  
ACE Insurance Company April 20, 2015   
Pinnacol Insurance Company November 10, 2015   
Munich Re, San Francisco, CA. November 17, 2015   
Montana Governor’s Workers Compensation Conference, August 25, 2016.   
  
19. “Obesity After Spinal Cord Injury” Paradigm Summit Conference, October 2, 2016, Dana Point, California.   
  
  
  
  
PUBLICATIONS:   
  
1. Parsons KC: Dermatological Complications of Spinal Cord Injury. ASIA Bulletin 1, No. 2, Fall 1983   
  
2. Herz DA, Parsons KC, and Pearl L: “Percutaneous Radiofrequency Foraminal Rhizotomies,” Spine 9:7, pp.729-732, 1983   
  
3. Parsons KC and Lammertse DP: “Rehabilitation and Spinal Cord Disorders: Epidemiology, Prevention and System of Care and Spinal Cord Disorders”. Archives of Physical Medicine and Rehabilitation, Vol. 72:S692-S294, March 1991.   
  
4. Clossum JB, Toerge JE, Ragnarsson KT, Parsons KC and Lammertse DP: “Rehabilitation in Spinal Cord disorders: Comprehensive Management of Spinal Cord Disorders”. Archives of Physical Medicine and Rehabilitation, Vol. 72:S298-S308, March 1991.   
  
5. Parsons KC: The Impact of Spinal Cord Injury on Long-Term Survival: Journal of Insurance Medicine, Volume, Volume 23, No. 4, Winter 1991.   
  
6. Parsons KC: “Case Management: One Physician’s Perspective”. Topics in Spinal Cord Injury Rehabilitation Case Management. April 1999 (4)4:38-44   
  
7. Donovan WH, Halter JA, Graves DE, Blight AR, Cavillo O, McCann MT, Sherwood AM, Castillo T, Parsons KC, Strayer JR; Intravenous Infusion of 4-AP in Chronic Spinal Cord Injury Subjects; Spinal Cord 38:7-15, 2000.   
  
8. Chiou-Tan FY, Garza H, Chan KT, Parsons KC, Donovan WH, Robertson CS, Holmes SA, Graves DE, Rintala DH.: “Comparison of Dalteparin and Enoxaparin for Deep Venous Thombosis: Prophylaxis in Patients with Spinal Cord Injury.” American Journal of Physical Medicine and Rehabilitation 82 (9): 678-685, 2003.   
  
9. Parsons, KC: “Respiratory Management Following Spinal Cord Injury: A Clinical Practice Guideline for Health-Care Professionals”. Consortium for Cord Medicine Clinical Practice Guidelines. January 2005 Published by the Paralyzed Veterans of America.

***Michael Beattie, Ph.D***  
University of California - San Francisco

**CV:**  
Name: Michael Stephen Beattie, PhD   
Position: Professor In Residence, Step 7   
Neurological Surgery   
School of Medicine   
Address: Box 0899   
SFGH Bldg. 1, 101   
University of California, San Francisco   
1001 Potrero Ave.   
Voice: 415-206-3859   
Fax: 415-206-3948   
Email: Michael.Beattie@ucsf.edu   
  
  
EDUCATION   
1967 - 1972 University of California, Davis   
B.S. Biological Psychology   
  
1972 - 1974 Ohio State University   
M.A. Neuropsychology   
  
1974 - 1977 Ohio State University   
Ph.D. Neuropsychology/ Neuroanatomy   
  
1977 - 1978 Ohio State University   
NIH Postdoctoral fellow Neuroanatomy   
  
1978 - 1979 Michigan State University   
Postdoctoral Neurophysiology   
  
  
  
PRINCIPAL POSITIONS HELD   
1979 – 1985   
Ohio State University Assistant Professor   
Neurosurgery and Anatomy   
  
1985 - 1992   
Ohio State University Associate Professor   
Neurosurgery and Cell Biology, Neurobiology and Anatomy   
  
1992 - 1999   
Ohio State University Professor Cell Biology,   
Neurobiology, and Anatomy and Neurological Surgery   
  
1999 - 2002   
Ohio State University Professor and   
Interim Chair Neuroscience   
  
2002 - 2006   
Ohio State University Brumbaugh   
Professor and Chair   
Neuroscience   
  
2003 - 2006   
Ohio State University   
Director Neurobiology of Disease Institute   
  
2003 - 2006   
Ohio State University   
Director Neuroscience Graduate Program   
  
2006 - present   
University of California, San Francisco   
Professor in Residence   
Dept. of Neurological Surgery, Brain and Spinal Injury Center (BASIC)   
  
2010 - present University of California, San Francisco   
Director of Research   
UCSF Brain and Spinal Injury Center   
  
  
HONORS AND AWARDS   
1979: National Research Service Award, Individual NIH Fellowship   
1994: Knight Lecture in Neuroscience Miami Project to Cure Paralysis, Univ. of Miami School of Medicine   
1997: Rudolf Magnus Visiting Professor and Lecturer, Rudolf Magnus Insititute, Univ of Utrecht, NL   
2000: John D. and E. Olive Brumbaugh Chair of Brain Research and Teaching Ohio State University College of Medicine   
  
2013 2012: Reeve-Irvine Research Medal for meritorious research in spinal cord injury, Reeve-Irvine Research Center, UC Irvine   
INVITED PRESENTATIONS – INTERNATIONAL (Since 2012 – Present)   
  
2012 Reeve-Irvine Medal Symposium, Newport Bech, CA, May, 2012   
Symposium speaker   
  
2012 National Neurotrauma Symposium, July, 2012, Phoenix, AZ   
Symposium speaker   
  
2012 FASEB Summer Research Conference, 'Translational Neuroimmunology', Carefree, AZ, July-August 2012.   
Symposium speaker   
  
2012 Stanford Symposium on Regeneration, Repair and Restoration of Function after Spinal Cord Injury, Nov 15- 16.   
Symposium speaker and panel discussant   
  
2013 International Symposium on Neural Regeneration, Asilomar, Dec, 2013.   
Symposium chair and speaker   
  
2014 International Neurotrauma Symposium, Budapest , Hungary, March 2014   
Platform speaker   
  
2014 International Neural Regeneration Symposium, Nanjing, China, Sept 2014.   
Invited speaker   
  
2015 Experimental Biology 2015, Symposium on Injury and Repair after SCI, Boston, March 2015 Invited speaker   
  
2015 International Spinal Cord Society, symposium, May 14, 2015   
Invited speaker   
  
2015 International Symposium on Neural Regeneration, Asilomar, November, 2015   
Invited speaker   
  
2016 International Spinal Cord Society, Vienna, September   
Invited speaker   
  
2017 4th Annual International Spinal Cord Repair Symposium ISCORE 2017, Barcelona, Spain, Nov 3-4, 2017.   
Plenary speaker   
  
INVITED PRESENTATIONS – NATIONAL (Since 2012 – Present)   
  
2012: Indiana University School of Medicine, Stark   
Neuroscience Institute, Brain and Spinal Cord Injury lecture series,   
Invited seminar speaker   
  
2013: Reeve-Irvine Medal Symposium, May 3, 2013   
Medalist/speaker   
2013: National Neurotrauma Symposium, August 4-7, 2013   
Symposium chair and speaker   
  
2014: University of Virginia Neuroscience Graduate Program Seminar Series, April 2014   
Invited seminar Speaker   
  
2014: American Spinal Injury Association Annual Meeting, San Antonio, TX, May 2014   
Symposium speaker   
  
2014: Ohio State University College of Medicine, Dept.of Neuroscience, May 2014   
Invited seminar   
Speaker   
  
2014: UCSF/BASIC Annual Neurotrauma Symposium, San Francisco, CA   
Invited speaker   
  
2016: American Spinal Injury Association,   
Pre-course on translational SCI speaker, panel member   
  
2016 Current Advances in Spinal Cord Injury Research Symposium, Rutgers New Jersey Medical School, May 11, 2016   
Symposium speaker   
  
2016 NIH, NINDS workshop on preclinical SCI data management, Bethesda, Sept. 2016   
Workshop speaker/panel   
  
2016 DoD, CDMRP research progress in SCI, Fort Detrick, MD., Sept. 2016   
Speaker   
  
2017 San Francisco Neurological Society symposium, Monterey, March 26, 2017   
Invited speaker   
  
2017 American Spinal Injury Association, Translational SCI Research course, Albuquerque, NM, April 29, 2017.   
Invited speaker   
  
2017 Temple Univ/ Shriner's Pediatric Research Center seminar series, Philadelphia AP, May 26, 2017.   
Seminar speaker   
  
  
  
RESEARCH AND CREATIVE ACTIVITIES SUMMARY   
My research program is run in collaboration with my colleague and spouse Jacqueline   
C. Bresnahan. Our laboratories share space, equipment, and we have varying joint supervision   
over students, postdocs, and technical staff. Although we contribute to all projects together, I   
have had a tendency to oversee more of the cell biological aspects with Dr. Bresnahan   
focusing somewhat more on behavior and neurological outcomes. We share a strong interest   
in anatomical studies and quantitative analysis of spinal cord injury and outcomes. In the past   
5 years, I have moved into the realm of clinical observational studies of spinal cord injury   
patients at ZSFG, and this is emerging as an important research effort. The laboratory is   
currently organized around several interrelated themes, including:   
  
1. Analysis of secondary injury and spontaneous repair in rodent models of spinal cord   
contusion lesions, and related tissue culture studies of glial and neuronal cell death. The role of   
TNFa, AMPA receptors, and microglia has been a focus.   
  
2. Transplantation of progenitor cells as a means of reducing secondary damage and for cell replacement. We are expanding this project to examine the role of the tissue microenvironment (e.g. oxidative stress, cytokines) in the proliferation and differentiation of transplanted and resident stem and progenitor cells. This effort has recently moved into our non-human primate model of SCI, and we have just received an NIH R01 to pursue this.   
  
3. Development of new animal models for studying CNS damage   
and repair, including the development of cervical SCI contusion models in rodents and nonhuman primates. Autonomic outcome measures have also been a focus. We have used highfield MRI to characterize acute and secondary injury in contusion injuries of the rat and monkey spinal cord. These models are used to test translational treatment strategies for SCI. We have developed a model of combined brain and spinal cord injury that will be based on detailed evaluation of clinical findings and practice in combined injuries.   
  
4. We have moved into traumatic brain injury models and treatments in both rats and mice, and   
have studied the role f peripheral monocytes in the production of secondary damage. We have   
extended our studies of the role of the p75 neurotrophin receptor in seconday damage from   
SCI to TBI, resulting in two recent high impact papers.   
  
5. We have participated in the California Primate Consortium, led by Dr. Mark Tuszynski at   
UCSD, for the past 10 years, developing tools for evaluating recovery of forelimb and hindlimb   
function in non-human primates after cervical spinal cord lesions (hemisections). This has led   
to the discovery of a close relationship between forelimb recovery and corticospinal tract   
sprouting in the macaque monkey. Funding has been approved to extend this work to the   
development of a unilateral cervical contusion injury in primates that will be analogous to that   
developed in our lab for the rat and mouse.   
  
6. We are now entering patients with SCI into a prospective observational study that aims to   
use early critical care variables, imaging, and gene expression analysis to predict outcomes.   
This work brings together our preclinical scientific group with a team of clinical investigators at   
BASIC and is a truly translational effort. The work is funded by several DoD and Foundation   
awards.   
  
  
  
  
RESEARCH GRANTS (Since 2012-Present)   
  
  
1. W81XWH-10-1-0910 M. Beattie (initiating PI), G. Manley, G. Creasey, partner PIs   
Beattie (PI)   
DoD/CDMRP SCIRP Translational Partnership Award ( 09/01/2010 08/31/2013)   
Mild TBI and spinal cord injury: a bedside to bench approach to model development   
$ 250,000 direct/yr 1; $ 750,000 total   
This translational partnership award will use information from clinical practice on combined   
TBI and SCI to develop animal models that can help predict effective treatments for combined injuries.   
  
2. 1R01 NS069537-01 Beattie, co-I; Ferguson, PI Ferguson (PI)   
NIH/NINDS 2010-03-01 2013-12-31   
Metaplasticity and recovery after spinal cord injury: cellular mechanisms   
$ 247,755 direct/yr 1; $ 743,265 total   
The proposed project explores cellular mechanisms that regulate a form of spinal cord learning that is thought to contribute to recovery of function after SCI.   
  
3. No number Tuszynski, PI   
Veterans Administration Pilot Grant 2010-06-01 2012-05-31   
Development of cervical contusion model of SCI in primates (Bresnahan and Beattie, UCSF PIs (interagency agreement))   
$ 100,000direct/yr 1   
  
  
4. A119405 PI Beattie (PI)   
SanBio, Inc. 04/15/2012 12/01/2013   
SB623 cells in sub-acute and chronic cervical spinal cord injury.   
$ 67,200 direct/yr 1; $ 67,200 total   
The neuroprotective efficacy of human SB623 mesenchymal derived stem cells will be   
tested in sub-acute and chronic unilateral cervical spinal cord contusion injuries using a   
battery of forelimb function tests and histological outcome measures.   
  
5. 1R01 NS069537-01 Beattie, co-I; Ferguson, PI Ferguson (PI)   
NIH/NINDS 2010-03-01 2013-12-31   
Metaplasticity and recovery after spinal cord injury: cellular mechanisms   
$ 247,755 direct/yr 1; $ 743,265 total   
The proposed project explores cellular mechanisms that regulate a form of spinal cord   
learning that is thought to contribute to recovery of function after SCI.   
  
6. No number Bresnahan and Beattie, UCSF PIs, Tuszynski (PI)   
California spinal cord injury consortium 2010-03-01 2014-02-28   
VA Merit Award to Mark Tuszynski, San Diego VAHC (interagency personnel agreement)   
$ 120,000 direct/yr 1; $ 480,000 total   
This IPA provides salary support for work on the VA-California SCI consortium, which has developed a non-human primate model of SCI. Animal work is done at UC Davis. Data analysis and evaluation is done at UCSF.   
  
7. No number Tuszynski, PI   
Veterans Administration Pilot Grant 2010-06-01 2012-05-31   
Development of cervical contusion model of SCI in primates (Bresnahan and Beattie, UCSF PIs (interagency agreement))   
$ 100,000 direct/yr 1   
  
8. W81XWH-10-1-0910 M. Beattie (initiating PI), G.Manley, G. Creasey, partner PIs; Beattie (PI)   
DoD/CDMRP SCIRP Translational Partnership Award 09/01/2010 08/31/2013   
Mild TBI and spinal cord injury: a bedside to bench approach to model development   
$ 250,000 direct/yr 1; $ 750,000 total   
This translational partnership award will use information from clinical practice on combined   
TBI and SCI to develop animal models that can help predict effective treatments for   
combined injuries.   
  
9. SRA PI Beattie (PI)   
Sanofi-Aventis 01/01/2012 12/31/2014   
Sanofi-BASIC collaboration, project 1: Traumatic brain injury biomarkers   
$ 110,389 direct/yr 1; $ 110,389 total   
This project examines the effects of SAR127963 on biomarkers of inflammation in peripheral blood monocuclear cells in TBI patients   
  
10. SRA PI Beattie (PI)   
Sanofi-Aventis 01/01/2012 12/31/2014   
Sanofi-BASIC collaboration project 2: Protection of oligodendrocytes with SAR127963 after TBI in rats   
$ 113,636 direct/yr 1; $ 113,636 total   
Examine the neuroprotective effects of SAR127963 on oligodendrocytes after experimental   
TB I in the rat   
  
11. A119405 PI Beattie (PI)   
SanBio, Inc. 04/15/2012 12/01/2013   
SB623 cells in sub-acute and chronic cervical spinal cord injury.   
$ 67,200 direct/yr; $ 67,200 total   
The neuroprotective efficacy of human SB623 mesenchymal drived stem cells will bne   
tested in sub-acute and chronic unilateral cervical spinal cord contusion injuries using a   
battery of forelimb function tests and histological outcome measures.   
  
21. PI Beattie (PI)   
Sanofi-Aventis 10/01/2012 09/30/2014   
2 Projects: SAR 17643 $ 220,000 direct/yr 1; $ 440,000 total   
Evaluate a p75ntr antagonist in heman and experimental TBI.   
  
22. 1R01 NS069537-01 Beattie, co-I; Ferguson, PI Ferguson (PI)   
NIH/NINDS 2010-03-01 2013-12-31   
Metaplasticity and recovery after spinal cord injury: cellular mechanisms   
$ 247,755 direct/yr 1; $ 743,265 total   
The proposed project explores cellular mechanisms that regulate a form of spinal cord   
learning that is thought to contribute to recovery of function after SCI.   
23. NS 038097 PI 25 % effort Beattie (PI)   
NIH, NINDS 06/01/2005 03/31/2017   
Mechanisms of secondary damage in spinal cord injury $ 264,000 direct/yr 1   
$ 1,320,000 total   
The aims of this project include extending current studies of AMPAR trafficking in neurons to glial cells, further testing the hypothesis that membrane AMPAR trafficking effects are recruited over time and space by the expanding wave of secondary injury, and using drugs that affect different points in the sequence of TNFa-mediated CP-AMPAR insertion to expand the preclinical evaluation of this target for clinical application. This award is in an no cost extension.   
  
24. NS042291-A1 Co-I, UCSF subcontract 5 % effort Bresnahan, Tuszynski (PI)   
NIH, NINDS 08/15/2011 03/14/2017   
Plasticity and regeneration in the primate spinal cord   
$ 990,000 direct/yr 1; $ 4,950,000 total   
This project proposes to examine the molecular, physiological, and behavioral effect of   
cortical stimulation on the pattern of recovery of function after cervical hemisection in the   
primate spinal cord. Chronic intermittent cortical stimulation and chondroitinase treatments will be tested in this primate model of SCI.   
  
25. CHN 260965 Co-I Bresnahan (PI)   
Craig H. Neilsen Foundation 07/01/2013 06/30/2016   
Neuroprotection in a contusion SCI model in the nonhuman primate.   
$ 190,930 direct/yr ; $ 572,590 total   
This award will fund the continued development of a uniltaeral cervical contsuion injury   
model of SCI in NHPs, and fund a trial of anti-TNF therapies.   
  
26. 1R01 NS067092-01A1 Beattie, Co-I; Ferguson, PI 5% % effort Ferguson (PI)   
NIH/NINDS 2010-07-01 2017-06-30   
Bioinformatics for translational spinal cord injury research   
$ 243,000 direct/yr; $ 1,215,000 total   
By pooling data from several laboratories and making cross-species comparisons, we will leverage existing experimental data to identify common metrics of SCI that can be used for evaluating mechanism of SCI that translate across species.   
  
27. SC120259 PI 02 % effort Beattie (PI)   
DoD, CDMRP, SCIRP 10/01/2013 09/30/2017   
SC120259 - Effects of Early Acute Care on Autonomic Outcomes in SCI: Bedside to Bench and Back. $ 250,000 direct/yr 1; $ 750,000 total   
This award funds work on both rodent and human SCI. Rat mean arterial pressure during SCI surgery is manipulated to determine the effects on outcomes, while a prospective study of critical care predictors of outcome in humans is run in parallel.   
Principal Investigator   
  
  
  
PUBLICATIONS (SINCE 2012-PRESENT)   
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EDUCATION   
Master of Science, Human Services and Studies/Leisure Services and Studies, Florida State   
University, Tallahassee, Florida,1980.   
Bachelor of Science, Recreation Administration, California State University, Fresno, 1976.   
  
  
PROFESSIONAL EXPERIENCE   
Paralyzed Veterans of America, Washington, DC   
October 2016 - Present   
Director of Research and Education -   
Responsible for managing all aspects of the Research, Education and Clinical   
Practice Guidelines Program, including the Spinal Cord Research   
Foundation, the Education and Training Foundation, and the Consortium for   
Spinal Cord Medicine’s guidelines. Develops and maintains knowledge of   
research, education, and training activities relating to spinal cord injury and   
disease relevant to PVA's mission. Provides direct management of all   
activities of the SCRF and the ETF. Coordinates Research, Education and   
CPG planning activities to develop new or special initiatives and to determine   
future program directions. Serves as a liaison to outside organizations as   
appropriate and develops productive working relationships with organizations   
with overlapping interest in spinal cord research and education activities.   
  
ARKANSAS SPINAL CORD COMMISSION, Little Rock, Arkansas   
April 1989 - May, 2013   
Executive Director   
Served as chief administrator of agency serving individuals with spinal cord   
injuries. Oversaw all aspects of agency function including fiscal management,   
personnel, program development, facilities, contracts. Provided supervision and   
direction to management staff. Served as agency liaison to Advisory Commission   
and Governor’s office. Carried out legislative mandates and assure compliance   
with state and federal regulations. Developed funding proposals for special   
projects and grants. Worked collaboratively and cooperatively with other   
agencies serving people with disabilities. Wrote, interpreted and implemented   
agency policy. Coordinated continuing education for agency staff. Served as   
primary advocate for the needs of individuals with SCD in Arkansas.   
  
NEW MEDICO REENTRY SERVICES OF ARKANSAS   
July 1988 to April 1989 Benton, Arkansas   
Program Case Manager   
Served as treatment team leader on neurobehavioral post acute brain injury   
rehabilitation program. Developed client service plans and facilitate client   
progress through program. Served as primary liaison with insurers and their   
representatives. Compile documentation and generate initial and monthly reports   
on each client. Monitor cost effectiveness of treatment programs. Accountable   
for family satisfaction in all phases of client care. Responsible for discharge   
planning and follow up. Recruit, hire, orient, supervise and evaluate clinical and   
residential staff. Member of management team involved in program development   
and evaluation, long range planning and facility based marketing.   
  
ARKANSAS SPINAL CORD COMMISSION, Little Rock, Arkansas   
Nov. 1987 to July 1988 Case Manager/Rehabilitation Counselor III   
Provided case management services to over 150 spinal cord injured adults and   
children in Pulaski County. Assessed client needs and financial status. Assisted   
clients in identifying and obtaining resources and equipment.   
Coordinated attendant care. Interfaced with reimbursement sources (including   
private insurers, Medicare and Medicaid), physicians and other health and   
community service providers. Direct services provided included counseling,   
referrals and advocacy. Completed documentation and maintained financial   
records.   
CALIFORNIA CENTER FOR REHABILITATIVE SERVICES, Fresno, California   
July 1985 to Sept. 1987   
Coordinator of Residential Services / Director of Recreation Therapy   
Developed a therapeutic recreation program for outpatient rehabilitation center.   
Assessed, planned, implemented and evaluated leisure education, community   
reintegration, community mobility and resource development and utilization   
components of a neurological retraining program for brain injured adults.   
Responsibilities included marketing, community liaison and extensive   
documentation, development of agency and departmental policies and   
procedures and performance evaluations. As Coordinator of Residential   
Services, responsible for recruitment, orientation, training, supervision and   
evaluation of residential staff of eight. Coordinated development and   
implementation of activities of daily living treatment program. Other   
responsibilities included: maintaining facility and equipment, liaison with patients   
and families, coordinating community resources.   
  
SANTA CLARA VALLEY MEDICAL CENTER, San Jose, California   
Oct. 1980 to July 1985 Supervisor, Therapeutic Recreation Department   
Coordinated therapeutic recreation programs and staffing for regional Spinal Cord   
Injury/Brain Injury Rehabilitation Center. Oriented, supervised, trained and   
evaluated professional staff, students and volunteers. Involved in the   
development and implementation of division policies and procedures, budget,   
quality assurance, public relations and fund raising. Served on Rehabilitation   
Center Education, Program Planning and Master Scheduling Committees.   
Coordinated Rehabilitation Center Open House. Involved in planning and   
coordination of conferences and workshops.   
  
DEPARTMENT OF LEISURE SERVICES AND STUDIES, Florida State University, Tallahassee, Florida   
Sept. 1979to Aug. 1980   
Graduate Teaching Assistant   
Involved in course development and preparation, student supervision, research   
and evaluation of undergraduate curriculum. Taught program planning course   
and supervised fieldwork students.   
  
THERAPEUTIC RECREATION SERVICES, Santa Clara Valley Medical Center,San Jose, California   
Jan. 1978 to Aug. 1979   
Recreation Therapist   
Planned, implemented and evaluated therapeutic recreation programs on   
rehabilitation, medical, pediatric and burn units. Developed wheelchair sports,   
therapeutic swim and leisure education programs. Responsible for patient   
assessment, documentation, activity analysis and community reorientation.   
  
FRESNO COMMUNITY HOSPITAL, Fresno, California   
Apr. 1976 to Jan. 1978   
Recreation Therapist   
Hired at end of therapeutic recreation internship. Provided therapeutic recreation   
programs on rehabilitation and oncology/hematology units.   
  
PROFESSIONAL CERTIFICATIONS   
Certified Therapeutic Recreation Specialist # 32166, National Council for Therapeutic   
Recreation Certification since 1980.   
PROFESSIONAL AFFILIATIONS   
Academy of Spinal Cord Injury Professionals, member 1988 - present, program committee,   
1994 - 98, program chair 1996, editorial board, 1999 - 2001, membership committee 2003 –   
20013. Essie Morgan Excellence Award, 2013.   
American Spinal Injury Association, member 1990 - present, program committee 2012-13   
Arkansas ADA Roundtable, founding member   
Arkansas Disability and Wellness Advisory board, 1989 – 2013   
Arkansas Technology Access Project, advisory board member 2000 - 2013   
Arkansas Spinal Cord Foundation, Board of Directors, secretary, 2004 – 2013   
Arkansas Therapeutic Recreation Society, member, Treasurer, 2007 professional of the year   
Be Extraordinary, founding member, Board of Directors, 2010 – present   
California Board of Recreation & Park Certification, member, 1983 -1987   
Central Arkansas Library System, Board of Trustees, Vice President, 2012, Chair, Childrens   
Library Committee, 2010 – 2013   
City of North Little Rock, AR, ADA Grievance Board, member, 1991 to 2013   
Craig H. Neilsen Foundation Quality of Life Review Board, 2012 – present   
National Spinal Cord Injury Association, member , Board of Directors 2004 – 2007   
National Wheelchair Basketball Association, team representative, Commissioner’s Advisory   
Board, Tournament Selection Committee Chair, Bylaws Committee Chair, Division II   
Commissioner, Wayne Kunishige Scholarship Committee Chair, National Functional Classifier   
Paralyzed Veterans of America, Education Foundation Board of Directors, 2000 – present   
Pulaski County Advisory Committee on People with Disabilities, 1988, 2007   
Spina Bifida Association of America, member   
Spina Bifida Association of Arkansas, member, Board of Directors, 1990 to 2013   
San Jose State University, Adjunct Professor, 1984-1987.   
Texas Women’s University Adjunct Professor, 1985 -1987   
  
  
PUBLICATIONS   
Weiss, M, Lady, C, Brown, ML, Cope, DN : Measuring The Effects of a Therapeutic Recreation   
Program, Archives of PM & R, Vol. 61, pp 494-5, 1980.   
Lady, C, A Task Analysis, Programming Trends in Therapeutic Recreation, Vol.1 No.1, 1981.   
Lady, C. Building Teams That Work, Health Directions, Santa Monica, CA, 1985.   
Lady, C, Whipple, M, Games People Play: Strategies for Leisure Education in Stumbo, N,   
Leisure Education: A Manual of Activities & Resources , University of Illinois Press, 1986.   
Cheryl Lady Vines Page 5   
Vines, CL, Farley, TL, McNeir, L, McCluer, S, Booth, B, & Carroll, C, (1991), To Document and   
Reduce the Incidence of Pressure Sores in Spinal Cord Injured Individuals, Little Rock, AR:   
author.   
Vines, CL, Carroll, CC, McCluer, SM, Farley, TL, Booth, BA: Results of In-home Pressure Sore   
Prevention at Eighteen Month Follow up, Journal of the American Paraplegia Society, Vol. 6,   
No. 2, pg 87, 1993.   
Hollis, B, Parnell, M, Vines, CL, Collaboration, Creativity and Cooperation: Providing Services   
to the Spinal Cord Injured in Rural Communities in Arkansas, SCI Psychosocial Process, Vol. 6   
No.3, pp 113 -15, 1993.   
Marini,I, Rogers,L, Slate,J, Vines, CL, Self Esteem Differences Among Persons with Spinal   
Cord Injury, Rehabilitation Counseling Bulletin, Vol. 38, No. 3 pp 198 - 206, 1995.   
Vines,CL, Maness,J, Farley,T, McCluer,S., Bynum,RS, Shackelford,M & Ledbetter,C, (1996).   
Identifying Secondary Conditions in Arkansans with Spinal Cord Injuries, Little Rock, AR: author.   
Vines,CL, Shackelford,M, Farley,T, McCluer,S, Bynum,RM, (1996). Identifying Secondary   
Conditions in Women with Spinal Cord Injuries, Little Rock, AR, author.

***Stephen McKenna,***   
Paradigm Outcomes Medical Director

**CV:**  
STEPHEN L. McKENNA   
Department of PM&R, Room 1E004c   
751 S Bascom Ave   
San Jose, CA 95128   
  
EDUCATION   
  
6/2002-5/2005   
Internal Medicine Resident, Santa Clara Valley Medical Center, San Jose CA   
  
9/1997-5/2002   
Stanford University, School of Medicine, Stanford, CA – MD   
  
6/1988-5/1994   
University of California, Berkeley, CA – BA   
Applied Mathematics with Department Honors   
  
6/1988-5/1994 University of California Berkeley, CA – BA   
Statistics (Epidemiology, Honors Thesis)   
  
LICENSES/BOARD CERTIFICATION   
  
2/04-present California State Medical License   
2005-2025 Internal Medicine – American Board of Internal Medicine Certification   
2008-2018   
2015-2018 Neurocritical Care – United Council for Neurologic Subspecialties   
Certified Clinical Research Professional, Society of Clinical Research Associates   
  
RESEARCH EXPERIENCE   
  
2015-present Phase 1/21 Clinical Assessment of Human Embryonic Stem Cell-Derived Oligodendrocyte Progenitor Cells (AST-OPC1) Dose Escalation in Patients with Subacute Cervical SCI - Principal Investigator (SCVMC)   
  
The primary outcome measure for this trial is to identify possible adverse events within 1 year (365 days) that are related to AST-OPC1 injection. Secondary outcome measures include evaluate of neurological function as measured by upper extremity motor scores and motor level on International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI) examinations at 30, 60, 90, 180, and 365 days after injection of AST-OPC1.   
  
2015-present   
Non-Invasive Continuous Hemodynamic Monitoring in Individuals with Cervical Spinal Cord Injury during Acute Rehabilitation – Sub-Investigator   
  
This study will evaluate a device prototype to continuously record hemodynamic data on the wearer including HR, BP, pulse oximetry, HCO3 and CO. At the end of the week of physiological monitoring, study investigators will extract and record manually collected vital signs and time of recording (including BP, HR, pulse oximetry, and temperature) The goal will be to evaluate the ability of the device to predict symptomic and sublinical autonomic dysreflexia in relationship to clean intermittent catheterization and bowel programs. Each patient will be given time sheets to record symptoms of AD (headache, diaphoresis, flushing, malaise, anxiety, goose bumps) and OH (lightheadedness, dizziness, nausea, profuse sweating) as well as chart review from nursing notes that may not have been noted by the patient. We will document all events that may affect blood pressure including medication administration data, therapy sessions, and acute infections.   
  
2012-2016 Study to Evaluate the Efficacy, Safety, and Pharmacokinetics of SUN13837 Injection in Adult Subjects With Acute Spinal Cord Injury – Co-Investigator   
  
The purpose of this research study is to gather scientific information about the effectiveness of the study drug, SUN13837 Injection, when compared with the placebo (inactive substance) in subjects with acute spinal cord injury.   
  
2009-2011 Phase 1 Clinical Assessment of Human Embryonic Stem Cell-Derived Oligodendrocyte Progenitor Cells (AST-OPC1) in Patients with Subacute Thoracic SCI – Principal Investigator (SCVMC)   
  
The purpose of this study is to determine the effect of human embryonic stem cell derived oligodendrocyte progenitor cells on functional recovery after acute spinal cord injury. Embryonic stem cell-derived neural cells have been used by researchers to treat nervous system disorders in animal models. In the case of spinal cord injuries, neural cells derived from animal embryonic stem cells and injected into the spinal cord injury site produced significant recovery of the animal's ability to move and bear weight.   
  
2010-2013 SCI With Brain Injury: Bedside To Bench Modeling For Developing Treatment And Rehabilitation Strategies - Co-Investigator   
  
This DoD funded project proposes the development of an animal model of dual SCI+TBI diagnosis to provide a new tool for studying the biological mechanisms involved and open new directions for therapeutic development. The research from this project may be used to guide the creation of an evidence based guideline for the management of combined SCI and TBI.   
  
2008-2016 Predictors of dysphagia after spinal cord injury – Neurocritical Care Consultant   
  
The purpose of this study is to determine the incidence of and risk factors for dysphagia after SCI. Dysphagia is a serious problem in itself, but can also lead to aspiration pneumonia, malnutrition, dehydration, weight loss, and airway obstruction. The secondary objectives are to assess the accuracy of bedside swallow evaluation compared with videofluoroscopic swallowing evaluation (VFSS) and to assess the time course of recovery of dysphagia in this patient population.   
  
2008-2009 NeuRx DPS RA/4 Diaphragm Pacing Stimulation System, initial review of the Humanitarian Use Device – Principal Investigator   
  
Humanitarian device exemption for use of diaphragmatic pacing device in patient with spinal cord injury. The goal of this project is to liberate patients with high spinal cord injury from ventilator support using a pacemaker which would provide electrical stimuli to drive the paralyzed diaphragm.   
  
2007-2009 Multimodal study of plasticity after spinal cord injury – Co-Principle Investigator   
  
The purpose of this study is to use functional magnetic resonance imaging, transcranial magnetic stimulation and somatosensory evoked potentials to investigate changes that occur in the brain as a result of injury to the spinal cord. Brain mappings in patients with spinal cord injury will be compared with those in healthy volunteers. Changes in the motor cortex will be compared with changes in the sensory cortex.   
  
2006-2008 Impact of mean arterial blood pressure during the first seven days post SCI – Principal Investigator   
  
The purpose of this study was a retrospective review of exposure to hypotension and to determine correlation with neurologic outcomes after Spinal Cord Injury. The results demonstrated a detrimental impact in motor score for exposure to mean arterial blood pressure below 80 mmHg.   
  
  
WORK EXPERIENCE   
  
While at Santa Clara Valley Medical Center   
  
  
2017-Present: Epic SCI Steering Committee, Invited member of international team of clinician researchers tasked with establishing decision rights for the implementation of an universal data set for the collection of FAIR (Findable, Accessible, Interoperable, Re-usable) data for both clinical and research acquired through “natural practice” patterns during the treatment of individuals with Spinal Cord Injury.   
  
2017- Present: Stem Cell Research in Science and Politics Consortium, Invited member of consortium tasked with building bridges across inter-professional practice to forge new partnerships between scientists (Jan Nolta, Tood McDevitt, Hans Keirstead, Michael Lane), Industry (Asterias Biotheraputics, Gaivita Biomedical), NGOs (California Institute for Regenerative Medicine, Texans for Cures, DiDonato Paralysis Foundation) and patient advocates (Bob Klein, Roman Reed, Rich Lahara) with the vision of advancing discoveries of cures for spinal cord injury.   
  
2017- Present: Institutional Review Board Member, The Institutional Review Board (“IRB”) established for Santa Clara Valley Medical Center (“SCVMC”) and its clinics is a duly constituted IRB operating under the name “Research and Human Subjects Review Committee". The primary function of the Research Committee is to ensure the protection of the rights and welfare of human subjects. It is necessary for others who are independent of the research to share the responsibility for determining the standards for ethical conduct of research involving human subjects.   
  
2017-Present: Invited Reviewer for Spinal Cord - Nature   
Responsible for providing expert input and reviewing original manuscripts submitted to Spinal Cord - Nature, as well as recommending that manuscripts be moved to sister journal Spinal Cord Series and Cases.   
  
  
  
  
  
  
  
2016-Present: Board of Directors, California Institute for Medical Research (CIMR)   
Elected Director. The California Institute for Medical Research is a non-profit organization working to further extend the frontiers of our medical knowledge with the aim of creating a healthier future for mankind by bringing the latest technological advances to medicine.   
  
2012-2016: Chief Medical Officer for Silicon Valley Institute for Regenerative Medicine.   
On Sept 25, 2012 the Santa Clara Valley County Board of Supervisors voted unanimously to form a 501.c3 non-profit corporation – the Silicon Valley Institute for Regenerative Medicine (SVIRM) at Santa Clara Valley Medical Center. "The purpose of the corporation is primarily to direct and monitor research and treatment related to regenerative medicine; however, the corporation may also collect grants and/or donations, and take all appropriate actions that are deemed appropriate to further the goals of regenerative medicine." Through a Memorandum of Understanding (MOU) the Institute was started with a staff loan consisting of one half-time Medical Doctor, one Administrative Assistant, one Health Care Program Analyst, one Clinical Research Program Director, and one Nurse Manager and an initial capital infusion for operations of $250,000. In addition SVIRM obtained philanthropic contributions for a matching $250,000. In 2016, the 501.c3 function was incorporated into the research infrastructure of the County of Santa Clara for the purpose of providing extended (15 year) follow-up for patients enrolled in stem cell based clinical trials for acute spinal cord injury.   
  
2012-Present: Stanford Advanced Spinal Cord Injury Medicine Fellowship Site Director.   
The Rehabilitation Trauma Center is a core teaching facility for Stanford residents and fellows in training. Stanford Physical Medicine and Rehabilitation residents learn acute care of patients with catastrophic neurological injuries through consultation in the Rehabilitation Trauma Center. The Stanford/VA Advanced Fellowship Program in Advanced Spinal Cord Injury Medicine features the Center as a core training site for the management of acute neurological injury.   
  
2009-Present: Stanford Partnership for Spinal Cord Injury and Repair   
SCVMC site director and founding partner for the Stanford Partnership for SCI and Repair (SPSC). The core mission of the SPSC is accelerating the development of novel methods of restoring function after SCI. The SPSC is designed to leverage partnerships with industry leaders, scientists, and nationally recognized clinical care centers such as the Rehabilitation Trauma Center at SCVMC. The Stanford Partnership for Spinal Cord Injury and Repair (SPSC) aims to reduce the costs - personal, social, and financial - of spinal cord injury and dysfunction through a formidable network of collaborations employing breakthrough strategies for repair and restoration of function.   
  
2009-Present: Chief of Rehabilitation Trauma Center, Dept of Physical Medicine and Rehabilitation. The Rehabilitation Trauma Center (RTC) is one of the nation’s elite centers for Neurocritical Care of patients after acute spinal cord injury. The RTC specializes in the management of high tetraplegia, traumatic brain injury and other neurological disorders with the goal of freeing patients from ventilator support and controlling autonomics instability in order to maximize patient’s potential for functional recovery.   
  
2006-Present: Director of Medical Consultation, Dept of Physical Medicine and Rehabilitation.   
Provide medical consultation service for Acute Spinal Cord Injury as well as Traumatic Brain Injury units. Principle investigator for clinical research projects in the management of acute spinal cord injury. Clinical instructor for Stanford University Physical Medicine and Rehabilitation Residents. As well as Stanford University Fellows in the fields of Geriatrics and Spinal Cord Injury Medicine.   
  
2010-2013: Stanford Clinical Assistant Professor (Affiliated), Department of Medicine, and the Department of Neurosurgery.   
Attending physician supervising housestaff from Valley Medical Center Internal Medicine as well as Stanford University’s Internal Medicine Residency and Neurosurgery Residency programs. Additional responsibilities include supervision of Stanford Medical Students.   
  
2006-2010: Stanford Clinical Instructor (Affiliated), Department of Medicine.   
Attending physician supervising housestaff from both Valley Medical Center Internal Medicine as well as Stanford University Internal Medicine Residency programs. Additional responsibilities include supervision of Stanford Medical Students including acting as temporary Internal Medicine Clerkship Director (May, October 2007).   
  
2005-2006: Chief Resident, Department of Medicine.   
Provided medical consultation service for general and specialty surgical services. Attending physician Medical Intensive Care Unit and Internal Medicine Wards.   
Led daily didactics with residents, interns and/or Stanford Medical School students.   
Managed 71 resident and intern housestaff physicians   
  
2003-2005: Class President for combined House staff programs.   
Elected twice to represent the Internal Medicine, Obstetrics and Gynecology, and Radiology residents.   
  
While at Stanford University   
  
2001-2002: Teaching Assistant, Continuity of Care Clerkship. Developed curriculum, organized speakers, developed web-based support for clerkship. Stanford University, School of Medicine, CA – Dr. Elizabeth Malcolm (650) 736-1448 (course director) – Can be contacted.   
  
2000-2003: Consultant, World AIDS Foundation:   
• Assisted in authoring original proposal for funding from World AIDS Foundation for evaluation of short course nevirapine in the prevention of Mother-to-Child HIV Transmission in sub-Saharan Africa   
• Developed databases in Access   
• Implemented protocols for rapid HIV testing   
• Standardized procedures between project sites in Zambia and Rwanda   
Emory University, School of Public Health, GA – Dr. Susan Allen   
(404) 727-7883 (principal investigator) – Can be contacted.   
  
1998-1998: Teaching Assistant, Structural Biology 211 – Histology (7 units). Stanford Medical School – Dr. Patricia Cross (650) 723-7361 (course director) – Can be contacted. (Employed one quarter)   
  
1998-2000: Contributing Author, All-Net Pediatrics Intensive Care Textbook. Used Java, HTML, Abode products to author multimedia materials for teaching pediatric intensive care physicians-in-training and in practice. Stanford Medical School – Dr. Joseph DiCarlo (650) 723-5495 (editor-in-chief) – Can be contacted. (Employed during pre-clinical years)   
  
1998-2000: Programmer, Stanford University Medical Media and Information Technology (SUMMIT):   
• Authored “Histology Interactive Tutorial” free standing computer program with over 300 images and 1000 text annotations.   
• Developed computer-based curriculum support for the Stanford Medical School. Including streaming video, searchable electronic presentation of course syllabi, interactive on-line tutorials, cyber-microscopes.   
• Developed computer-based support for Stanford Medical School, Continuing Medical Education On-line.   
• Developed computer-based support for Stanford Medical School, Ambulatory Care Clerkship.   
Stanford University, CA – Jennifer Stringer (650) 723-9688 (supervisor) – Can be contacted. (Employed during pre-clinical years)   
  
While in Sub-Saharan Africa   
  
1996-1997: Consultant regarding rapid HIV testing and same day counseling for Zimbabwe AIDS Prevention Program (ZAPP) and Kara Counseling (Zambian NGO).   
David Katzenstein (650) 725-8304 (Stanford Center for AIDS Research) – Can be contacted. (Contract)   
  
1995-1997   
Project Manager, Project San Francisco:   
• Field manager for U.S. National Institutes of Health HIV research clinic in Lusaka, Zambia and Kigali, Rwanda.   
• Research topic: HIV transmission in heterosexual couples and vertical transmission from mother to child.   
• Managed staff of 60 (counselors, nurses, physicians and ancillary staff) to provide voluntary HIV counseling and testing for over 15,000 individuals during a two-year tenure.   
• Developed HIV voluntary testing and counseling algorithm used in several international AIDS research and counseling centers.   
• With Drs. C. Luo and G.T. Bhat, established Zambian National antenatal HIV counseling and testing protocol.   
Emory University, School of Public Health, GA – Dr. Susan Allen   
(404) 727-7883 (principal investigator) – Can be contacted.   
  
While at University of California, Berkeley   
  
1995-1995; Student Instructor, Student Learning Center (SLC) at UCB. Oversaw all aspects of a 2 unit statistics course, Statistics 98. Cara Stanley (510) 643-8818 (director, SLC) – Can be contacted. (Employed until graduation)   
  
Summer 1993,1994: Teaching Assistant, Summer Bridge at UCB. Introduction to Statistic, Statistics 21 (4 units). Cara Stanley (510) 643-8818 (director, SLC) – Can be contacted. (Employed until graduation)   
  
1994-1995: Senior Tutor, Disabled Student Program (DSP), UCB. Introduction to Physics, Introduction to Chemistry. Deirdre Semoff (510) 642-0518 (learning disabilities specialist) – Can be contacted. (Employed until graduation)   
  
1993-1995: Senior Tutor, Biology Scholars Program (BSP), UCB. Introduction to Biology. John Matsui (510) 643-9768 (director, BSP) – Can be contacted (Employed until graduation)   
  
1988-1995 Individual Tutor, SLC/DSP/BSP, University of California, Berkeley. Graduate epidemiology; upper and lower division mathematics and statistics; introductory biology, chemistry, organic chemistry, and physics. (see references above)   
  
  
HONORS/AWARDS/ACTIVITIES   
2005-2009   
  
2006 Ironman Coach, Team-in-Training IronTeam. Swimming coach for Ironman France 2009, Ironman Lake Placid 2008, Vineman Ironman 2007, Ironman Coeur d’Alene 2006, Ironman Canada 2005   
Third Place, Male Relay, XXVI Alcatraz Triathlon. Member of three person relay, 13 mile bike portion of third place relay team.   
  
2001   
  
  
  
  
2000-2001   
Community Partners Medical Scholar, Stanford Medical School. Financial award ($10,000) to conduct research in collaboration with community partner – Dr. Moses Sinkala (Zambian Ministry of Health) and Dr. Etienne Karita (Rwandan National Reference Laboratory) on prevention of Mother-to-Child transmission of HIV in Zambia and Rwanda.   
Curriculum Reform Committee, Stanford Medical School. Alternate student representative to curriculum reform committee   
1999-Present Admissions Committee, Stanford Medical School. Student interviewer   
  
1999-2000   
Traveling Scholar, Stanford Medical School. Financial award ($10,000) to conduct randomized trial of occlusive dressings vs. silver sulfadiazine in partial thickness pediatric burns. Study conducted in conjunction with the National Children's Hospital, San Jose, Costa Rica   
  
1998-1998   
Foreign Language and Area Scholar, Stanford Medical School. Financial award ($3000) to conduct cultural/language studies in Heredia, Costa Rica   
  
1997-1998   
Medical Scholar, Stanford Medical School. Financial award ($10,000) to conduct study of evaluation of web-based teaching tools for students and residents.   
  
1995   
Departmental Honors, UC. Berkeley – Department of Statistics   
  
1993   
UMAP Mathematical Modeling and Application Competition   
UC Berkeley – Department of Mathematics   
  
1992-1992   
Study abroad, UC Berkeley. Togo West Africa, summer immersion program in French and West African Languages with emphasis on field research   
  
1988-1994   
Chancellor’s Scholar, UC Berkeley. Full need support for tuition plus room and board   
  
1993-1995   
Intramural water polo, UC Berkeley. Championship team, Spring 1994   
  
1974-1987   
Competitive swimming, National Ranking 50yd Backstroke 25th in nation; 50yd Freestyle 108th in nation   
  
  
  
  
  
PRESENTATIONS   
  
02-24-2007 Trauma Symposium, Memorial Modesto, Modesto CA.   
Lecture Title: Acute Spinal Cord Injury Management   
190 attendees.   
  
04-04-2007 Trauma Grand Rounds, Mercy Hospital, Redding California   
Lecture Title: Acute Respiratory Management of the SCI patient.   
20 attendees.   
  
05-24-2007 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Venous Thromboembolism Prophylaxis in High Risk Patients   
50 attendees.   
  
05-25-2007 EBM Lecture Series, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Venous Thromboembolism Prophylaxis in High Risk Patients   
50 attendees.   
  
07-07-2007 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research   
100 attendees.   
  
07-07-2007 Neurotrauma Symposium, UCSF, San Francisco California   
Lecture Title: Acute Management and Challenges of Spinal Cord Injuries: Respiratory Complications   
200 attendees.   
  
09-20-07 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research   
50 attendees.   
  
01-24-08 Neuroscience Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Spinal Cord Injury: Acute Management   
50 attendees.   
  
02-28-08 Spinal Cord Injury Conference, San Jose CA.   
Lecture Title: Acute Respiratory Management of the SCI patient   
200 attendees.   
  
02-28-08 Spinal Cord Injury Conference, San Jose CA.   
Lecture Title: Management of Alcohol Withdrawal   
200 attendees.   
  
02-29-08 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Spinal Cord Injury: Acute Management   
100 attendees.   
  
  
PRESENTATIONS (cont)   
  
05-16-08 Contemporary Forums: Spinal Cord Injury   
Lecture Title: Respiratory Management of the Tetraplegic Patient: Case Studies and Techniques   
100 attendees.   
  
05-17-08 Contemporary Forums: Spinal Cord Injury   
Lecture Title: Melding Rehabilitation into the ICU: Case Scenarios   
400 attendees.   
  
06-21-08 American Spinal Injury Association (ASIA) Annual Conference   
Lecture Title: Impact of Mean Arterial Blood Pressure During the First Seven Days Post SCI   
400 attendees.   
  
06-11-08 Medicine Grand Rounds, Santa Clara Valley Medical Center, Santa Clara CA.   
Lecture Title: Improving Inpatient Anticoagulation at SCVMC - Prevention and Treatment   
100 attendees.   
  
03-13-09 California Society for Respiratory Care Annual Conference. Tahoe CA.   
Lecture Title: Early Vocalization Strategies in Acute Spinal Cord Injury   
200 attendees.   
  
05-19-09 South Bay Chapter of the Rehabilitation Nurses Association. Santa Clara CA.   
Lecture Title: Advances in Stem Cell Research.   
30 attendees.   
  
05-21-09 State Compensation Insurance Fund (California). Vacaville CA.   
Lecture Title: Advances in Stem Cell Research.   
30 attendees.   
  
06-30-10 Trauma Grand Rounds, Kaiser. Sacramento CA.   
Lecture Title: Spinal Cord Injury: Acute Management.   
50 attendees.   
  
07-15-10 Blue Shield California. Statewide Teleconference   
Lecture Title: Advances in Stem Cell Research.   
200 attendees.   
  
02-24-11 Brain Injury Conference: Santa Clara Valley Medical Center   
Lecture Title: TBI/SCI – Bench to Bedside.   
200 attendees.   
  
11-17-12 Stanford Symposium on Neuroregeneration and Repair   
Lecture Title: Needs Assessment for the Field of Spinal Cord Injury Clinical Trials   
200 attendees.   
  
02-05-13 Acute Considerations in Spinal Cord Injury: Santa Clara Valley Medical Center   
Lecture Title: Respiratory Complications of Acute Spinal Cord Injury   
200 attendees.   
  
11-02-13 Stanford 4th Annual Breakthroughs in Neurological Therapies: Restoring Function to the Nervous System   
Lecture Title: Early introduction of Rehabilitation in the ICU   
200 attendees.   
  
04-06-16 Annual Scientific Metting of the American Spinal Injury Association.   
Lecture Title: Spine Symposium Point-Counterpoint Respiratory Management   
100 attendees.   
  
10-05-16 Stanford Physical Medicine and Rehabilitation Round Rounds   
Lecture Title: Use of Stem Cells in Spinal Cord Injury   
50 attendees.   
  
06-09-17 Stem Cell Research in Science and Politics   
Lecture Title: Field Testing Stem Cell Derived Treatments for Acute Spinal Cord Injury   
50 attendees.

***Matthew Davis, MD***  
Tirr Memorial Hermann

**CV:**  
CURRICULUM VITAE   
  
NAME:   
Matthew E. Davis. M.D.   
  
PRESENT TITLE(S):   
  
Attending Physician   
The Institute for Rehabilitation and Research, TIRR Memorial Hermann, Spinal Cord Injury Service   
  
Assistant Professor   
The University of Texas McGovern Medical School at Houston, Department of Physical Medicine and Rehabilitation   
  
  
ADDRESS:   
TIRR Memorial Hermann Hospital, 1333 Moursund St. Suite D-110 Houston, TX 77030   
  
BIRTHDATE:   
May 28, 1975   
  
CITIZENSHIP:   
United States Citizen   
  
UNDERGRADUATE EDUCATION:   
Washington & Lee University, Lexington, VA   
Awarded 1998   
  
GRADUATE EDUCATION:   
Doctor of Medicine, 2003   
University of Texas Southwestern Medical Center, Dallas, TX   
Awarded 2003   
  
POSTGRADUATE TRAINING:   
  
Internship 2003-2004   
Presbyterian Hospital of Dallas, Department of Internal Medicine   
Dallas, TX   
  
Residency 2004-2007   
University of Colorado Health Sciences Center, Department of Physical Medicine & Rehabilitation   
Denver, CO   
  
Spinal Cord Injury Fellowship 2007-2008   
University of Washington, Department of Rehabilitation Medicine   
Seattle, WA   
  
  
ACADEMIC APPOINTMENTS:   
  
Clinical Assistant Professor, 2011-present   
Department of Physical Medicine and Rehabilitation   
The University of Texas Medical School at Houston   
Houston, TX   
  
  
ADMINISTRATIVE AND HOSPITAL APPOINTMENTS:   
  
Attending Physician, 2011-present   
The Institute for Rehabilitation and Research (TIRR) Memorial Hermann, Spinal Cord   
Injury Service   
  
Clinical Medical Director, Spinal Cord Injury Service, 2014-present   
TIRR Memorial Hermann   
  
Respiratory Medical Director, 2014-present   
TIRR Memorial Hermann   
  
President, Medical Staff Services (Chief of Staff), 2014-present   
TIRR Memorial Hermann   
  
  
OTHER PROFESSIONAL EXPERIENCE:   
  
Clinical Assistant Professor, 2008-2011   
Department Rehabilitation Medicine   
The University of Texas Health Science Center at San Antonio   
San Antonio, TX   
  
Consultant, Hollister’s Global Clinical Advisory Board for Continence Care, 04/2014.   
  
  
LICENSURE:   
Texas Medical License # N1302, October 2008   
  
  
CERTIFICATION:   
American Board of Physical Medicine & Rehabilitation 07/2008   
Spinal Cord Injury Medicine 12/2008   
  
  
PROFESSIONAL ORGANIZATIONS:   
American Academy of Physical Medicine & Rehabilitation 07/2006-present   
Academy of Spinal Cord Injury Professionals 07/2007-present   
Chair of the Advocacy Committee 09/2016-present   
American Spinal Injury Association 09/2012-present   
Chair of the Health Policy Advocacy Committee 05/2015-present   
Association of Academic Physiatrists 2013-present   
  
  
HONORS AND AWARDS:   
  
Dean’s Teaching Excellence Award, 2012-2013 and 2013-2014   
  
Craig H. Nielsen Foundation Fellowship grant recipient for the funding of a fellowship position in SCI medicine, 2014-2015 and 2016-2017.   
  
Partners in Engagement Service Award, 2014   
  
Physician of the Year, TIRR Memorial Hermann Partners in Caring, 2014.   
  
UTHealth Clinical Safety and Effectiveness Program, participant and graduate, 2015.   
  
Physician of the Year nominee, TIRR Memorial Hermann Partners in Caring, 2016.   
  
Distinguished Service to Humanity Award, McGovern Medical School and Baylor   
College of Medicine departments of Physical Medicine and Rehabilitation, 2017.   
  
  
SERVICE ON NATIONAL GRANT REVIEW PANELS, STUDY SECTIONS, COMMITTEES:   
  
Item Writer, American Board of PM&R Spinal Cord Injury Subspecialty Exam, 2012- 2014.   
  
Reviewer, American Journal of Physical Medicine and Rehabilitation. 11/2013-present.   
  
Data Monitoring Committee, Department of Veterans Affairs Cooperative Studies Program, “Exoskeletal-Assisted Walking in Persons with SCI: Impact on Quality of Life. 10/1016-present.   
  
Invited presenter and participant, Neilsen Foundation Bowel and Bladder Workshop. Washington, DC, March 2017.   
  
  
SERVICE ON McGOVERN MEDICAL SCHOOL AT UTHEALTH COMMITTEES:   
PM&R Departmental Committees:   
Clinical Competency Committee for SCI Fellowship Evaluations, 2014-present   
Program Evaluation Committee for SCI Fellowship, 2014-present   
  
  
SERVICE ON McGOVERN MEDICAL SCHOOL AFFILIATED HOSPITAL COMMITTEES:   
Quality Council, TIRR Memorial Hermann – chair   
Medical Executive Committee, TIRR Memorial Hermann – chair   
Memorial Hermann Physician Network Clinical Programs Governance Council   
  
  
CURRENT TEACHING RESPONSIBILITIES   
  
Fellowship Director, Spinal Cord Injury   
Physical Medicine and Rehabilitation Department   
University of Texas Health Science Center- McGovern Medical School, Houston   
2011-present   
Responsibilities include: Transition our residency program into the ACGME’s Next Accreditation System (NAS). Authority and Accountability for the operation of the residency program including Self Study Preparation and Site Visit.   
- Coordinate teaching schedule for weekly didactic sessions every year.   
- Provide 3-6 hours of formal lecture each year to SCI fellows.   
- Improved recruitment of fellows, with higher numbers of applications received.   
- Serve as primary mentor for career and academic development of 1-2 fellows per year.   
- Apply for grant funding for 2 fellowship positions on a yearly basis.   
  
Active Teaching Faculty, SCI inpatient service at TIRR Memorial Hermann   
2011-present   
- Bedside teaching of 12 residents per year (1 resident each month), 3-6 medical students each year.   
- Bedside teaching of observers visiting from other countries, including China, New Zealand, Argentina, and Romania.   
- Provide 3-6 hours each year of formal didactic lectures and informal case reviews during residents’ noon conferences.   
  
  
CURRENT GRANT SUPPORT:   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect/TIRR Foundation   
“Effects of Combined Cerebral and Spinal Direct Current Stimulation on Upper Limb Recovery in Incomplete Spinal Cord Injury (tsDCS)”   
$60,000 2014-2016   
  
P.I.: Matthew Davis, M.D.   
Craig H. Neilsen Foundation   
“Spinal Cord Injury Medicine Fellowship”   
$239,668 2016-2017   
  
Co-Investigator, Subcontract: Matthew Davis, M.D.   
National Institute for Disability and Rehabilitation Research (NIDRR)   
“Texas Spinal Cord Injury (SCI) Model Systems, National Spinal Cord Injury Statistical Center” $468,384 2016-present   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Combined peripheral (BreEStim) and central electrical stimulation (tDCS) for neuropathic pain management“   
$ 60,000 2016-2017   
  
  
PAST GRANT SUPPORT:   
  
Co-Investigator, Subcontract: Matthew Davis, M.D.   
National Institute for Disability and Rehabilitation Research (NIDRR)   
“Texas Spinal Cord Injury (SCI) Model Systems Form II Center, National Spinal Cord Injury Statistical Center” $230,000 2011 – 2016   
  
Co-Investigator: Matthew Davis, M.D.   
Department of Defense   
“Responsiveness of a Neuromuscular Recovery Scale for Spinal Cord Injury: Inpatient and Outpatient Rehabilitation”   
$ 10,000 2012-2013   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Effects of combined transcranial direct current stimulation (tDCS)and robotic-assisted training on arm and hand functions in subjects with incomplete spinal cord injury”   
$ 49,900 2012-2014   
  
Co- Investigator, Subcontract: Matthew Davis, M.D.   
Centers of Disease Control and the Christopher and Dana Reeves Foundation   
TIRR Memorial Hermann with University of Louisville, “NeuroRecovery Network (NRN)”   
$100,000 2012 – 2016   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“Breathing-controlled electrical stimulation for neuropathic pain management after spinal cord injury“   
$ 50,000 2013-2014   
  
PI: Matthew Davis, M.D.   
TIRR Rehabilitation Innovation Grant Competition   
“Improving Gait Performance in Individuals with Spinal Cord Injuries: An Intervention Using Robotic Exoskeleton“   
$ 20,000 2013-2015   
  
Co-Investigator: Matthew Davis, M.D.   
Mission Connect   
“A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury”   
$ 104,347 2013-2015   
  
P.I.: Matthew Davis, M.D.   
Craig H. Neilsen Foundation   
“Spinal Cord Injury Medicine Fellowship”   
$77,392 2014-2015   
  
  
PUBLICATIONS:   
A. ABSTRACTS:   
  
\*Escalon, Miguel X., Davis, Matthew E. Conversion Disorder on an Acute Spinal Cord Injury Rehabilitation Unit: A Case Series. (Colleague presented at the American Academy of PM&R Annual Meeting, Atlanta, GA, November 2012).   
  
\*Patel, Monika, Driver, Larry, Davis, Matthew E. Intrathecal Bupivacaine-Induced Chemical Arachnoiditis. (Colleague presented at the American Academy of Pain Medicine annual meeting, Fort Lauderdale, FL, April 2013).   
  
Shuo-Hsiu Chang, PT, PhD, Marcie Kern, PT, Ms, Chris White, PT, Marie Beirne, PT, Matthew Davis, MD, Gerard Francisco, MD. Algorithmic-based evaluation and treatment approach for assisted walking in wearable robotic exoskeletons: theoretical model. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Vanessa Bernal, BS; Matthew E. Davis, MD; Joel E. Frontera, MD; Georgene Hergenroeder; Gerard E. Francisco, MD. A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Shengai Li, Matthew Davis, Joel Frontera, Sheng Li. A novel non-pharmacological intervention – BreEStim for neuropathic pain management after spinal cord injury. (Colleague presented at the Mission Connect Annual Symposium, Houston, TX, December 2014).   
  
Radha Korupolu, MD, Patrick Mullan, DO, Matthew Davis, MD. Voltage-gated potassium channel antibody related myelitis: A Case Report. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Argyrios Stampas, MD, Matthew E Davis, MD, Ryan S Kitagawa, MD, Karl M Schmitt, MD, William H Donovan, MD. Communicating Hydrocephalus Due to Traumatic Lumbar Spine Injury: Case Report and Literature Review. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Matthew Davis, MD and Felicia Skelton, MD. Catheter Valves: An Alternative Method of Managing Neurogenic Bladder After SCI. Academy of Spinal Cord Injury Professionals Annual Conference. New Orleans, LA, September 2015.   
  
Matthew Davis, MD; Lex Frieden, MA, LLD (hon). Addressing Perverse Payment Policy and Treatment Guidelines Through Advocacy. Association of Academic Physiatrists Annual Meeting. San Antonio, TX, March 2015.   
  
Prathap Jayaram, MD; Matthew Davis, MD. Evaluating the Risk for Distal-Spiral Femur Fractures In a Chronic SCI Patient. (Colleague presented at the Association of Academic Physiatrists Annual Meeting. San Antonio, TX, March 2015).   
  
Matthew Davis, MD, Lex Frieden, MA, LLE (hon). Physician Leadership in Advocacy in the Emerging Healthcare Environment. Association of Academic Physiatrists Annual Meeting. Sacramento, CA, February 2016.   
  
Vanessa Bernal, CRRP, Matthew Davis, MD, Joel Frontera, MD, Georgene Hergenroeder, BSN, MHA, RN, CCRC, Gerard Francisco, MD. A Pilot Safety Study of Minocycline for the Treatment of Neuropathic Pain in Traumatic Spinal Cord Injury. Association of Academic Physiatrists Annual Meeting. Sacramento, CA, February 2016.   
  
  
B. REFEREED ORIGINAL ARTICLES IN JOURNALS:   
  
Li S., Davis M., Frontera J, Li S. A novel nonpharmacological intervention – breathing-controlled electrical stimulation for neuropathic pain management after spinal cord injury – a preliminary study. Journal of Pain Research. 2016:9 933–940.   
  
Yozbatiran N., Keser Z., Davis M., Stampas A., O’Malley M.K., Cooper-Hay C., Frontera J., Fregni F., Gerard E. F. Transcranial direct current Stimulation (tDCS) of the Primary Motor Cortex and Robot-assisted Arm Training in Chronic Incomplete Cervical Spinal Cord Injury: A proof of Concept Sham-Randomized Clinical Study. NeuroRehabilitation. 15;39(3)401-411. July 2016.   
  
  
C. BOOK CHAPTERS:   
Davis M, Allam A, Korupolu R. Non-Traumatic Spinal Cord Injury and Dysfunction. In: Mitra R, editors: Principles of Rehabilitation Medicine, McGraw-Hill. (In press).   
  
  
D. OTHER PROFESSIONAL COMMUNICATIONS   
  
PRESENTATIONS/LECTURES:   
  
Getting Your Life Back After SCI: Finding Meaning Through Volunteering, School & Work, SCI Forum, Northwest Regional Spinal Cord Injury System, University of Washington Medical Center, Seattle, WA, February 2008.   
  
Spine 101: Development, Anatomy, Injury and Functional Outcomes with Rehabilitation, PVA Chapter Health Training, Paralyzed Veterans of America, Seattle, WA, May 2008.   
  
Functional Decline in Chronic Spinal Cord Injury. Staff training for the Harlingen Outpatient Clinic, San Antonio, TX, November 2008.   
  
Work After Spinal Cord Injury. Physical Disabilities Workshop, Texas Department of Assistive and Rehabilitative Services, San Antonio, TX, May 2011.   
  
Evaluating the Patient With Spinal Cord Injury. Medical student lecture, University of Texas Health Sciences Center at Houston. Houston, TX, November 2011.   
  
Pressure Ulcers. 46th Comprehensive Review Course in PM&R. Houston, TX, March 2012.   
  
Management of Acute Spinal Cord Injured Patients. Texas Tech University Health Sciences Center, El Paso – Trauma Grand Rounds. El Paso, TX, May 2012.   
  
Evaluating the Patient With Spinal Cord Injury. Medical student lecture, University of Texas Health Sciences Center at Houston. Houston, TX, November 2012.   
  
Treating the Patient With Spinal Cord Injury. Lecture to students at Texas Woman’s University School of Occupational Therapy. Houston, TX, November 2012.   
  
Pressure Ulcers. 47th Comprehensive Review Course in PM&R. Houston, TX, March 2013.   
  
An Overview of the Management of Potential Medical Complications in the Paralyzed Patient. Rehab Solutions Conference. Houston, TX, March 2013.   
  
Medical Management of Early Acute Spinal Cord Injury in Adults. Rio Grande Trauma Conference, El Paso, TX, December 2013.   
  
The Roles of the Physiatrist in the Acute Care Setting and Acute Rehab Setting. Rio Grande Trauma Conference, El Paso, TX, December 2013.   
  
Aging in Spinal Cord Injury. Rehab Solutions Conference. Houston, TX. February 2014.   
  
Pressure Ulcers. 48th Comprehensive Review Course in PM&R. Houston, TX, March 2014.   
  
Expected Outcomes following Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Secondary Complications of Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Pain in Spinal Cord Injury. Advancing Wellness and Independence in SCI Conference. Houston, TX, June 2014.   
  
Urinary Tract Infections, Renal Failure, and Public Policy. Association of SCI Professionals Annual Conference. St. Louis, MO, September 2014.   
  
Accessibility in Health Care for People with Disabilities. American Congress of Rehabilitation Medicine Annual Conference. Dallas, TX, October 2015.   
  
Quality, Evidence, and Advocacy in the New Era of Healthcare. American Congress of Rehabilitation Medicine Annual Conference. Dallas, TX, October 2015.   
  
Pressure Ulcers. 49th Comprehensive Review Course in PM&R. Houston, TX, March 2015.   
  
Pressure Ulcers. 50th Comprehensive Review Course in PM&R. Houston, TX, March 2016.   
  
Neurogenic Bladder. American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
The Next Step: What Happens After Acute Care? American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
Advocacy 101. American Spinal Injury Association Annual Scientific Meeting. Philadelphia, PA, May 2016.   
  
Success in Advocacy: Where We Are and Where We Are Going. Association of SCI Professionals Annual Conference. Nashville, TN, September 2016.   
  
Advocacy for Successful Funding and Policy Making in Patient Care. American Spinal Injury Association Annual Scientific Meeting. Albuquerque, NM, April 2017.   
  
Advocacy Case Series: Complex Durable Medical Equipment Needs of Spinal Cord Injury Patients for Prevention of Complications. Association of SCI Professionals Annual Conference. Denver, CO, September 2017.   
  
Mechanical Ventilation in Spinal Cord Injury Patients. Grand Rounds, Pulmonary and Critical Care Medicine, McGovern Medical School. Houston, TX, September 2017.

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**Ouch… that hurts!! Understanding, assessing, and treating pain in youth with spinal cord injury using a multidisciplinary approach**

Thursday, May 03, 2018 03:45 PM - 04:45 PM

***Heather Russell, PhD***  
Shriners Hospitals for Children- Philadelphia

**CV:**  
BIOGRAPHICAL SKETCH   
Provide the following information for the Senior/key personnel and other significant contributors.   
Follow this format for each person. DO NOT EXCEED FIVE PAGES.   
NAME: Heather (Mitchell) Russell, Ph.D.   
INSTITUTION: Shriners Hospitals for Children, Philadelphia   
POSITION TITLE: Pediatric Licensed Psychologist   
EDUCATION/TRAINING:   
INSTITUTION AND LOCATION DEGREE   
(if applicable)   
Completion Date   
MM/YYYY   
FIELD OF STUDY   
  
  
Smith College, Northampton, MA AB 5/1991 Biology   
La Salle University, Philadelphia, PA MA 5/1995 Psychology   
duPont Hospital for Children, Wilmington, DE   
Temple University, Philadelphia, PA Intern   
Ph.D. 7/1998   
8/2000 Psychology   
Psychology   
Children’s Hospital of Philadelphia, PA Fellow 2000-2001 Fellow   
  
NOTE: The Biographical Sketch may not exceed five pages. Follow the formats and instructions below.   
A. Personal Statement   
I have had extensive training and experience in both the clinical and research realms within the field of pediatric psychology. In an effort to disseminate my research findings, I have published over 25 articles in peer reviewed journals and presented over 50 times at national meetings on this topic. Specifically, my expertise is in working with children with physical disabilities or chronic conditions and their families in order to better understand and facilitate the coping and adjustment processes with the ultimate goal of optimizing psychosocial outcomes. I also have extensive involvement in the professional realm where I serve as the President of the Psychology, Social Work and Counseling section of the Academy of Spinal Cord Injury Professionals (PSWC/ASCIP), in addition to serving as the Vice-President of the Governance Board (GB/ASICP), and as a long-term member of the PSWC Clinical Practice Committee. In the American Spinal Injury Association, I serve as a member of the Program Committee (Past Chair 2015-2017) and as a member of the Pediatric Committee. Lastly, I was honored to be named the 2014 recipient of the Clinical Practice Award for PSWC/ASCIP and to receive a Leadership Service Award in 2017 from ASIA. All of these clinical, research and professional experiences have come together to make me a well-rounded professional.   
B. Positions and Honors   
  
Positions and Employment   
11/1991 - 09/2001 Research Technician III, Genetics and Molecular Biology, Children's Hospital of Philadelphia   
08/1997 - 07/1998 Psychology Predoctoral Intern, Behavioral Health, duPont Hospital for Children   
08/2000 - 07/2001 Postdoctoral Fellow, Psychology, Children's Hospital of Philadelphia   
07/2001 - Current Clinical Psychologist, Medical Staff, Shriners Hospitals for Children, Philadelphia   
08/2001 - 09/2002 Research Psychologist, National Human Genome Research Institute, National Institutes of Health   
03/2005 - 01/2007 Director, Social Services, Shriners Hospitals for Children, Philadelphia   
06/2006 - 11/2007 Clinical Psychologist, Medical Staff, Temple University Children's Medical Center   
  
Honors   
2001 – Current PA Licensed Psychologist   
2004 – Current Scientific Staff, Shriners Hospitals for Children, Philadelphia   
2005 – Current Advisory Board, Center for Pediatric Traumatic Stress, CHOP, Philadelphia   
2006 – Current Clinical Assistant Professor (Adjunct), Temple University, Philadelphia   
2007 – 2017 Member, Clinical Practice Committee, ASCIP/PSW (Chair 2009-2012; Board Liaison 2012-2017)   
2009 – Current Member, Pediatric Committee, ASIA   
2010 – Current Founding Member, Academy Clinical Practice Committee, ASCIP/PSW (Chair 2012-2015; Board Liaison 2015-2017)   
2010 – Current Member, Program Committee, ASIA (Co-Chair 2015-2017)   
2012 – Current Member, Board of Directors, ASCIP/PSW (Vice President 2013-2015; President 2015-current)   
2014 Clinical Performance Award, ASCIP/PSW   
2015 – Current Member, Governance Board ASCIP (Vice President 2017 – current)   
2017 Leadership Service Award, ASIA   
C. Contribution to Science   
I. The goal of rehabilitation of individuals with pediatric-onset SCI is that they return home and function independently, participate fully in their community, remain free from secondary health conditions, and experience a satisfying life. Because of a lack of published information on the natural history of pediatric-onset SCI, I have been actively involved over the past 10 ½ years, in a prospective multisite study on psychosocial outcomes and secondary health conditions in youth with SCI and the inter-relationships between caregivers and youth with SCI. The psychosocial outcomes that were studied encompass all spheres of life incorporating the ICF model, including secondary health conditions, participation, coping, quality of life, and personal and environmental contextual factors. Findings from this project have improved the rehabilitative care of youth with SCI and have resulted in the development of a caregiver intervention. This project has enrolled approximately 600 youth with 1500 interviews. Dr. Caroline Anderson and Dr. Lawrence Vogel were overall Co-Principal Investigators beginning in 2005 with Dr. Erin Kelly assuming the role as overall Principal Investigator in 2013. I remain deeply committed to this project as the lead Investigator of the Philadelphia site since the beginning of the study. This project has resulted in the publication of almost 20 peer-reviewed manuscripts, one book chapter, and over 70 platform presentations and posters.   
  
1. Anderson CJ, Kelly E, Klaas SJ, Russell H, Daharsh E, Gorzkowski J, Vogel LC. (2009). Anxiety and depression in children and adolescents with spinal cord injuries. Dev Med Child Neurol; 51:826-832. PMID: 19416340.   
2. Kelly EH, Anderson CJ, Garma S, Russell HF, Klaas SJ, Gorzkowski JA, Vogel LC. (2011). Relationships between the Psychological Characteristics of Youth with Spinal Cord Injury and their Primary Caregivers. Spinal Cord; 49:200-205 (doi: 10.1038/sc.2010.78).   
3. Smith, T., Russell, H. F., Kelly, E. H., Mulcahey, M. J., Betz, R. R., & Vogel, L. C. (2013). Examination and measurement of coping among adolescents with spinal cord injury. Spinal Cord, 51, 710-714. doi: 10.1038/sc.2013.65.   
4. Russell, H.F., January, A. M., Kelly, E.H., Mulcahey, M.J. Betz, R.R. & Vogel, L.C. (2015). Patterns of Coping Strategy Use and Relationships with Psychosocial Outcomes in Adolescents with Spinal Cord Injury. Journal of Pediatric Psychology, 40(5), 535-43. doi: 10.1093/jpepsy/jsu159.   
  
II. Researchers have made great progress in their understanding of human genetics and how specific genes may interact with the environment to result in various diseases and developmental disabilities. I worked in the laboratories of Dr. Maximilian Muenke and Dr. Deborah Driscoll at the Children’s Hospital of Philadelphia, Philadelphia, PA from 1991-2001 and at the National Human Genome Institute, National Institutes of Health, Baltimore, MD from 2001-2004 to identify such genes as they apply to conditions including Holoprosencephaly, DiGeorge Syndrome, and Attention Deficit Hyperactivity Disorder (ADHD). These labs, during the course of my work there, identified the gene for Holoprosencephaly, found a significantly increased prevalence of ADHD in girls with Turner Syndrome when compared with girls in the general population, and identified a number of “hot spots” and candidate genes which are likely contributing to the diagnosis of ADHD. All of these findings help to inform clinicians in the fields of Genetics, Genetic Counseling, Endocrinology and Pediatrics to better serve and advise their patients.   
  
1. Belloni, E, Muenke, M, Roessler, E, Mitchell, HF, Siegel-Bartlet, J, Frumpkin, A, Traverso, G, Donis-Keller, H, Helms, AV, Heng, HHA, Koop, B, Martindale, D, Rommens, JM, Tsui, LC & Scherer, SW. (1996). Identification of Sonic Hedgehog as a candidate gene for holoprosecephaly. Nature Genetics, 14, 353 - 356.   
2. Russell HF, Wallis, D, Mazzocco, MM, Moshang, T, Zackai, E, Zinn, AR, Ross, JL & Muenke, M. (2006). Increased prevalence of ADHD in Turner Syndrome with no evidence of imprinting effects. Journal of Pediatric Psychology, 31, 945-955.   
3. Acosta, MT, Castellanos, FX, Bolton, KL, Balog, JZ, Eagen, P, Nee, L, Jones, J, Palacio, L, Sarampote, C, Russell HF, Berg, K, Arcos-Burgos, M & Muenke, M. (2008). Latent class subtyping of Attention-Deficit/Hyperactivity Disorder and comorbid conditions. Journal of the American Academy of Child and Adolescent Psychiatry, 47, 797 - 807.   
4. Wallis, D, Russell HF & Muenke, M. (2008). Genetics and Attention-Deficit/Hyperactivity Disorder: A literature review. Journal of Pediatric Psychology, 33, 1085 – 1099.   
D. Research Support   
Completed Research Support:   
Russell (Site-PI) 1/2012 - 12/2014   
Shriners Hospitals for Children   
Title: Relationship between psychosocial factors of youth with spinal cord injuries and their caregivers.   
  
The overall goal of this research was to better understand the relationships between psychosocial factors including anxiety, depression, problem solving, quality of life, participation, family stress and dynamics of youth with spinal cord injuries and their caregivers. The responsibilities of this clinician were to oversee the entire study in Philadelphia including IRB paperwork, study design, data collection, data entry, data integrity, data interpretation, and data dissemination.

***Kim Scharff, PT, DPT, PCS***  
Shriners Hospitals for Children- Philadelphia

**CV:**  
Kimberly A. Scharff, PT, DPT, PCS is a physical therapist at Shriners Hospitals for Children – Philadelphia. She received a Bachelor of Science degree in Biology from Villanova University, a Master of Education degree from Cabrini College, and a Doctorate of Physical Therapy degree from Drexel University in 2006. She is a Pediatric Clinical Specialist as designated by the American Physical Therapy Association. She has ten years of experience evaluating and treating children and youth with spinal cord injuries. She is the current co-chair of the ASIA Pediatrics Committee.   
  
  
CV info:   
  
Current Employment   
Shriners Hospitals for Children-Philadelphia   
Physical Therapist (December 2007 to present)   
  
Harcum College PTA Program, Bryn Mawr, PA   
Guest Lecturer, Pediatrics Modules, 2008-present   
  
Licensures & Certifications   
Licensed Physical Therapist, Commonwealth of Pennsylvania, South Carolina   
APTA Pediatric Clinical Specialist (2012)   
Certified Child Passenger Safety Technician, 2009-present   
APTA Advanced Credentialed Clinical Instructor   
  
Professional Organizations   
Member, Amercian Spinal Injury Asociation   
Co-Chair of the ASIA Pedicatrics Committee (current)   
  
Education   
Drexel University, Philadelphia, PA   
Doctorate of Physical Therapy, May 2006   
  
Cabrini College, Radnor, PA   
Master of Education, August 2000   
  
Villanova University, Villanova, PA   
Bachelor of Science in Biology, May 1996   
  
Publications   
Johnson DR, Scharff KA. Spinal Cord Injury. In: Pelletier E (ed), Jobst EE (Series ed). Physical Therapy Case Files: Pediatrics. New York, NY: McGraw-Hill, 2015.

***Madeleine Pittman, MS, OTR/L, CKTP***  
Shriners Hospitals for Children- Philadelphia

**CV:**  
Madeleine Pittman, MS, OTR/L, CKTP is an occupational therapist at Shriners Hospitals for Children in Philadelphia. She received a Bachelors of Science in Exercise Physiology and a Masters of Science in Recreation, Parks and Tourism from West Virginia University, and a Masters of Science in Occupational Therapy from Philadelphia University in 2013. She is a Certified Kinesio Tape Practitioner and has three years experience evaluating and treating children with spinal cord injuries.   
  
CV info:   
  
Current Employment   
Shriners Hospitals for Children-Philadelphia   
Occupational Therapist (October 2014 to present)   
  
Licensures & Certifications   
Licensed Occupational Therapist, Commonwealth of Pennsylvania, South Carolina   
Certified Kinesio Taping Practitioner (2016)   
  
Professional Organizations   
Member, American Occupational Therapy Association   
Member, American Society of Hand Therapists   
  
Education   
Philadelphia University, Philadelphia, PA   
Masters of Science in Occupational Therapy, May 2013   
  
West Virginia University, Morgantown, WV   
Masters of Science in Recreation, Parks and Tourism Resources, May 2010   
  
West Virginia University, Morgantown, WV   
Bachelor of Science in Exercise Physiology, May 2008

***Bethany Lipa, MD***  
Shriners Hospitals for Children- Philadelphia

**CV:**  
BIOGRAPHICAL SKETCH   
  
  
NAME: Bethany Lipa, MD   
INSTITUTION: Shriners Hospital for Children, Philadelphia   
POSITION TITLE: Medical Director for Rehabilitation   
EDUCATION/TRAINING   
INSTITUTION AND LOCATION DEGREE   
Completion Date   
FIELD OF STUDY   
  
State University of New York, Geneseo NY BS 05/2003 Biochemistry   
University of Buffalo, Buffalo NY MD 05/2007 Medicine   
UMDNJ/Rutgers University, Newark NJ Internship 06/2008 Internal Medicine   
UMDNJ/Rutgers University, Newark NJ Residency 06/2011 Physical Medicine and Rehabilitation   
UC Davis Medical Center, Sacramento CA   
Shriners Hospitals for Children, Northern California Fellowship 07/2012 Neuromuscular and Electrodiagnostic Medicine   
UC Davis Medical Center, Sacramento, CA   
Fellowship 08/2013 Neuromuscular Medicine Postdoctoral Fellowship Clinical Translational Research; (NIDRR Advanced Rehabilitation Research Training Grant)   
  
  
A. Personal Statement   
I have cared for children and young adults with mobility impairment and physical limitations associated with neuromuscular conditions for the past six years. My clinical focus has been on improving mobility, participation and quality of life while minimizing medical complications caused by complex neuromuscular disorders. My clinical research interest include predicting neuro recovery through early electrodiagnostic screening after brachial plexus birth palsy, improving mobility and trunk strength through activity based rehabilitation after spinal cord injury, and improving individualized goal attainment by treating lower limb spasticity with botulinum toxin injections.   
I also have a passion for caring for children and youth with spinal cord injury. At Shriners Hospitals for Children Philadelphia, I work regularly with children and youth up to 21 years of age on our inpatient rehabilitation unit and outpatient clinics. I have seen first-hand the critical importance of treating pain with a multidisciplinary team approach to improve outcomes, participation and avoid long-term complications.   
B. Positions and Honors   
  
Positions:   
2012-2013 Neuromuscular Medicine Postdoctoral Fellowship Clinical Translational Research;   
(NIDRR Advanced Rehabilitation Research Training Grant)   
2013 - Present Shriners Hospitals for Children, Philadelphia, PA, Medical Director for Rehabilitation   
2016 – Present Co-chair Pediatric Committee American Spinal Injury Association   
  
  
  
Honors:   
June 2011 Areti Award for Professionalism and Altruism   
May 2007 Bernard H. Smith Award in Clinical Neurology   
Apr 2006 Gold Humanism Honor Society   
Mar 2006 Junior Alpha Omega Alpha Medical Honor Society   
Mar 2003 American Institute of Chemists Foundation Biochemistry Student Award   
May 2002 Council on Undergraduate Research Fellowship Award   
  
  
C. Publications   
  
ω Bach J, Mahajan K, Lipa B, Saporito L, Goncalves M, Komaroff E. Lung insufflation capacity in neuromuscular disease: American Journal of Physical Medicine and Rehabilitation, 2008 Sept; 87(9): 720-5.   
ω Lipa B, Han J: Electrodiagnosis in Neuromuscular Diseases. Physical Medicine and Rehabilitation Clinics of North America 2012.   
ω Hagerman and Hendren. Treatment of Neurodevelopmental Disorders, Chapter 13 Muscular Dystrophies: Diagnosis and New Treatments (2014).   
ω Junck A, Escobedo E, Lipa B, et al. Reliability Assessment of Various Ultrasonographic Techniques for Evaluating Carpal Tunnel Syndrome: J Ultrasound Med. 2015 Nov; 34(11): 2077-88.   
ω Humbert S, Lipa B, Williams L, Poltavskiy E, Bang H, Anthonisen C, Han J. Inter-rater reliability of median nerve conduction studies for Carpal Tunnel Syndrome. (in preparation)   
ω Hwang S, Charles E, Bonnar M, Keeny H, Lipa B, Hwang S. The Role of Age and Initial Deformation on Final Cranial Asymmetry in Infants with Plagiocephaly Treated with Helmet Therapy. Pediatric Neurosurgery (2017).

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**Yoga: A Holistic Approach to Treating Multidimensional Pain After Spinal Cord Injury/Disorder (SCI/D)**

Thursday, May 03, 2018 04:45 PM - 05:15 PM

***Keara McNair, MS, OTR/L, BCPR, RYT***  
Kessler Institute for Rehabilitation

**CV:**  
Keara Savage McNair, OTR/L, BCPR   
13511 Cronston Avenue, Belle Harbor, NY 11694 kmsavage@selectmedical.com 917-578-0598   
  
PROFESSIONAL EXPERIENCE   
Kessler Institute for Rehabilitation West Orange, NJ   
Clinical Specialist Occupational Therapist July 2017- Present   
Senior Occupational Therapist July 2015- June 2017   
Proficient Occupational Therapist July 2014- June 2015   
Staff Occupational Therapist January 2014- June 2014   
  
Medstar National Rehabilitation Hospital Washington, DC   
Staff Occupational Therapist July 2011- July 2013   
  
PROFESSIONAL MEMBERSHIP   
Academy of Spinal Cord Injury Professionals, Therapy Leadership Council, Member since 2015   
American Spinal Injury Association, Member since 2015   
American Occupational Therapy Association Member since 2008   
  
PUBLICATIONS   
McNair, K., Lutjen, M., Langhamer, K., Nieves, J., & Hreha, K. (2017). Comprehensive, Technology- Based, Team Approach for a Patient with Locked- In Syndrome: A   
Case Report of Improved Function & Quality of Life. Assistive Technology. Published Online June 27, 2017. doi: 10.1080/10400435.2017.135052   
Spinal Cord Injury and Neurological Deficits: Innovative Treatments for   
Incomplete Tetraplegia. ADVANCE for Physical Therapy, October 2016 & ADVANCE for Occupational Therapy, January 2017.   
  
PRESENTATIONS   
Integrating Consumer- Based Technology into An EADL Program. ASCIP Educational   
Conference & Expo. Denver, Colorado, September 2017.   
Electronic Aids to Daily Living. Seton Hall University School of Health and Medical Sciences:   
Occupational Therapy Program; South Orange, NJ; July 2017.   
SCI Clinical Education Series: Bladder Management. Kessler Institute   
for Rehabilitation (West Orange), August 2016.   
SCI Clinical Education Series: Upper Extremity Management. Kessler Institute   
for Rehabilitation (West Orange), May 2016.   
Comprehensive, Technology- Based, Team Approach for a   
Patient with Locked- In Syndrome: A Case Report of Improved Function & Quality of Life. RESNA/ NCART National Conference Poster Sessions, Arlington, VA, July 2016.   
Comprehensive Interdisciplinary Upper Extremity Evaluation & Treatment   
for Tetraplegia: Acute Rehabilitation Evaluation & Treatment Techniques (120- Minute Lecture & 90- Minute Lab) American Spinal Injury Association Annual Scientific Meeting, Education Session, Philadelphia, PA, April 2016.   
  
  
PROFESSIONAL DEVELOPMENT   
ASCIP Educational Conference & Expo: Rocky Mountain High Expectations for SCI. Denver, Colorado, September 2017.   
Evidence- Based Cancer Rehabilitation Resources and Its Role in Cancer Survivorship; West Orange, NJ, April 2017.   
RESNA/NCART National Conference: Promoting Access to Assistive Technology, Arlington, VA July 2016.   
Webinar: Addressing Challenging Needs: Accessible and Affortable Technology for Those with Cervical Injuries, ASCIP, June 2016.   
Webinar: Keeping Current with EADLs, RIC, May 2016.   
ASIA Annual Scientific Meeting, Philadelphia, PA, April 2016.   
The Complex Shoulder: An Evidence Based Approach for Evaluation and Treatment, Alexandria, VA, September 2015.   
Bioness for the Upper Extremity; West Orange, NJ, December 2014.   
Evidence- Based Physical Agents: Application & Practice; West Orange, NJ, November 2014.   
Restorative Therapies R300 Upper Extremity Ergometer; West Orange, NJ, October 2014.   
Dynamic Taping; Washington, DC, January 2013.   
Neurostructural Taping Technique; Alexandria, VA, October 2012.   
Interdisciplinary Spinal Cord Course, Rehabilitation Institute of Chicago, Chicago, IL   
June 2012.   
  
LICENSURE/ CERTIFICATION   
AOTA Board Certification: Physical Rehabilitation; May 2017   
Registered Yoga Teacher; Integral Yoga 200- hour Basic Teacher Training; July 2013   
Licensed Occupational Therapist in New York State (License # 018122-1)   
Licensed Occupational Therapist in New Jersey (License # 46TR00637300)

***Karyn Baig, PT, DPT, RYT***  
Kessler Institute for Rehabilitation

**CV:**  
KARYN A. BAIG, PT, DPT, CYT   
706 Valley Road Apt 2 ▪ Upper Montclair, NJ 07043 ▪ 949.278.9251 ▪ Email: karynbaig@hotmail.com   
  
CLINICAL SPECIALIST PHYSICAL THERAPIST, SPINAL CORD INJURY   
Highly dynamic, results-driven clinician with a solid track record of success in providing exceptional patient care and customer service to achieve optimal outcomes. Excels in program development, including conception, execution and evolution to ensure patients receive services that consistently exceed expectations. Dedicated, forward-thinking leader who promotes an energetic, productive culture, utilizing a creative approach to provide direct mentorship to therapy team to ensure staff development.   
  
PROFESSIONAL EXPERIENCE   
9/2008- KESSLER INSTITUTE FOR REHABILITATION, West Orange, NJ   
present 6/2014-present Clinical Specialist Physical Therapist   
6/2011-6/2014 Senior Physical Therapist   
6/2010-6/2011 Proficient Physical Therapist   
9/2008-6/2010 Staff Physical Therapist   
  
Spinal Cord Injury Outpatient Rehabilitation: 8/2016-present   
Perform evaluations, develop, implement and progress plans of care, as well as coordinate discharge planning and   
referrals for continued care for individuals with acute and chronic spinal cord injuries/disorders.   
• Drive neuromuscular recovery, minimize risk of secondary conditions and promote wellness through tailored, impairment-based treatment strategies utilizing innovative technologies including the RT300 FES cycle and SAGE stimulator; ARMEO Lokomat; Bioness L300/300+; Galileo therapy and TheraStride systems   
• Utilize NeuroRecovery Network principles, providing locomotor training for individuals involved in research studies on neuromuscular recovery   
• Play pivotal role in promoting recovery, ongoing health/wellness, and community reintegration by attending MD appointments with patients, providing education on peer support/educational/recreational opportunities, working closely with and referring individuals to the DVR and peer programs, and serving as an administrator via social media outlets delivering information on said opportunities to the broader SCI community   
• Expand and improve outpatient attendance/participation in the Kessler SCI Peer Program through compiling a comprehensive contact database of individuals with SCI, promoting events and meetings via social media, email blasts, and word-of-mouth, developing social media sites for greater outreach, and retaining speakers/panel members for peer support meetings   
• Develop and lead adaptive chair yoga class for the Amputee Support Group on the topic of “self-love” to promote ongoing health and wellness in this community   
• Promote self-advocacy and continued fitness for the MS Wellness Group by delivering adaptive yoga sessions to small groups of women in all stages of Multiple Sclerosis   
• Provide mentorship to the Neuroresident, affiliating students, and groups of graduate students in the clinical treatment of individuals with spinal cord injuries/disorders   
• Assist with patient transitions from the inpatient to outpatient setting through Ambassador Program orientation   
• Presented journal article to Select Medical Manual Therapy journal club on utilizing Pilates for lumbar stabilization   
  
Spinal Cord Injury Inpatient Rehabilitation: 4/2012-8/2016, 10/2010-4/2011, and 9/2008-10/2009   
Performed evaluations and developed, implemented, and progressed plans of care for adolescent through geriatric patients with a variety of diagnoses including: ventilator and non-ventilator dependent complete/incomplete tetraplegia and paraplegia, Transverse Myelitis, Guillian-Barre Syndrome, ALS, cancers of the spinal cord and spinal surgeries   
• Coordinated discharge planning including ordering appropriate assistive devices, developing individualized home exercise programs, and conducting family training sessions   
• Implemented a comprehensive, evidence-based fitness and wellness program, offering daily group sessions focused on improving cardiovascular endurance, flexibility, balance and strength through a variety of interventions including adaptive yoga, resistance training, aerobic activity, adaptive sport, and nutrition education   
• Selected to lead Arm Hand Motor Training specialty program with the role involving patient recruitment/selection, completing shoulder evaluations, and utilizing varied interventions/modalities to improve functional outcomes   
• Led highly productive body weight support locomotor training program including candidate recruitment, provision of manual facilitation and staff mentoring resulting in greater utilization of this modality   
• Completed video case study project compiling video footage of specific neurological diagnoses/demographics/functional levels performing tasks for educational and marketing purposes   
• Effectively served as team leader during team conferences, maintaining role of liaison between MD and therapy team, relaying crucial patient information to improve efficiency of patient care and discharge planning   
• Delivered successful mentorship environment including piloting inaugural 2:1 instructor to student ratio, as Clinical Instructor   
• Facilitated physical therapy graduate student labs on treatment interventions and functional mobility strategies   
• Interviewed potential PT candidates, providing feedback to Director of Rehabilitation to assist with hiring decisions   
• Mentored Neuroresident in the treatment of individuals with spinal cord injuries, as Neuroresidency Program Faculty Member   
• Served on FIM Task force acting as a resource to staff to improve accuracy of scoring in accordance with standards   
• Served on Group Task Force to develop a framework for successful group model implementation including providing descriptors, inclusion/exclusion criterion, and rationale for group treatment as well as mentorship to staff for successful integration   
• Participated in Focus Groups for Kessler Foundation providing crucial feedback to assist with the development caregiver education tools and clinical outcome measures   
  
Brain Injury Rehabilitation: 4/2011-4/2012   
Performed evaluations and developed, implemented, and progressed plans of care for patients with diagnoses including CVA, SDH, ICH, SAH, and neoplasm at multiple functional and cognitive levels ranging from minimally conscious to functionally independent   
• Served as lead for specialty programs including Advanced Mobility Group, Bioness L300, and body weight support locomotor training which resulted in greater functional outcomes   
• Selected as physical therapy representative for the Arm Hand Motor Training Team receiving comprehensive training on Bioness H200, ARMEO Spring, and Upper Extremity RTI modalities   
• Mentored new employee, guiding therapist through operational duties and patient interventions to ensure successful transition into full-time physical therapist role   
  
Stroke, Neurological, Amputee, & General Rehabilitation: 10/2009-10/2010   
Performed evaluations and developed, implemented, and progressed plans of care for patients with diagnoses of lower extremity amputation, CVA, MS, hip and knee replacement, laminectomy and general debility   
• Served as Amputee Team physical therapy lead facilitating weekly amputee support group, attending weekly MD team meetings relaying, attending weekly outpatient amputee clinic, administering AmpPro research tool and playing an integral role in the CARF Amputee accreditation process   
• Led body weight support locomotor training group for patients with CVA, resulting in documented improvements in gait velocity and mechanics   
• Managed and maintained an accurate, current schedule to meet insurance regulations on a consistent basis   
• Provided staff in-services on topics including falls prevention and balance in the geriatric population; treatment of the “stiff” knee post total knee replacement; and innovative equipment in the rehabilitation of amputees   
• Mentored affiliating student in role of Clinical Instructor   
  
1/2015-Present COLUMBIA UNIVERSITY, New York City, NY   
Lab Instructor and Guest Lecturer   
Facilitate small groups of physical therapy graduate students, providing education and hands-on training in the areas of transfers, mat mobility skills, respiratory interventions, and gait training for individuals with spinal cord injuries and lecture large groups of graduate students on the respiratory management of individuals with spinal cord injury.   
  
EDUCATION   
5/2008 Columbia University, College of Physicians and Surgeons, New York City, NY Doctor of Physical Therapy   
  
9/2003- Orange Coast College, Costa Mesa, CA   
5/2005 Physical Therapy Prerequisites   
  
5/1998 Cornell University, Ithaca, NY   
Bachelor of Science in Communication, Concentration in Business Management Dean’s List   
  
  
CLINICAL AFFILIATION EXPERIENCE   
3/2008- Kessler Institute for Rehabilitation, West Orange, NJ   
5/2008 Rotations: Spinal Cord Injury Rehabilitation (3-5/2008) and General Rehabilitation (1-3/2008)   
  
5/2007- Rusk Institute for Rehabilitation Medicine, New York City, NY   
8/2007 Rotation: Acute Cardiopulmonary Care & Inpatient Cardiac Rehabilitation   
  
CONTINUING EDUCATION & TRAINING   
3/2017 NeuroRTI Locomotor Training: Principles and Practice   
11/2016 Myofascial Release: From Surface to the Depths   
1/21/16 Physical Therapy Ethics IV   
12/2015 YogiAnatomy: Yoga, A New Therapeutic Exercise   
4/21/2015 Bioness: Ness L300 Plus System Training   
2/9/2015 Emotional Intelligence and Leadership   
11/2014 Treatment of the Neurologic Upper Extremity   
6/2014 Balance Assessment and Treatment   
11/2013 Doing Well by Doing Right: Ethics and Jurisprudence   
6/2013 First Annual KIR Rehab Leadership Institute Conference (Inpatient)   
6/2013 Yoga Biomechanics and Applications for Maximizing Rehab   
1/2012 Brain Injury Summit 2012   
11/2011 Gait Biomechanics and Orthotic Applications   
3/2011 Advances in Neuroplasticity: Leading the Future of Neurorehabilitation   
1/2011 Ethics and Jurisprudence   
12/2010 KinesioTaping-KT1/KT2   
5/2010 National Amputee Golf Association “First Swing/Learn to Golf” Seminar & Clinic   
1/20/2010 Bioness: The Ness L300 Training   
10/2009 Intro to NDT: Achieving Functional Outcomes for Adults with Hemiplegia Using the Principles of NDT   
10/2009 Getting Results Faster when Using NDT to Increase Challenge of the LE’s and to Improve Gait   
6/2009 Geriatric Neurology: Falls, Prevention and Balance   
  
NATIONAL PRESENTATIONS & PUBLICATIONS   
4/2017 ASIA 2017, Albuquerque, NM, Presenter   
• Presentation and Lab: Transitioning Yoga from Inpatients to Outpatients to Lifelong Health & Wellness   
4/2016 ASIA 2016, Philadelphia, PA, Presenter   
• Presentation and Lab (with Lab Manual): Integrating Yoga into a Plan of Care for Individuals with Spinal Cord Injury   
12/2015 Grand Rounds, Kessler Institute for Rehabilitation, West Orange, NJ, Presenter   
• Oral Presentation: Integrating Yoga into a Plan of Care for Individuals with Spinal Cord Injury   
9/2015 ASCIP 2015 Educational Conference & Expo, New Orleans, LA, Presenter   
• Oral Presentation: Integrating Yoga into a Plan of Care for Individuals with Spinal Cord Injury   
4/2013 Advance PT Magazine   
• From Hospital to Home: Physical Therapy is a key component in facilitating smooth transitions for patients (co-authorship)   
9/2013 ASCIP Conference 2013, Las Vegas, NV, Presenter   
• Poster Presentation: Evolution of CHANGE (Championing Health And Nutrition Goals Everyday): Kessler Institute’s Spinal Cord Injury Fitness & Wellness Program   
8/2011 ASCIP Conference 2011, Las Vegas, NV, Presenter   
• Oral Presentation: Obesity in Spinal Cord Injury: A Comprehensive Approach to Managing the Bariatric SCI Patient (co-presentation)   
• Poster Presentation: Fitness & Wellness for Bariatric Patients with Spinal Cord Injuries   
2011 Guidelines for Use of Durable Medical Equipment for Persons with Spinal Cord Injury & Dysfunction   
• Fitness & Wellness Chapter (co-authorship)   
  
CERTIFICATIONS & AWARDS   
8/2015 Marianne Wells Yoga School (Cahuita, Costa Rica) 200 hour yoga teacher training certification   
2/2015 Kessler Recipient of Five Star Care Award for Exemplifying Teamwork   
2014 Kessler Recipient of Five Star Care Award for Exemplifying Clinical Excellence   
7/2011 APTA Credentialed Clinical Instructor   
2005-present BLS Certified   
  
PROFESSIONAL ASSOCIATIONS   
Current American Spinal Injury Association (ASIA), member   
8/2015-8/2016 Yoga Alliance, member   
9/2005- American Physical Therapy Association (APTA), member   
2010 Sections: Orthopaedic (2007-2008) and Neurology (2007-2010)   
  
SERVICE/CHARITY   
2009-present Active participant/volunteer in numerous SCI-related charity events including the Team Reeve Walkathon, Walk to Believe, SCI Awareness 5k, Disability Pride Parade NYC and Life Rolls On as well as Polar Bear Plunge, FlyRed for Heart Disease Benefit, and the Annual Heart Walk.   
2010, 2011 Raised significant funds for the Christopher and Dana Reeve Foundation while training for the New York 2014 City Marathon as part of Team Reeve and served as a guide for hand cyclist with tetraplegia.

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**Increasing the clinical value of the zones of partial preservation – A quantitative comparison of a new definition rule applicable also in incomplete lesions**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Christian Schuld, Dipl.-Inform. Med.***  
Heidelberg University Hospital

**CV:**  
1: Schuld C, Franz S, Brüggemann K, Heutehaus L, Weidner N, Kirshblum SC, Rupp R;   
EMSCI study group. International standards for neurological classification of   
spinal cord injury: impact of the revised worksheet (revision 02/13) on   
classification performance. J Spinal Cord Med. 2016 Sep;39(5):504-12. doi:   
10.1080/10790268.2016.1180831. Epub 2016 Jun 14. PubMed PMID: 27301061; PubMed   
Central PMCID: PMC5020584.   
  
2: Franz S, Kirshblum SC, Weidner N, Rupp R, Schuld C; EMSCI study group. Motor   
levels in high cervical spinal cord injuries: Implications for the International   
Standards for Neurological Classification of Spinal Cord Injury. J Spinal Cord   
Med. 2016 Sep;39(5):513-7. doi: 10.1080/10790268.2016.1138602. Epub 2016 Feb 25.   
PubMed PMID: 26913366; PubMed Central PMCID: PMC5020589.   
  
3: Schuld C, Franz S, van Hedel HJ, Moosburger J, Maier D, Abel R, van de Meent   
H, Curt A, Weidner N; EMSCI study group, Rupp R. International standards for   
neurological classification of spinal cord injury: classification skills of   
clinicians versus computational algorithms. Spinal Cord. 2015 Apr;53(4):324-31.   
doi: 10.1038/sc.2014.221. Epub 2014 Dec 9. PubMed PMID: 25487243.   
  
4: Schuld C, Wiese J, Franz S, Putz C, Stierle I, Smoor I, Weidner N; EMSCI Study   
Group, Rupp R. Effect of formal training in scaling, scoring and classification   
of the International Standards for Neurological Classification of Spinal Cord   
Injury. Spinal Cord. 2013 Apr;51(4):282-8. doi: 10.1038/sc.2012.149. Epub 2012   
Nov 27. PubMed PMID: 23184026.   
  
5: Maurer-Burkhard B, Smoor I, von Reumont A, Deckstein G, Stierle I, Rupp R,   
Schuld C. Validity and reliability of a locomotor stage-based functional rating   
scale in spinal cord injury. Spinal Cord. 2016 Aug;54(8):619-25. doi:   
10.1038/sc.2015.223. Epub 2016 Jan 12. PubMed PMID: 26754473.   
  
6: Schuld C, Wiese J, Hug A, Putz C, Hedel HJ, Spiess MR, Weidner N; Weidner   
EM-SCI Study Group, Rupp R. Computer implementation of the international   
standards for neurological classification of spinal cord injury for consistent   
and efficient derivation of its subscores including handling of data from not   
testable segments. J Neurotrauma. 2012 Feb 10;29(3):453-61. doi:   
10.1089/neu.2011.2085. Epub 2011 Nov 7. PubMed PMID: 21933016.

***Steffen Franz, MD***  
Heidelberg University Hospital

*(no CV uploaded)*

***Norbert Weidner, MD***  
Heidelberg University Hospital

*(no CV uploaded)*

***Steven Kirshblum, MD***  
Kessler Institute for Rehabilitation

*(no CV uploaded)*

***Keith Tansey, MD, PhD***  
Methodist Rehabilitation Center

*(no CV uploaded)*

***Rüdiger Rupp, PhD***  
Heidelberg University Hospital

*(no CV uploaded)*

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**Validity and Reliability of Physical Abilities and Mobility Scale (PAMS) in children with spinal cord related paralysis**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Cristina Sadowsky, MD***  
Kennedy Krieger Institute

**CV:**  
DEMOGRAPHIC AND PERSONAL INFORMATION   
  
Current Appointments (in chronological order, earliest first by start date under each subcategory)   
2005-present Assistant Professor, Department of Physical Medicine and Rehabilitation, Johns University Hopkins School of Medicine, Baltimore, Maryland   
2004-present Director Paralysis Restoration Clinic, International Center for Spinal Cord Injury at Kennedy Krieger Institute, Baltimore, Maryland   
  
Personal Data   
Business address:   
Kennedy Krieger Institute   
716 North Broadway   
Baltimore, MD 21205   
Phone: (443) 923-9211   
Fax: (443) 923-9215   
E-mail : sadowsky@kennedykrieger.org   
  
Professional Experience (in chronological order, earliest first)   
7/94-6/95 Chief Resident, Internal Medicine Program, Meridia Huron-Hilcrest Hospital, Cleveland, Ohio   
4/97-3/98 Chief Resident, Physical Medicine and Rehabilitation Program, Barnes-Jewish Hospital, Washington   
University School of Medicine, St. Louis, Missouri   
7/98-6/99 Clinical Instructor in Neurology, Washington University School of Medicine, St. Louis, Missouri   
7/99-6/05 Assistant Professor of Neurology, Division of Rehabilitation, Spinal Cord Injury Unit, Washington University School of Medicine, Barnes-Jewish Hospital, St. Louis, Missouri   
10/04-present Director Paralysis Restoration Clinic and Medical Director, International Center for Spinal Cord Injury at Kennedy Krieger Institute, Baltimore, Maryland;   
3/05-present Assistant Professor of Physical Medicine and Rehabilitation, Johns Hopkins School of Medicine, Baltimore MD   
  
PUBLICATIONS: (in chronological order, earliest first, under each subcategory)   
Original Research [OR]   
1. Martin R, Johnston K, Sadowsky C. Neuromuscular Electrical Stimulation-Assisted Grasp Training and Restoration of Function in the Tetraplegic Hand: A Case Series. Am J Occup Ther. July-August 2012: 66(4): 471-477   
2. Sadowsky C, Hammond E, Stroll A, Commean P, Eby S, Damiano D, Wingert J, Bae K, McDonald J. Lower extremity functional electrical stimulation cycling promotes physical and functional recovery in chronic spinal cord injury. J Spinal Cord Med. 2013 Nov; 36(6):623-31.   
3. Choe AS, Belegu V, Yoshida S, Joel S, Sadowsky CL, Smith SA, van Zijl PC, Pekar JJ, McDonald JW.   
Extensive neurological recovery from a complete spinal cord injury: a case report and hypothesis on the role of cortical plasticity. Front Hum Neurosci. 2013 Jun 25; 7:290. doi: 10.3389/fnhum.2013.00290. eCollection 2013.   
PMID: 23805087   
4. Selvarajah S, Schneider E, Becker D, Sadowsky C, Haider A, Hammond E. The Epidemiology of Childhood and Adolescent Traumatic Spinal Cord Injury in the United States: 2007-2010. J of Neurotrauma. 2014 Sep 15; 31(18):1548-60. Epub 2014 Aug 12.   
5. Hammond E, Metcalf H, McDonald J, Sadowsky C. Bone Mass in Individuals with Chronic Spinal Cord Injury: Associations with Activity-Based Therapy, Functional and Neurologic Status, a Retrospective Study". Arch Phys Med Rehabil. 2014; 95:2342-9.   
6. Hammond ER, Recio AC, Sadowsky CL, Becker D. Functional electrical stimulation as a component of activity-based restorative therapy may preserve function in persons with multiple sclerosis. J Spinal Cord Med. 2015 Jan;38(1):68-75   
7. Selvarajah S, Haider, Sadowsky CL, Schneider EB, Becker D, Hammond ER. Traumatic Spinal Cord Injury Emergency Service Triage Patterns and the Associated Emergency Department Outcomes. J of Neurotrauma. 2015 Dec 15;32(24):2008-16. doi: 10.1089/neu.2015.4016. Epub 2015 Sep 9.   
8. Calhoun Thielen C, Sadowsky C, Vogel LC, Taylor H, Davidson L, Bultman J, Gaughan J, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI-II) in children with Spinal Cord Injury (SCI). Spinal Cord (2017) 55, 478–482.   
9. Wang KY, Idowu O, Thompson CB, Orman G, Myers C, Riley LH, Carrino JA, Flammang A, Gilson W, Sadowsky CL, Izbudak I. Tract-specific Diffusion Tensor Imaging in Cervical Spondylotic Myelopathy After Decompressive Spinal Surgery: Preliminary Results. Clinical Neuroradiology. 2017; 27:61-69   
10. Felter, CE, Bentley, JA, Sadowsky, CL, & Wegener, ST (2017). Characteristics of individuals seeking activity-based restorative therapy following spinal cord injury: A focus on hope. Neurorehabilitation, doi:10.3233/NRE-171476   
11. Choe AS, Sadowsky CL, Smith SA, van Zijl PCM, Pekar JJ, Belegu V. Subject-specific regional measures of water diffusion are associated with impairment in chronic spinal cord injury. Neuroradiology (accepted May 2017)   
12. Mertins R, Selvarajah S, Sadowsky C. The Efficacy of Aquatic and Land-Based Locomotor Training on Ambulatory Function and Quality of Life in Adults With Incomplete Spinal Cord Injuries: Two Case Reviews. The Journal of Aquatic Physical Therapy; accepted September 2017   
  
Review Articles [RA]   
1. Sadowsky CL, Margherita A. The cost of spinal cord injury care, State of the Art Reviews in Spine (STARS) 1999; 13(3): 593-606.   
2. Sadowsky CL. Electrical stimulation in spinal cord injury; NeuroRehabilitation 2001; 16(3): 164-169.   
3. McDonald JW, Sadowsky C. Spinal cord injury Seminar, Lancet. 2002; 359: 417-425.   
4. Sadowsky C, Volshteyn O, Schultz L, McDonald JW; Spinal Cord Injury; Disability and Rehabilitation. 2002; 24(13):680-687.   
5. Becker D, Sadowsky C, McDonald JW. Restoring function after spinal cord injury. The Neurologist. Jan 9(1):1-15. 2003.   
6. Sadowsky C, McDonald J. Activity Based Restorative Therapies (ABRT); concepts and applications in spinal cord injury-related neurorehabilitation. Developmental Disabilities Research Reviews 2009; (15):112-116.   
7. Sadowsky C, Becker D, Bosques G, Dean J, McDonald J, Recio A, Frohman E. Rehabilitation in Transverse Myelitis. Continuum Lifelong Learning in Neurology 2011; 17(4)816-830.   
8. Martin R, Sadowsky C, Obst K, Meyer B, McDonald J. Functional Electrical Stimulation in SCI: From Theory to Practice. Top Spinal Cord Inj Rehabil. 2012 Winter;18(1):28-33.   
9. Dolbow DR, Gorgey AS, Recio AC, Stiens SA, Curry AC, Sadowsky CL, Gater DR, Martin R, McDonald JW. Activity-Based Therapies after Spinal Cord Injury: Inter-institutional conceptions and perceptions. Aging and Disease. 2015 August. Volume 6, Number 4; 254-261.   
10. Bosques G, Martin R, McGee L, Sadowsky C. Does therapeutic electrical stimulation improve function in children with disabilities? A comprehensive literature review. Journal of Pediatric Rehabilitation Medicine: An Interdisciplinary Approach 9 (2016);83–99   
  
Case Reports [CR]   
1. Rotondo K, Greenemeier S, Martin R, Sadowsky C. Aquatic locomotor training improves over-ground gait in patient with tetraplegia. The Journal of Spinal Cord Medicine. 2013: 36(5): 557-558.   
2. Olegario-Nebel M, Sadowsky C. “Safety and Effectiveness of Functional Electrical Stimulation-Driven Stepping in Individuals with Spinal Cord Injury”, presented at the AAPM&R Annual Conference, Saturday, November 17, 2012.   
Book Chapters, Monographs [BC]   
1. Trovato M, Pidcock F, Sadowsky C, Brandys E, Suskauer S, Salorio C, Christensen J. Rehabilitation of Children with Critical Illness. Spinal Cord Injury. Rogers Textbook of Pediatric Intensive Care. 4th Edition. 2006; 166-179.   
2. Sadowsky C, Aquired Spinal Cord Dysfunction. Pasquale J (ed). Capute & Accardo's Neurodevelopmental Disabilities in Infancy and Childhood, Neurodevelopmental Diagnosis and Treatment; 2007. Third Edition. Volume I:639-650.   
3. Sadowsky C. Into the Wilderness; trauma, hospitalization, and acute care. Palmer S, Kriegsman K, Palmer J (ed). Spinal Cord Injury; A Guide for Living. 2nd Edition. The Johns Hopkins University Press. 2008; 5-36.   
4. McDonald J, Sadowsky C. The Next Frontier: Spinal Cord Injury Research. Palmer S, Kriegsman K, Palmer J (eds). Spinal Cord Injury; A Guide for Living. 2nd Edition.The Johns Hopkins University Press. 2008; 237-282.   
5. McDonald J, Sadowsky C. Spasticity and spinal cord disorders. Johnston and Gross (eds). Contemporary Neurology Series. Principles of Drug Therapy in Neurology. 2nd Edition. 2008; 273-290.   
6. McDonald J, Sadowsky C, Stampas A. The changing field of rehabilitation: Optimizing spontaneous regeneration and functional recovery. Handb Clin Neurol. 2012; 109:317-36.   
  
Other Publications   
Proceedings Reports [PR]   
1. Sadowsky C, Whiting H, Pai J, Recio A, Becker D, Houdayer T, Al-Adawi S. Prevalence and Risk Factors for Osteoporosis in Individuals with Paralysis. Journal of Clinical Densitometry 2009; 12(3):388-389.   
2. Sadowsky C. Activity-Based restorative Therapy in Pediatric Transverse Myelitis: A Retrospective Cohort Analysis. Topics in Spinal Cord Injury Rehabilitation. 2013; 19(2): 176-177.   
3. Sadowsky C, Martin R, McDonald J. Effect of Activity-Based Restorative Therapies on Multiple Neurological, Day to Day and Quality of Life Outcomes in a Large Cohort of Individuals with Chronic Paralysis Related to Spinal Cord Disease. Topics in Spinal Cord Injury Rehabilitation. 2013; 19(5): 53-54.   
  
FUNDING (in chronological order, earliest first by start date under each subcategory)   
  
EXTRAMURAL Funding (Show as current, pending, previous under each subcategory and follow format above.)   
Research Extramural Funding - Grants or contracts obtained to support a research initiative   
Current Funding   
04/01/2017- 12/31/2018 The WISE Trial - Walking Improvement for SCI with Exoskeleton - multicenter   
Protocol #: 105333   
Sponsor: Ekso Bionics   
Role: Site PI   
Annual Direct Cost: $15,000   
Previous Funding   
01/01/2014-12/31/2016 Pediatric Multi-Center Evaluation of Notable SCI Outcomes Instruments (subcontract)   
Grant ID: 082-26012-F67501; 282592   
Sponsor: Craig H. Neilsen Foundation   
PI: MJ Mulcahey-Hersey   
Prime Site: Thomas Jefferson University   
Role: Site-PI   
Annual Direct Cost: $31,273 Total Award: $98,400   
01/01/2014-12/31/2016 Linking Adult and Pediatric outcomes instruments (subcontract)   
Sponsor: Shriner’s Hospital for Children   
PI: MJ Mulcahey-Hersey   
Grant ID: SHC.PHI-79142   
Prime Site: Thomas Jefferson University   
Role: Site-PI   
Annual Direct Costs: $26,500 Total Award: $52,000   
  
07/01/2001-6/30/2002 Effects of activity dependent exercise on spasticity in patients with complete spinal cord injury   
Project #: 01-0253   
Sponsor: McDonnell Center for Higher Brain Function   
Direct Cost: $20,000   
PI: Cristina Sadowsky   
% effort: 10%   
12/2003 – 12/2004 Effects of an Activity-Based Therapeutic Program on Physical Health and Quality of Life in Persons with Spinal Cord Injuries   
Project #: 46155   
Sponsor: Christopher Reeve Paralysis Foundation   
Direct Cost: $71,165   
PI: Cristina Sadowsky   
% effort: 10%   
09/28/2009-09/29/2012 Advanced Restoration Therapies in Spinal Cord Injury   
Projects #: W81XWH-09-2-0186, W81XWH-09-2-0186 CLIN0002, W81XWH-10-2-0182   
Sponsor: US Army Medical Research and Materiel Command (USAMRMC) / US Army Medical Research Acquisition Activity (USAMRAA)   
Direct Cost: $1,837,762.00 + $1,179,481.00 + $2,292,348.54   
PI: John W McDonald   
Role: Co-PI Aim 1   
% effort: 10%, 2% and 1.5%   
  
Educational Extramural Funding–Grants or contracts obtained to support an educational initiative, incl. training grants   
Previous Funding   
07/01/2013-06/30/2014 SCI Medicine Fellowship Grant   
Grant ID: 251875   
Sponsor: Craig H. Neilsen Foundation   
PI: Cristina Sadowsky, MD   
Role: PI   
Annual Direct Cost: $72,445   
% Effort: 25 %   
  
CLINICAL ACTIVITIES   
Director and co-founder of the International Center for Spinal Cord Injury (ICSCI) at the Kennedy Krieger Institute (KKI). The center is nationally recognized as a clinical center of excellence and currently has an annual budget of $13 million. The ICSCI serves approximately 1,200 active patients and schedules approximately 20,000 visits per year focusing on the care of individuals with chronic paralysis related to spinal cord disease (SCD). I currently have >350 patients that I see on an annual basis (at least once/year) and I focus on person-oriented care for these individuals who have paralysis due to spinal cord injury/disease (SCI/SCD). My clinical activities are as follows: 40% of my time is directly involved with seeing patients which includes weekly outpatient clinics (adults and pediatric) (27.5%); the care of inpatients (pediatric only) (2.5%) and urodynamics studies (10%). In addition, 10% effort is dedicated to weekly DXA report readings.   
  
CERTIFICATION   
Medical, other state/government licensure   
9/04 Licensed in the state of Maryland (MD D0062338)   
  
Boards, other specialty certification   
8/94-2004 Diplomate in Internal Medicine (153731)   
7/99 Diplomate in Physical Medicine and Rehabilitation (6153), recertification 2007, 2016   
10/00 Diplomate in Spinal Cord Injury Medicine (229), recertification 2007   
  
Invited Talks   
JHMI/Regional   
9/2002 Spasticity Management, Eric P. Newman Education Center St. Louis MO   
7/2006 Bone mass health and paralysis, Rare Neuroimmunologic Disorders Symposium, Baltimore MD   
11/2014 The Importance of Physician Leadership in Health Care Reform; Improving Communications and Listening Skills. Med Chi (Maryland State Medical Society) Physician Leadership Institute, Baltimore   
12/2003 Spasticity Management Workshop, EPNEC, December 2003   
National   
5/2007 Update on medical management of individuals with spinal cord injury. Working to Walk Symposium, Washington DC.   
5/2008 Medical management of individuals with spinal cord injury. Working to Walk Symposium, Washington   
DC. May 2008   
5/23/2012 University of Texas SW Medical Center Dallas. Distinguished Visiting Professor Multiple Sclerosis Lecture Series   
10/25-26/13 Understanding Activity Based Rehabilitation. Rare Neuro-immunologic Disorders Symposium   
University of Texas Southwestern Medical Center.   
3/2013 Small fellowships challenges. Association of Academic Physiatrists annual meeting. New Orleans   
2014 Evidence based management of spasticity in activity based restorative therapy: bench to bedside science.   
Working 2 Walk. Seattle, WA.   
6/26-29/16 Considerations of Clinical Rehabilitation for Pediatric SCI. The 34th Annual Neurotrauma Symposium,   
Lexington, KY.   
6/08-09/2017 10th Black Forest Forum for MSK Interaction. Burg Liebenzell 1a, 75378 Bad Liebenzell, Germany   
10/13-15/2017 Working2Walk, Miami Florida; Panel discussion: Activity Based Therapy Strategy

***Erin Neuland, DPT***  
Kennedy Krieger Institute

*(no CV uploaded)*

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**Psychometric Properties of the Spinal Cord Independence Measure-III Self Report- Youth**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***MJ Mulcahey, PhD, OTR\L***  
Thomas Jefferson University

**CV:**  
Position:   
Professor and Director of Research, Dept.of Occupational Therapy, Jefferson College of Health Professions, Thomas Jefferson University, Phila. PA. 19107.   
  
Peer Review Publications – Last Five Years   
1. Jones L., Mulcahey MJ, Steeves J. Considerations and Recommendations for Selection and Utilization of Upper Extremity Clinical Outcome Assessments in Human Spinal Cord Injury Trials. Spinal Cord, In Press.   
2. Jasin S, Winkle M, Mulcahey MJ. Integration of Animal-Assisted Therapy Standards in Pediatric Occupational Therapy. People and Animals: The International Journal of Research and Practice, In Press.   
3. Mulcahey MJ, Slavin M, Ni P, Kratz A, Kisala P, Haley SM, Tulsky DS, Jette AM. Examination of the PROMIS®: Pediatric upper extremity measures in youth with cerebral palsy. British J Occupational Therapy, In Press.   
4. Alizadeh M, Mulcahey MJ, Mohamed F. Reduced Field of View Diffusion Tensor Imaging and Fiber Tractography of the Pediatric Cervical and Thoracic Spinal Cord Injury. J Neurotrauma, In Press.   
5. Krogh K, Emmanuel A, Perrouvin-Verbe B, Korsten MA, Mulcahey MJ, Biering-Sørensen F. International Spinal Cord Injury Bowel Function Basic Data Set. (Version 2.0). Spinal Cord, 2017; 55(7):692-698. doi: 10.1038/sc.2016.189.   
6. Carroll A, Vogel L, Zebracki K, Noonan VK, Biering-Sorensen F, Mulcahey MJ. Relevance of the International SCI Basic Data Sets to Children and Youth: An Inter-professional Review with Recommendations. Spinal Cord, 2017;55(9):875-881.   
7. Thielen CC, Sadowsky C, Vogel LC, Taylor H, Davidson L, Bultman, J, Gaughan JP, Mulcahey MJ. Evaluation of the Walking Index for Spinal Cord Injury II (WISCI II) in Children with Spinal Cord Injury. Spinal Cord, 2017;55(5):478-482. doi:10.1038sc.2016.142.   
8. Mulcahey MJ, Vogel LC, Sheikh M, Arango-Lasprilla JC, Augutis M, Garner E, Hagen EM, Jakeman LB, Kelly E, Martin R, Odenkirchen J, Scheel-Sailer A, Schottler J, Taylor H, Thielen CC, Zebracki K. Recommendations for the National Institute for Neurologic Disorders and Stroke Spinal Cord Injury Common Data Elements for Children and Youth with SCI, Spinal Cord, 2017;55(4):331-340. doi:10.1038/2016.139.   
9. Bell A, Guido T, Krisa L, Muhlenhaupt M, Mulcahey MJ. Measures and Outcome Instruments for Pediatric Spinal Cord Injury. Current Physical Medicine and Rehabilitation, 2016,4:200-207. DOI:10.007/s40141-016-0126-5.   
10. Lesher DA, Hershey P, Stanton DB, Tiedgen A, Mulcahey MJ. Alignment of Outcomes instruments used in hand therapy with core values of occupational therapy: a systematic scoping review. American J Occupational Therapy 2017, 71(1):7101-7114. doi:10.5014/ajot/2017.016741.   
11. Alizad eh M, Intinolo A, Middleton D, Conklin CJ, Faro SH, Mulcahey MJ, Mohamed FB. Reduced FOV diffusion tensor MR imaging and fiber tractography of pediatric spinal cord injury. Spinal Cord 2017;55(3):314-320. doi:10.1038/sc2016.121   
12. Saksena S, Middleton D, Krisa L, Shah P, Faro S, Sinko R, Gaughan J, Finsterbusch, Mulcahey MJ, Mohamed FB. Reduced FOV Diffusion Tensor MR Imaging of the Normal Pediatric Cervical and Thoracic Spinal Cord. AJNR, 2016, Jul 14 [ePub ahead of print]. PMID:27418470   
13. Aldino E, Mulcahey MJ, Trimble S, Argetsinger L, Bienkowski M, Mullen C, Behrman A. Development and initial validation of the pediatric neurorecovery scale. Pediatric Physical Therapy 2016, 201, 28(4):416-426. PMID:27428576   
14. Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Calhoun Thielen CL, Coster WJ, Jette, AM. The Pediatric Measure of Participation (PMoP) Short Forms. Spinal Cord, 2016,54(12):1183-1187. doi: 10.1038/sc.2016.68.   
15. Coster W, Pengsheng N, Slavin M, Kisala P, Nandakumar R, Mulcahey MJ, Tulsky D, Jette AM. Differential item functioning in PROMIS pediatric short forms in a sample of children with cerebral palsy. Developmental Med Child Neurology, 2016 58(11):1132-1138. doi: 10.1111/dmcn.13138.   
16. Conklin CJ, Middleton DM, Alizadeh M, Finsterbusch J, Raunig DL, Faro SH, Shah P, Krisa L, Sinko R, Delalic JZ, Mulcahey MJ, Mohamed FB. Spatially selective 2D RF inner field of view diffusion kurtosis imaging of the pediatric spinal cord. Neuroimage Clin. 2016 Jan 12;11:61-7. doi: 10.1016/j.nicl.2016.01.009. eCollection 2016.   
17. Gannotti ME, Law M, Bailes AF, O’Neil ME, Williams U, DiRezze B, Expert Panel. Comparative effectiveness research and children with cerebral palsy: identifying a conceptual framework and specifying measures. Pediatr Phys Ther 2016,28(1):58-69. doi:10.1097/PEP.0000000000000203.   
18. Slavin M, Mulcahey MJ, L Vogel, C Calhoun, A Jette. Development and validation of short forms of activity for youth with SCI. Spinal Cord, 2016, 54(7):546-552. doi: 10.1038/sc.2015.194.   
19. Cuddihy L, Danielsson AJ, Cahill PJ, Samdani AF, Grewal H, Richmond J, Mulcahey MJ, Gaughan JP, Antonacci MD, Betz RR. Vertebral body stapling vs. bracing for patient with high-risk moderate idiopathic scoliosis. Biomedical Research International, 2015; 2015:438452. doi: 10.1155/2015/438452.   
20. Mulcahey MJ, C Calhoun, L Vogel, E Kelly, R Sinko. The Spinal Cord Independence Measure Self Report for Youth. Spinal Cord, 2016;54(3):204-2012. Jun 16. doi:10.1038/sc.2015.103.   
21. Mulcahey MJ, Haley SM, Slavin M, Pengsheng N, Jette AM. Cerebral palsy computer adaptive tests detect improvements following orthopedic surgery in youth with cerebral palsy. J Bone Joint Surg Am 2015; Sept 16;97(18):1482-94. doi:10.2106/JBJS.O.00179. PMID26378264   
22. Mulcahey MJ, Slavin M, Ni P, Tulsky D, Kisala P, Jette A. Responsiveness of the PROMIS Measures in Children with Cerebral Palsy Undergoing Musculoskeletal Surgery. J Pediatric Orthopedics, 2015 Jun 5. Epub ahead of print.   
23. Reeve BB, Thissen D, DeWalt DA, Huang IC, Liu Y, Magnus B, Quinn H, Gross HE, Kisala P, Ni P, Haley S, Mulcahey MJ, Charlifue S, Hanks R, Slavin M, Jette A, Tulsky DS. Linkage between the PROMIS pediatric and adult emotional distress measures. Qual Life Research,2016;25(4):823-83. PMID:26424169   
24. Barakat N, Shah P, Faro S, Gaughan J, MIddelton D, Mulcahey MJ, Mohamed F. Interrater and intra-rate reliability of DTI parameters in the normal pediatric spinal cord. World J Radiology, 2015;7(9):279-285.   
25. Russell H, January AM, Kelly EN, Mulcahey MJ, Bets RR, Vogel LC. Patterns of coping strategy use and relationship with psychosocial health in adolescents with spinal cord injury. J Ped Psychol, 2015;40(5):535-543.   
26. Marino R, Kern S Leiby B, Schmidt-Read M, Mulcahey MJ. Reliability and validity of the Capability of Upper Extremity Test (CUE-T) in subjects with chronic spinal cord injury. J Spinal Cord Med, 2014. 38(4):498-504. PMID 2529734   
27. Muller M, Toth-Cohen S, Mulcahey MJ. Empowerment support group for young stroke survivors. Occupational Therapy in Health Care, 2014 28(3):277-295. PMID 24971895   
28. Middleton D, Mohamed F, Barakat N, Hunter L, Shellikeris A, Finterbush J, Faro SH, Shah D, Samdani AF, Mulcahey MJ. An investigation of motion correction algorithms for pediatric spinal cord DTI in healthy subjects and patients with spinal cord injury. Magnetic Resonance Imaging, 2014, 32(5):433-439. doi:10.10/j.mri.2014.01.020.   
29. Biering-Sorensen F, Bryden A, Curt A, Friden J, Harvey LA, Mulcahey MJ, Popovic MR, Prochazka A, Sinnott KA, Snoek G. International spinal cord injury upper extremity basic data set. Spinal Cord, 2015;53(12):890. DOI 10.1038/sc.2014.87.   
30. Tian F, Pengsheng N, Mulcahey MJ, Hambleton R, Tulsky D, Haley SM, Jette AM. Tracking functional status across the spinal cord injury lifespan: Linking Pediatric and Adult Patient reported outcome scores. Arch Phys Med Rehab, June 13, 2014; pii:s0003-9993(14)00419-5. DOI 10.1016/j.apmr.2014.05.023.   
31. Kirshblum S, Biering-Sorensen F, Betz R, Burns S, Donovan W, Graves DE, Johansen M, Jones L, Mulcahey MJ, Rodriquez GM, Schmidt-Read M, Steeves JD, Tansey K, Waringin W. International Standards for Neurological Classification of SCI: cases with classification challenges. J Spinal Cord Med., 2014, 37(2):120-127. DOI 10.1179/2045772314Y.0000000196.   
32. Mulcahey MJ, Merenda L, Tian F, Kozin S, James M, Gogola G, Pengsheng N. Computer adaptive test approach to the assessment of children and youth with brachial plexus injuries. Amer J Occupational Therapy, 2013; 67(5):524-533. doi:10.5014/ajot.2013.008037   
33. Mulcahey MJ, Samdani AF, Gaughan JP, Barakat N, Faro S, Shah P, Betz RR, Mohamed F. Diagnostic Accuracy of Diffusion Tensor Imaging for Pediatric Cervical Cord. Spinal Cord 2013;51(7):532-537. doi:10.1038/sc.2013.36   
34. Smith T, Russell H, Kelly E, Mulcahey MJ, Betz RR, Vogel LC. Examination and measurement of coping among adolescents with spinal cord injury. Spinal Cord 2013;51(9):710-714. doi:10.1038/sc.2013.3   
35. Kratz A, Slavin M, Mulcahey MJ, Jette A, Tulsky D, Haley SM. An examination of the PROMIS Pediatric Instruments to Assess Mobility in Children with Cerebral Palsy. Quality of Life Research, 2013;22(10):2865-2876. DOI :10.1007/s11136-013-0397-   
36. Hwang M, Zebracki K, Betz RR, Mulcahey MJ, Vogel LC. Normative blood pressure and heart rate in pediatric spinal cord injury. Topics of Spinal Cord Injury Rehabilitation, 2013;19(2):87-95. DOI: 10.1310/sci1902-8   
37. Krisa L, Mulcahey MJ, Gaughan JP, Smith B, Vogel LC. Topics of Spinal Cord Injury Rehabilitation, 2013;19(2): 114-120. DOI: 10.1310/sci1902-114   
38. Bent L, Mulcahey MJ, Kelly E, Calhoun C, Tian F, Pensheng N, Vogel L, Haley S, Mulcahey MJ. Child- and Parent- Report Computer-Adaptive Tests for Assessing Daily Routines among Youth with Spinal Cord Injury. Topics of Spinal Cord Injury Rehabilitation, 2013;19(2):104-113. DOI: 10.1310/sci1902-104   
39. Mulcahey, MJ, Barakat N, Hunter L., Gaughan J, Betz R, Vogel L. Neuromuscular Scoliosis in Children with Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation 2013;19(2):96-103. DOI: 10.1310/sci1902-96   
40. Krisa L, Middelton D, Faro S, Calhoun C, Mohamed F, Mulcahey MJ. Cerebral activation during the test of spinal cord injury severity in children: an fMRI study. Topics in Spinal Cord Injury Rehabilitation 2013;19(2):121-128. DOI: 10.1310/sci1902-121   
41. Chafetz RC, Gaughan JP, Calhoun C, Schottler J, Vogel LC, Betz RR, Mulcahey MJ. Relationship between neurological injury and patterns of upright mobility in children with spinal cord injury. Topics in Spinal Cord Rehabilitation 2013;19(1)31-41. DOI: 10.1310/sci1901-31 PMid: 23678283   
42. Krisa L, Gaughan J, Vogel LC, Betz RR, Mulcahey MJ. Agreement of repeated motor and sensory scores at individual myotomes and dermatomes in young persons with spinal cord injury. Spinal Cord. Spinal Cord. 2013;51:75-81. Nov 13. doi: 10.1038/sc.2012.127.   
43. Biering-Sorensen F, Burns AS, Curt A, Harvey LA, Mulcahey MJ, Nance PW, Sherwood AM, Sisto SA. International spinal cord injury musculoskeletal basic data set. Spinal Cord 2012;50:797-802. doi: 10.1038/sc.2012.102   
44. Krisa L, Gaughan J, Vogel L, Betz RR, Mulcahey MJ.. Response to Editorial note on: Agreement of repeated motor and sensory scores at individual myotomes and dermatomes in young persons with spinal cord injury. Spinal Cord, 2013;82. Nov 6. doi: 10.1038/sc.2012.130.   
45. Mulcahey, MJ, Calhoun C, Tian F, Ni P, Vogel L, Haley S. Evaluation of newly developed item banks for child reported outcomes of participation following spinal cord injury. Spinal Cord. 2012 Dec;50(12):915-9. doi: 10.1038/sc.2012.80. Epub 2012 Aug 21. doi: 10.1038/sc.2012.80   
46. Mulcahey MJ. Spinal Cord Injury. J Pediatric Rehabil Med 2012;5(4):243. Doi:10.3233/PRM-2012- 00224.   
47. Vogel LC, Betz RR, Mulcahey MJ. Spinal Cord Injuries in children. Hand Clinics Neurol, 2012;109:131-148. doi: 10.1016/B978-0-444-52137-8.00008-5   
48. Mulcahey MJ, Kozin S, Merenda L, Gaughan J, Tian F, Gogola G, James M, Ni P, Haley S. Evaluation of the box and blocks test, stereognosis and item banks of activity and upper extremity function in youths with brachial plexus birth palsy. J Pediatr Orthop. 2012 Sep;32 Suppl 2:S114-22. doi: 10.1097/BPO.0b013e3182595423   
49. Barakat, N, Mulcahey MJ, Mohamed F, Gaughan J. Diffusion Tensor Imaging in a Child with Transverse Myelitis. Pediatric J Phys Med Rehab. 2012;5:281-286.   
50. Calhoun C & Mulcahey MJ. Validity and reliability of the Walking Index of Function in children with spinal cord injury. Pediatric J Phys Medicine and Rehab. 2012;5:275-279.   
51. Lindwall JJ, Russell HF, Kelly E, Klass S, Mulcahey MJ, Betz RR, Vogel LC. Coping and Participation in Youth With Spinal Cord Injury. Topics in SCI Rehabilitation, 2012,18(3);220-231.   
52. Marino RJ, Patrick M, Albright W, Leiby BE, Mulcahey MJ, Schmidt-Read M, Kern SB. Development of an objective test of upper limb function in tetraplegia: The Capabilities of the Upper Extremity Test. Am J Phys Med Rehabil. 2012 Jun; 91(6):478-86. Doi: 10.1097/PHM.0b013e31824fa6cc PMid:22469875   
53. Mulcahey, MJ, Samdani AF, Gaughan JP, Barakat N, Faro S, Betz RR, Finsterbusch J, Mohamed F. Diffusion tensor imaging in pediatric spinal cord injury: preliminary examination of reliability and clinical correlation. Spine, 2012:37(13):1-7. Doi: 10.1097/BRS.0b013e3182470a08 PMid:22210015   
54. Barakat N, Mohamed F, Hunter L, Shah L, Faro S, Samdani A, Finsterbusch J, Betz R, Gaughan J, Mulcahey MJ. Diffusion tensor imaging of the normal pediatric spinal cord using an inner-FoV EPI sequence. Am J Neuroradiol, 2012 Feb 2. PMID:22300927   
55. Mulcahey, MJ, Samdani AF, Gaughan JP, Barakat N, Faro S, Betz RR, Finsterbusch J, Mohamed F. Diffusion tensor imaging in pediatric spinal cord injury: preliminary examination of reliability and clinical correlation. Spine (Phila Pa 1976), Dec. 28, 2011; PMID:22210015.   
  
Non-Peer Reviewed Publications Over Last Five Years   
1. Mulcahey MJ. (ed). Upper Extremity Considerations in Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation, In Press.   
2. Vogel L, Zebracki K, Betz RR, Mulcahey MJ (eds). The Child with SCI. McKeith Press: London. ISBN:978-1-909962-34-7. 2014   
3. Mulcahey MJ (ed). Howard H. Steel Conference on Pediatric SCI and Dysfunction. Topics in Spinal Cord Injury Rehabilitation 19(1);2013.   
4. Mulcahey, MJ (ed). Spinal Cord Injury. Topics in Pediatric Physical Medicine Rehabilitation. Special Issue on Pediatric Spinal Cord Injury Rehabilitation 5(4), 2012.   
5. Mulcahey MJ, Talero-Cabrejo P, Kern S, Horley A, Koch M, Rude A. (2016) Occupational Therapy. In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 35, pg 538-557.   
6. Mulcahey MJ, Betz RR, Bryden A, Calhoun C, LaVelle W, Schmidt-Read M, Stiefbold G. (2016) Orthotics. In: In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 36, pp. 558-579.   
7. Mulcahey MJ & Kozin S. (2014). Outcomes Instruments. In: Abzug JM, Kozin SH, Zlotlow D (eds). The Pediatric Upper Extremity. Spinger Science+Business Media: New York. DOI:10.1007/978-1-4614-8758-6\_4-1. pp.1-22.   
8. Vogel L, Zebracki K, Mulcahey MJ. Special Considerations for Rehabilitation of Pediatric SCI. In: Harvinder Singh Chhabra (ed). ISCoS Textbook on Comprehensive Management of Spinal Cord Injury. .Wolters Kluwer:New Delhi, Chapter 63, pp. 941-955.   
9. Mulcahey MJ & Fin Sorensen. (2014). Assessment of Children with Spinal Cord Injury. In: Vogel, Zebracki, Betz RR and Mulcahey MJ (eds). The Child With SCI, 2nd edition. McKeith Press: London. ISBN:978-1-909962-34-7.   
10. Mulcahey MJ, Zlotlow D, Kozin S. (2014). Upper Extremity Management. In: Vogel, Zebracki, Betz RR and Mulcahey MJ (eds). The Child With SCI, 2nd edition. McKeith Press London. ISBN:978-1-909962-34-7.   
11. Vogel, L.C., Betz, R.R., Mulcahey, M.J. (2012) Spinal Cord Injuries in Children and Adolescents. In   
J. Verhaagen, J. McDonald. (Eds.). Handbook of Clinical Neurology. Elsevier pp138-148.   
  
  
Presentation Over Last Five Years   
1. Mulcahey MJ. Pediatric spinal cord rehabilitation. 2017 International Spinal Cord Society, Dublin, Ireland. October 26-30, 2017.   
2. Slavin M & Mulcahey MJ. Contemporary measurement in spinal cord injury. 2017 International Spinal Cord Society, Dublin, Ireland. October 26-30, 2017.   
3. Foo S, Piersol C, Mulcahey MJ. Opportunity for reducing fall-related spinal cord injury among healthy older adults: referring to occupational therapy. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):38-39.   
4. Slavin MD, Mulcahey MJ, Thiele CC, Ni P, Johnson C, Davidson L, Sadowsky C, Vogel L, Jette A. Validation of linking estimates for the pediatric SCI activity measure: implications for research and practice. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1): 53-54.   
5. Zebracki K, Kelly E, Arango-Lasprillo J, Augutis M, Garner E, Hagen E, Taylor H, Vogel L, Mulcahey MJ. The NINDS SCI CDEs for psychosocial and quality of life outcome instruments: implications for research and practice. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):55-56.   
6. Vogel L, Carroll A, Zebracki K, Noonan V, Mulcahey MJ, Biering-Sorensen F. Relevance of the international spinal cord injury data sets to children and youth: an intra-professional review with recommendations. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):56.   
7. Mulcahey MJ, Thielen CC, Slavin M, Vogel L, Sadowsky C, Davidson L, Gaughan J, Jette A. Predictors of child reported outcomes of daily routines, mobility and participation after spinal cord injury. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):66-67.   
8. Mulcahey MJ, Slavin M, Thielen CC. Slection, administration, scoring and administration of the pediatric SCI activity measure and the pediatric measure of participation. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):73-74.   
9. Alizadeh M, Sultan Y, Saksen S, Conklin C, Middleton D, Fisher J, Krisa L, Faro S, Mulcahey MJ, Mohamed F. Age-related changes in reduced FOV DTI and fiber tractography of the typically developed cervical and thoracic spinal cord. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):76-77.   
10. Mulcahey MJ, Thielen CC, Sadowsky C, Vogel L, Taylor H, Davidson L, Bultman J, Gaughan J. Despite limitations, the SCIM-III is reproducible and a valid indicator of physical function in youth with SCI. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):96-97.   
11. Foo S, Mulcahey, MJ, Piersol C. Utilization of Occupational Therapy by Older Healthy Adults at Risk for Falls is Low. Presented at the 2017 Annual Conference and Expo of the American Occupational Therapy Association. Philadelphia, PA. Mar. 30-Apr.2, 2017, Philadelphia, PA.   
12. Levy F & Mulcahey MJ. Examining the Experiences of and Unmet Needs of Chassidic Mothers Raising a Child With Autism. Presented at the 2017 Annual Conference and Expo of the American Occupational Therapy Association. Philadelphia, PA. Mar. 30-Apr.2, 2017, Philadelphia, PA.   
13. Mulcahey MJ, Schmidt-Read M, Betz R, Vogel L, Thielen CC. Best practice for the neurological evaluation of children and youth with SCI. 2017 Annual Meeting of the American Spinal Injury Association, Albuquerque NM. April 25-29, 2017. Topics in SCI Rehab, 2017; 23(Sup 1):118-119.   
14. Mulcahey MJ & Slavin M. Selection, Administration and Scoring of the PEDI-AM. 2016 International Spinal Cord Society Annual Meeting. Vienna, Austria. Sept. 14-16, 2016.   
15. Calhoun Thielen CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP, Mulcahey MJ. Meeting of the Academy of SCI Professionals. Nashville TN, Sept. 3-7, 2016. Performance of the SCIM-III in youth with SCI. J Spinal Cord Medicine 39(5):563.   
16. Calhoun Thielen CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP, Mulcahey MJ. The WISCI-II in children and Youth with SCI. Meeting of the Academy of SCI Professionals. Nashville TN, Sept. 3-7, 2016J Spinal Cord Med 2016,9(5):552.   
17. Jakeman L, Charlifue S, Mulcahey MJ, Noonan V. Implementing the common data elements in clinical research activities. Neurotrauma Annual Meeting. Lexington, Kty., June 26-29, 2016.   
18. Mulcahey MJ, Calhoun CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP. Performance of the SCIM-III in youth with SCI. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1):32. (Award Eligible).   
19. Betz RR, Mulcahey MJ, Cuddihy L, Antonacci MD. A motion preserving surgical treatment for neuromuscular scoliosis: A case report. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1):42.   
20. Calhoun CL, Sadowsky C, Kozin S, Vogel LC, Davidson L, Bultman J, Taylor H, Gaughan JP, Mulcahey MJ. The WISCI-II in children and Youth with SCI. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1): 19-20.   
21. Krisa L, Saksena S, Middleton D, Sinko R, Conklin C, Gaughan J, Mulcahey MJ, Mohamed, F. Diffusion tensor imaging in the pediatric spinal cord. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1):18-19.   
22. Krisa L, Mulcahey MJ, Middleton D, Mohamen F, Zeffiro T. Alterations in resting state connectivity following pediatric spinal cord injury. Topics in Spinal Cord Injury Rehabilitation, 2016;22(S-1):21-22.   
23. Lesher D, Stanton-Berger D, Mulcahey MJ. Considerations around selection of outcome instruments in occupational therapy outpatient hand practice. Amer. Occupational Therapy Association Annual Meeting and Expos. Chicago, IL. Apr. 7-9, 2016.   
24. Mulcahey MJ, Slavin MD, Ni P, Vogel LC, Jette A. Participation trajectories in youth with and without spinal cord injury. Presented at the 2015 American Academy of Cerebral Palsy and Developmental Medicine. Austin Texas, October 23-25, 2015.   
25. Mahdi Alizadeh, Pallav Shah, Devon M Middleton, Chris J Conklin, Sona Saksena, Scott H Faro, Mulcahey MJ, Jürgen Finsterbusch, Mohamed FB. Ghost Artifact Removal Using Texture Analysis in Spinal Cord Diffusion Tensor Images. 23rd International Society for Magnetic Resonance in Medicine Annual Meeting. Toronto, May-June 2015   
26. Chris J Conklin, Devon M Middleton, Jürgen Finsterbusch, Mahdi Alizadeh, Scott H Faro, Pallav Shah, Laura Krisa, Rebecca Sinko, Joan Z Delalic, MJ Mulcahey, and Mohamed FB. Inner Field of View Diffusion Kurtosis Imaging (DKI) of the Pediatric Spinal Cord. 23rd International Society for Magnetic Resonance in Medicine Annual Meeting. Toronto, May-June 2015   
27. Mulcahey MJ, Calhoun C, Vogel LC, Kelly E. Development And Initial Validation Of The Spinal Cord Independence Measure-III --Youth (SCIM-III-Youth). 4rth ISCoS and ASIA Combine Scientific Meeting. Montreal, May 2015.   
28. Mulcahey MJ, Slavin M, Ni P, Vogel L, Calhoun C, Jette A. Development And Initial Evaluation Of The Pediatric Spinal Cord Injury Measures (PEDI-SCI) Short Forms. 4rth ISCoS and ASIA Combine Scientific Meeting. Montreal, May 2015.   
29. Mulcahey MJ, Sinko R, Martin R. Outcomes instruments in spinal cord injury. Presented at the 2015 Annual Meeting of the American Occupational Therapy Association. Nashville, TN. April 2015.   
30. Mahdi Alizadeh, Pallav Shah, Devon M Middleton, Chris J Conklin, Sona Saksena, Scott H Faro, MJ Mulcahey, Jürgen Finsterbusch, Mohamed FB. Adaptive Neuro-Fuzzy Inference System for Detection of Ghost Artifact Using Statistical Features. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
31. Sona Saksena, Devon M Middleton, Laura Krisa, Pallav Shah, Scott H Faro, Rebecca Sinko, MJ Mulcahey, John Gaughan, Jürgen Finsterbusch, Mohamed FB. Diffusion Tensor Imaging of the Cervical and Thoracic Pediatric Spinal Cord in Normal Subjects. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
32. Shiva Shahrampour, Devon M. Middleton, Winston Liu, Govind Nair, Steven Jacobson, Mahdi Alizadeh, John P. Gaughan, Pallav Shah, Scott H. Faro, Laura Krisa, MJ Mulcahey, Mohamed FB. Pediatric Spinal Cord Atrophy Imaging: Quantitative Measures in Normal and Patients with Spinal Cord Injury. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
33. Chris J Conklin, Devon M Middleton, Jürgen Finsterbusch, Mahdi Alizadeh, Scott H Faro, Pallav Shah, Laura Krisa, Rebecca Sinko, Joan Z Delalic, MJ Mulcahey, and Mohamed FB. Inner Field of View Diffusion Kurtosis Imaging (DKI) of the Pediatric Spinal Cord. Annual meeting of the American Society of Neuroradiology, Chicago, April 2015.   
34. Mulcahey MJ, Tian F, Jette A, Vogel LC. Linking pediatric and adult spinal cord injury outcome instruments. Presented at the American Academy for Cerebral Palsy and Developmental Medicine 68th Annual Meeting. Dev Med Child Neurol 2014: 56:37-38 (Suppl 5).   
35. Mulcahey MJ. Psychometric evaluation of the spinal cord independence measures-III. Presented at the 2014 ISCoS Annual Scientific Meeting, Maastricht, Netherlands. Sept. 2-4, 2014.   
36. Mulcahey MJ. Pediatric Spinal Cord Injury Rehabilitation. Presented at the 2014 ISCoS Annual Scientific Meeting, Maastricht, Netherlands. Sept. 2-4, 2014.   
37. Mulcahey MJ, Leah Bent, Lawrence Vogel. Psychometric evaluation of the spinal cord independence measures-III. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014. Topics in Spinal Cord Rehabilitation, 2014;20(suppl 1):64, Award Best Poster (Third Place, tie).   
38. Mulcahey MJ, Tian Feng, Alan Jette. Linking Pediatric and Adult Spinal Cord Injury Measures. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014. Topics in Spinal Cord Rehabilitation, 2014;20(suppl 1):59, Award Best Poster (Third Place, tie).   
39. Mulcahey MJ, Jette A, Kilsa P, Lammertse D, Tulsky D. Innovative Functional Outcomes for Spinal Cord Injury. Presented at the American Spinal Injury Association Annual Meeting. San Antonio, Texas. May 2014   
40. Mulcahey MJ. Outcomes Instruments for use in Pediatric SCI Rehabilitation. Presented at the American Congress of Rehabilitation Medicine. Orlando, FL. November 2013.   
41. Mulcahey MJ. Rehabilitation of Children with Spinal Cord Injury. Presented at the American Academy of Developmental Medicine and Child Neurology. Milwaukee, WI. October 2013.   
42. Barkat N, Mulcahey MJ, Gaughan JP, Shah P, Faro S, Samdani AF. Diagnostic Accuracy of DTI for Pediatric SCI. American Society of Neuroradiology. San Diego, CA, May 18-23, 2013.   
43. Barakat N, Covington A, Shah P, Faro S, Mulcahey MJ, Mohamed F. Correlation of pediatric spinal cord atropy measures with DTI metrics. American Society of Neuroradiology. San Diego, CA, May 18-23, 2013.   
44. Barakat N, Faro S, Shah P, Gaughan J, Mulcahey MJ, Mohamed F. Wallerian degeneration in pediatric spinal cord using diffusion tensor imaging. American Society of Neuroradiology. San Diego, CA, May 18-23, 2013.   
45. Mulcahey MJ. Neuromuscular Scoliosis in children with SCI. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
46. Mulcahey MJ, Bryden A, Scaffoild G, McClure I, Marino R. Principals of splinting the upper limb in persons with tetraplegia: A two part instructional course. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
47. Mulcahey MJ. Rehabilitation for SCI over the last four decades. Presented at the 2013 Annual Meeting of the American Spinal Injury Association. Chicago IL, May 11-18, 2013.   
48. Mulcahey MJ, Costner WJ. Computer adaptive testing: A primer for occupational therapists. Presented at the 2013 Annual Meeting of the American Occupational Therapy Association. San Diego, April 25-29, 2013.   
49. Barakat N, Covington A, Shah P, Faro S, Mulcahey MJ, Mohamed F. Correlation of pediatric spinal cord atropy measures with DTI metrics. American Physician Scientists Association. Chicago IL, April 25-28 2013.   
50. Barkat N, Mulcahey MJ, Gaughan JP, Shah P, Faro S, Samdani AF. Diagnostic Accuracy of DTI for Pediatric SCI. International Society for Magnetic Resonance in Medicine. Salt Lake City, Utah. April 20-26, 2013.   
51. Mulcahey MJ, Mohamed F. Diagnostic accuracy of DTI for pediatric spinal cord injury. 2012.   
52. Mulcahey MJ. Validity of a computer adaptive test of daily routines for child and parent reported outcomes after spinal cord injury. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012. Topics in SCI Rehabilitation 2013;19(1):171.   
53. Mulcahey MJ. Age at injury is not is not the only predictor of scoliosis in children with SCI. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012.   
54. Mulcahey MJ. Training in the international standards for neurological classification of SCI- Current methods and considerations when applied to children. 2012 Howard H. Steel Conference on Pediatric SCI. Orlando. December 2012.   
55. Mulcahey MJ. Management of the upper limb in children with tetraplegia. International Society Spinal Cord Injury. London. Sept. 2012.   
56. Mulcahey MJ, Mohamed F, Gaughan JP, Baraket N, Samdani A. The diagnostic accuracy of diffusion tensor imaging for spinal cord injury: preliminary analysis of sensitivity and specificity. Topics in Spinal Cord Injury Rehab, 18(supplement 1);202:2012.   
57. Russell H., Smith TF, Kelly E, Mulcahey MJ, Betz RR, Vogel L. An analysis of the Kidcope in pediatric SCI. Topics in Spinal Cord Injury Rehab, 18(supplement 1);252:2012.   
58. Calhoun C & Mulcahey MJ. Pilot study of the evaluation of the validity and reliability of the walking index for SCI II in young children with SCI. Topics in Spinal Cord Injury Rehab, 18(supplement 1);227:2012.   
59. Mulcahey MJ, Calhoun CC, Tian F, Vogel L, Haley SM. Validity of the newly developed computer adaptive tests of mobility, activity and participation. Topics in Spinal Cord Injury Rehab, 18(supplement 1);227:2012.   
  
Grants Awarded Last Five Years   
• The Pediatric Measure of Participation: A staging and Replenishment Study. Shriners Hospitals for Children, Principal Investigator, ($389,000)   
• Metal Artifact Characterization in Spinal Cord injury, Craig H. Nelsen Foundation, Collaborator, $300,000   
• Knowledge Translation of SCI Computer Adaptive Tests and Short Forms. Craig H. Neilsen Foundation, Quality of Life Sustainable Impact Projects, (2015-2018), Principal Investigator, $300,000   
• Pediatric Validation of the International SCI Data Sets. Rick Hansen Foundation. (2015-2018), Principal Investigator, $200,000   
• Patient Reported Outcomes in Duchene Muscular Dystrophy. Department of Defense. Co-Investigator. (2015-2018), $800,000   
• Pediatric Multi-Center Study Evaluation of Notable SCI Outcomes Instruments, Craig H. Neilsen Foundation (2014-2016), Principal Investigator, $600,000   
• Application 1 R01 NS079635-01A1 “Neuroimaging based on DTI as a biomarker for spinal cord injury in children.” National Institutes of Health (NIH), Acute Neural Injury and Epilepsy Study Section (ANIE) (2013-2018), Principal Investigator (multi-PI arrangement), $1,929,382.   
• Linking Pediatric Computer Adaptive Tests with Adult Computer Adaptive Tests, Shriners Hospitals for Children (2014-2016), Principal Investigator, $350,348.   
• Development of a Pediatric Neurorecovery Scale, Craig H. Neilsen Foundation (2013-2015), Consultant, $300,000, Sub-investigator   
• A Multi-Center Study of Computer Adaptive Testing Platform for the Assessment of Physical Function. Shriners Hospitals for Children – 2013-2015, Principal Investigator, $1,300,000.   
• Computer Adaptive Testing Scientific Forum/Spine Care Grant, Orthopaedic Research and Education Foundation (2011-2012), Co-Investigator, $40,000.   
• A Computer Adaptive Testing Platform for the Assessment of Physical Function. Shriners Hospitals for Children (2009-2012), Principal Investigator, $1,065,104.

***Christina Thielen,***   
Thomas Jefferson University

*(no CV uploaded)*

***Cristina Sadowsky, MD***  
Kennedy Krieger Institute

*(no CV uploaded)*

***Rebecca Martin, OTD***  
Kennedy Krieger Institute

*(no CV uploaded)*

***Lawrence Vogel,***   
Shriners Hospitals for Children

*(no CV uploaded)*

***Heather Taylor, PhD***  
Tirr Herman Memorial

*(no CV uploaded)*

***Loren Davidson, MD***  
Shriners Hospitals for Children Northern Ca

*(no CV uploaded)*

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**GRASSP Version 2: A comprehensive SCI upper limb outcome measure**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Sukhvinder Kalsi-Ryan, BScPT, MSc, PhD***  
Toronto Rehabilitation Institute - Uhn

**CV:**  
  
BIOGRAPHICAL SKETCH   
NAME: Sukhvinder Kalsi-Ryan   
MAIN AFFILIATIONS:   
• Scientist, Neural Engineering & Therapeutics Team, Toronto Rehab - UHN   
• Assistant Professor, Dept. of Physical Therapy, University of Toronto   
  
A. Personal Statement   
As an early career scientist at Toronto Rehabilitation Institute, I continue to focus my work on outcomes related initiatives in traumatic SCI and delve deeper into neuro-restoration for the upper limb in spine pathologies. I am the lead of the GRASSP research and development group. We continue to progress the work on GRASSP recently disseminating version 2 and implementing this version in two new clinical trials. Next steps related to GRASSP include version 2 validation studies and a new algorithm for predicting outcomes data. My more recent work is related to neuro-restoration for the upper limb for individuals with traumatic SCI, which entails the creation of a holistic approach to addressing the multi-factorial challenges related to implementation of best practice and best evidence. This work brings an international group of stakeholders together to first understand the challenges of knowledge translation/uptake and then follow with a strong collective initiative to build the body of knowledge, translate and facilitate implementation. The foundations for this work will be initiated and built in a new upper limb program devoted to neuro-restoration at Toronto Rehabilitation Institute. In addition to SCI related outcomes and upper limb work, I continue to work with the spine surgery and parkinson’s disease groups at Krembil Neuroscience to facilitate and implement more appropriate and sensitive outcomes into daily clinical practice. Which will develop practice based research programs. Clinicians in these practice based research programs would then benefit from improved outcomes use to implement informed clinical decision-making.   
  
As a licensed physical therapist I have been involved in the rehabilitation care of both ambulatory and non-ambulatory patients. My research training (MSc, PhD, PDF) has provided me with a wide range of experience with individuals with neurological diseases, strong skills in outcomes development and a solid understanding of how to design and execute clinical research studies. My skills as a clinician, researcher in outcomes development and execution of multi-center research studies will be valuable in my work going forward. My new role as a program director of the new Rocket Family Neuro-Restorative Upper Limb Center of Excellence at Lyndhurst is an ideal platform to build this research study into. The center of excellence is a venue where not only treatment for patients will occur, it will also be the primary venue for individuals with upper impairments to be reviewed and offered opportunities which are not yet available within in all rehabilitation programs. My more recent position at Toronto Rehabilitation Institute in the REL lab, where I now collaborate on a regular basis with a large rehabilitation team and neuro-engineers, which, will enable me to lead this project with appropriate support. Our goal in this new upper limb program is to make available more opportunity for individuals to have access to new and existing innovations embedded into therapeutic programming   
  
  
  
  
  
  
  
  
  
B. Positions and Honours   
Date(s) Positions/Honors   
02/2017-present Clinician Scientist, Toronto Rehabilitation Institute, UHN, Rehailitation Engineering Lab, Toronto, Canada   
07/2016-present Assistant Professor, University of Toronto, Department of Physical Therapy   
07/2015-12/2016 Clinician Scientist, Krembil Neuroscience Program, Toronto Western Hospital, Toronto, Canada   
09/2010-06/2015 Postdoctoral Fellow, Krembil Neuroscience Program, Toronto Western Hospital University of Toronto, Toronto, Canada   
07/2005-08/2010 Research Physical Therapist, Krembil Neuroscience Program, Toronto Western Hospital, Toronto, Canada   
04/1999-06/2016 Clinical Instructor Faculty, Department of Physical Therapy, University of Toronto, Canada   
05/1998-12/2017 Licensed Physical Therapist, Neurosurgery, Division of Spine, Toronto Western Hospital, Toronto, Canada   
06/1995-05/1998 Licensed Physical Therapist, Various Institutions/Neurological Populations, Toronto, Canada   
05/1995 – present Licensed Physical Therapist, College of Physiotherapists of Ontario, Toronto, Canada   
  
C. Published Refereed Manuscripts   
1. Martin AR, De Leener B, Cohen-Adad J, Cadotte DW, Kalsi-Ryan S, Lange SF, Tetreault L, Nouri A, Crawley A, Mikulis DJ, Ginsberg H, Fehlings MG. Clinically Feasible Microstructural MRI to Quantify Cervical Spinal Cord Tissue Injury Using DTI, MT, and T2\*-Weighted Imaging: Assessment of Normative Data and Reliability. AJNR AM J Neuroradiol. 2017 April 20, 10.3174/ajnr.A5163.   
2. Zariffa J, Curt A, Verrier MC, Fehlings MG, Kalsi-Ryan S, GRASSP Cross-Sectional Study Team and Ontario GRASSP Longitudinal Study Team, “Predicting task performance from upper extremity impairment measures after cervical spinal cord injury,” Spinal Cord. 2016 Dec; 54(12):1145-1151. doi: 10.1038/sc.2016.77.   
3. Kalsi-Ryan S, Beaton D, Ahn H, Askes H, Drew B, Curt A, Popovic M, Wang J, Verrier M, Fehlings M. Responsiveness, Sensitivity and Minimally Detectable Difference of the Graded and Redefined Assessment of Strength, Sensibility, and Prehension, Version 1.0 (GRASSP V1). J Neurotrauma. 2015 Nov 11.   
4. Velstra IM, Curt A, Frotzier A, Abel R, Kalsi-Ryan S, Rietman JS, Bolliger M. Changes in Strength, Sensation and Prehension in Acute Cervical Spinal Cord Injury: European Multicenter Responsiveness Study of the GRASSP. Neurorehabil Neural Repair. 2015 Sept 29 (8)755-766. PMID: 25567122.   
5. Kopjar B, Tetreault L, Kalsi-Ryan S, Hanson B, Fehlings MG. Psychometric Properties of the Modified Japanese Orthopaedic Association Scale in Patients with Cervical Spondylotic Myelopathy: A Multicenter, Prospective AO Spine North American Study. Spine (Phila Pa 1976). 2015 Jan 1;40(1) E23-8. PMID: 25341993.   
6. Singh A, Tetreault L, Kalsi-Ryan S, Nouri A, Fehlings MG. Global prevalence and incidence of traumatic spinal cord injury. Clin Epi. 2014 Sept 23;6:309-31. PMID: 25278785.   
7. Kalsi-Ryan S, Beaton D, Curt A, Popovic MR, Verrier MC, Fehlings MG. Outcome of the upper limb in cervical spinal cord injury: Profiles of recovery and insights for clinical studies. J Spinal Cord Med. 2014 Sep;37(5):503-10. PMID: 25229734.   
8. Wilson JR, Fehlings MG, Kalsi-Ryan S, Shamji MF, Tetreault LA, Rhee JM, Chapman JR. Diagnosis, heritability, and outcome assessment in cervical myelopathy: a consensus statement. Spine (Phila Pa 1976). 2013 Oct 15;38(22 Suppl 1):S76-7. PMID: 23963010.   
9. Kalsi-Ryan S, Singh A, Massicotte EM, Arnold PM, Brodke DS, Norvell DC, Hermsmeyer JT, Fehlings MG. Ancillary outcome measures for assessment of individuals with cervical spondylotic myelopathy. Spine (Phila Pa 1976). 2013 Oct 15;38(22 Suppl 1):S111-22. PMID: 23963009.   
10. Rhee JM, Shamji MF, Erwin WM, Bransford RJ, Yoon ST, Smith JS, Kim HJ, Ely CG, Dettori JR, Patel AA, Kalsi-Ryan S. Nonoperative management of cervical myelopathy: a systematic review. Spine (Phila Pa 1976). 2013 Oct 15;38(22 Suppl 1):S55-67. PMID: 23963006.   
11. Kalsi-Ryan S, Beaton D, Curt A, Duff S, Jiang D, Popovic MR, Rudhe C, Fehlings MG, Verrier MC. Defining the Role of Sensation, Strength, and Prehension for Upper Limb Function in Cervical Spinal Cord Injury. Neurorehabil Neural Repair. 2013 Jun 18. PMID: 23778700.   
12. Kalsi-Ryan S, Wilson J, Yang JM, Fehlings MG. Neurological Grading in Traumatic Spinal Cord Injury. World Neurosurg. 2013 Jan 5. pii: S1878-8750(13)00014-4. PMID: 23298673.   
13. Steeves JD, Lammertse DP, Kramer JL, Kleitman N, Kalsi-Ryan S, Jones L, Curt A, Blight AR, Anderson KD.Outcome Measures for Acute/Subacute Cervical Sensorimotor Complete (AIS-A) Spinal Cord Injury During a Phase 2 Clinical Trial. Top Spinal Cord Inj Rehabil. 2012 Winter;18(1):1-14. Epub 2012 Jan 31. PMID: 23239927.   
14. Kalsi-Ryan S, Karadimas SK, Fehlings MG. Cervical spondylotic myelopathy: the clinical phenomenon and the current pathobiology of an increasingly prevalent and devastating disorder. Neuroscientist. 2013 Aug;19(4):409-21. PMID: 23204243   
15. Kalsi-Ryan S, Curt A, Verrier MC, Fehlings MG. Development of the Graded Redefined Assessment of Strength, Sensibility and Prehension (GRASSP): reviewing measurement specific to the upper limb in tetraplegia.J Neurosurg Spine. 2012 Sep;17(1 Suppl):65-76. PMID: 22985372.   
16. Wilson JR, Arnold PM, Singh A, Kalsi-Ryan S, Fehlings MG. Clinical prediction model for acute inpatient complications after traumatic cervical spinal cord injury: a subanalysis from the Surgical Timing in Acute Spinal Cord Injury Study. J Neurosurg Spine. 2012 Sep;17(1 Suppl):46-51. PMID: 22983570.   
17. Kalsi-Ryan S, Beaton D, Curt A, Duff S, Popovic MR, Rudhe C, Fehlings MG, Verrier MC. The Graded Redefined Assessment of Strength Sensibility and Prehension: reliability and validity. J Neurotrauma. 2012 Mar 20;29(5):905-14. PMID: 22942526.   
18. Kalsi-Ryan S and Verrier MC. A Synthesis of Best Evidence for the Restoration of Upper Extremity Function in People with Tetraplegia. Physiotherapy Canada, 2011 Fall; 63(4): 474-89 [Epub 2011 October 20]. PMID: 22942526   
19. Kalsi-Ryan S, Curt A, Fehlings, MG and Verrier MC. Assessment of the Hand in Tetraplegia Using the Graded Redefined Assessment of Strength Sensibility and Prehension (GRASSP): Impairment versus Function. Top Spinal Cord Inj Rehabil (2009); 14(4):34-46.   
20. Mikulis D, Jurkiewicz MT, McIlroy WE, Staines R, Rickards L, Kalsi-Ryan SK, Crawley AP, Fehlings MG, Verrier MC. Adaptation in the Motor Cortex Following Cervical Spinal Cord Injury. Neurology (2002), 58, 794-804. PMID: 11889245   
  
D. Funding   
1. Elucidating the mechanisms of loss of manual dexterity related to cervical spondylotic myelopathy in humans; Funding Source: AO Spine North America Young Investigator’s Award   
Period: 03/2015 – 02/2016, Amount: $30,000.00; Primary Investigator: S Kalsi-Ryan   
2. Hyperbaric Oxygen Therapy in Stroke for Recovery; Funding Source: AFP-AMO   
Period: 03/2015 – 02/2017, Amount: $175,000.00; Primary Investigator: R. Katznelson, Co-PI: S. Kalsi-Ryan   
3. Adaptive/Closed Loop vs. Continuous/Open Loop Deep Brain Stimulation of Subthalamic Nucleus: a Two-Phase, Cross-Over, Double-Blind Trial In Patients With Parkinson’s Disease; Funding Source: Weston Foundation   
Period: 01/2015 – 12/2016, Amount: $650.000.00; Primary Investigator: A. Fasano, Co-I: S Kalsi-Ryan   
4. Automated summarization of wearable video to evaluate functional outcomes in the upper limb after tetraplegia; Funding Source: Rick Hansen Institute   
Period: 01/2015 – 04/2016, Amount: $75,000.00; Primary Investigator: J. Zariffa, Co-PI: S. Kalsi-Ryan   
5. Evaluating Cervical Spondylotic Myelopathy (CSM) through Novel Sensitive Upper Limb and Gait Assessments: Elucidating the mechanisms of disrupted manual dexterity and locomotion in humans.   
Funding Source: Cervical Spine Research Society   
Period: 01/2014 – 04/2015, Amount: $25,000.00; Primary Investigator: S Kalsi-Ryan, Co-I: S Karadimas, MG Fehlings   
6. Restoration of Upper Limb Function in Individuals with Sub-Acute Spinal Cord Injury; Funding Source: Rick Hansen Institute   
Period: 01/2011 – 12/2014, Amount: $466,647.00; Primary Investigator: Milos Popovic, Co-I: M Verrier, D Gagnon, C O’Connell, S Kalsi-Ryan, A Prochazka

***Urs Albisser, BScOT***  
University Hospital, Balgrist

*(no CV uploaded)*

***Michael Fehlings, MD, PhD***  
Toronto Western Hospital - Uhn

*(no CV uploaded)*

***Armin Curt, MD***  
University Hospital, Balgrist

*(no CV uploaded)*

***Molly Verrier, DipPT, MHSc***  
University of Toronto

*(no CV uploaded)*

***Carolina Fellinghauer, PhD***  
Swiss Paraplegic Research, Icf Unit; University Lucerne, Department of Health Science and Health Policy

*(no CV uploaded)*

***Inge-Marie Velstra, BScOT, PhD***  
Swiss Paraplegic Centre Nottwil, Clinical Trial Unit

*(no CV uploaded)*

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**Development of the International SCI Basic Data Set for Caregivers: Capturing data beyond the person with SCI/D**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Carol Haywood, OTR/L***  
University of Southern California

**CV:**  
Research and Grant Activity:   
  
• Daily Living and Participation for Adolescents and Young Adults with a Spinal Cord Injury. Narrative, phenomenological research to better understand daily living and participation in hospital, home, and community settings for adolescents and young adults with a spinal cord injury, as well as their caregivers.   
o Role: Principal Investigator (Active Dissertation Study)   
o Dissertation Committee: Mary Lawlor, ScD, OTR/L, FAOTA (Chair); Elizabeth Pyatak, PhD, OTR/L, CDE; Natalie Leland, PhD, OTR/L, BCG, FAOTA; & Benjamin Henwood, PhD   
o Funding:   
♣ California Foundation for Occupational Therapy Research Grant ($4,500), October 2016   
♣ Society for the Study of Occupation: USA Student Research Grant in Occupational Science ($600), September 2016   
Dec 2015 - present   
• Developing Meaningful Research for Adolescents and Young Adults with Chronic Conditions. Community engagement and research planning involving adolescents and young adults with chronic conditions.   
o Role: Principal Investigator   
o Funding:   
♣ Patient-Centered Outcomes Research Institute (PCORI), Pipeline-to-Proposal Tier III Award (Contract #3414629: $50,000, Aug 2017 – July 2018)   
♣ PCORI, Pipeline-to-Proposal Tier II Award (Contract #3414629: $24,994, May 2016 – April 2017)   
♣ PCORI, Pipeline-to-Proposal Tier I Award (Contract #3414629: $14,950, May 2015 – Jan 2016)   
May 2015 - present   
  
• Identifying Risk Factors for Harm in Children on Invasive Home Medical Therapies. (SC CTSI Grant 8L1TR000130) Interdisciplinary study examining home care and risk reduction for children and families using mechanical ventilation or parenteral nutrition.   
o Role: Research Assistant   
o Principal Investigator: Glenn Takata, MD May 2014 - present   
• Boundary Crossings. (R01 HD38878) 15-year ethnographic study to explore experiences of African American families in and around Los Angeles, who are caring for a child with special health care needs.   
o Role: Research Assistant   
o Principal Investigators: Mary Lawlor, ScD, OTR/L, FAOTA, & Cheryl Mattingly, PhD   
Aug 2013 - present   
  
Refereed Research Presentations:   
  
• Haywood, C., & Lawlor, M. C. Participation for adolescents and young adults with spinal cord injury. Paper – Occupational Therapy Summit of Scholars, Boston, MA. June 2017   
• Haywood, C., & Bashar, J. Developmental considerations for rehabilitation: Learning from perspectives of adolescents and young adults with spinal cord injuries. Poster –American Spinal Injury Association, Howard H. Steel Pre-Conference Course, Albuquerque, NM. April 2017   
• Haywood, C., & Lawlor, M. Understanding complex relationships among transitional-aged youth with a spinal cord injury and their caregivers. Paper – American Occupational Therapy Association Annual Conference, Philadelphia, PA. April 2017   
• Carandang, K., Pyatak, E., Cabrera, E., Fung, N., Martinez, G., Ramirez, C., & Haywood, C. Research with, and for, adolescents and young adults with chronic conditions. Paper – Patient and Family-Centered Care Conference, Los Angeles, CA. Feb 2017   
• Carandang, K., Bashar, J., Cox, L., Díaz, J., Pyatak, E., & Haywood, C. Reviewing the utility of working with adolescents and young adults with chronic conditions in research planning. Poster – Patient-Centered Outcomes Research Institute Annual Meeting, National Harbor, MD. Nov 2016   
• Haywood, C. Perceptions of recovery among adolescents and young adults with acquired spinal cord injuries. Poster – American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL. Oct 2016   
• Haywood, C. Pulled from the streets: Quest narratives among young men with violently-acquired spinal cord injuries. Poster – Society for the Study of Occupation: USA and Canada Joint Conference in Occupational Science, Portland, ME. Sept 2016   
• Haywood, C. “We need you:” When research participation enacts a way to care for the self. Paper – Society for the Study of Occupation: USA and Canada Joint Conference in Occupational Science, Portland, ME. Sept 2016   
• Haywood, C. Conceptualization and utilization of caregivers in everyday life for emerging adults with spinal cord injuries. Poster – Occupational Therapy Summit of Scholars, Pittsburgh, PA. May 2016   
• Carandang, K., Haywood, C., Hoffman, S., & Pyatak, E. Developmentally appropriate occupational therapy for transition-age youth: Perspectives from diverse practice areas. Poster – American Occupational Therapy Association Annual Conference, Chicago, IL. April 2016   
• Haywood, C., & Carandang, K. Synthesizing perspectives on developmentally appropriate occupational therapy for transition-age youth. Poster – Herman Ostrow School of Dentistry Research Day, Los Angeles, CA. March 2016   
• Haywood, C., & Lawlor, M. C. Reflecting on research design: Early lessons learned from the application of a strengths-based approach to understanding risks for families managing high-intensity medical therapies at home. Paper – Occupational Therapy Summit of Scholars, Los Angeles, CA. May 2015   
• Haywood, C. A qualitative synthesis of narrative research in spinal cord injury rehabilitation. Poster – Occupational Therapy Summit of Scholars, Los Angeles, CA. May 2015   
• Carandang, K., Cogan, A., Haywood, C., Kilroy, E., Sleight, A., & Florindez, L. Linking neuroscience research to occupational therapy theory and practice. Poster – American Occupational Therapy Association Annual Conference, Nashville, TN. April 2015   
• Haywood, C. Emotional work in rehabilitation: Lessons learned through reflexive practice. Poster – American Occupational Therapy Association Annual Conference, Nashville, TN. April 2015   
• Lawlor, M. C., Elliot, M., & Haywood, C. Bridging the individual-collective divide: Examination of “mid-range” social analytic units. Paper – Society for the Study of Occupation: USA and Canada Joint Conference in Occupational Science, Minneapolis, MN. Oct 2014   
• Haywood, C., & Lawlor, M. Approaching stigma: The challenge of social experiences for children with disabilities. Paper – Occupational Therapy Summit of Scholars, Philadelphia, PA. May 2014   
• Lawlor, M. C., Mattingly, C., Elliot, M., & Haywood, C. The interrelatedness of narrative, health, and healing. Poster – Jacquelin Perry Research Day, University of Southern California Institute for Integrative Health, Los Angeles, CA. April 2014   
• Haywood, C. E., & Lawlor, M. C. The challenge of social experience for children with disabilities. Poster – Herman Ostrow School of Dentistry Research Day, Los Angeles, CA. March 2014   
  
Published Abstracts:   
  
• Haywood, C. (2017). Complex narratives among individuals with spinal cord injuries from gunshots. Explorer, 9, 69. Proceedings of Herman Ostrow School of Dentistry Research Day, Los Angeles, CA.   
• Haywood, C. (2016). Perceptions of recovery among adolescents and young adults with acquired spinal cord injuries. Archives of Physical Medicine and Rehabilitation, 97(10), e76. Proceedings of American Congress of Rehabilitation Medicine Annual Meeting, Chicago, IL.   
• Haywood, C., & Carandang, K. (2016). Synthesizing perspectives on developmentally appropriate occupational therapy for transition-age youth. Explorer, 8, 68. Proceedings of the Herman Ostrow School of Dentistry Research Day, Los Angeles, CA.   
• Haywood, C. (2015). A qualitative synthesis of narrative research in spinal cord injury rehabilitation. Explorer, 7, 55. Proceedings of the Herman Ostrow School of Dentistry Research Day, Los Angeles, CA   
• Haywood, C. E., & Lawlor, M. C. (2014). The challenge of social experience for children with disabilities. Explorer, 6, 64. Proceedings of the Herman Ostrow School of Dentistry Research Day, Los Angeles, CA.   
  
Teaching Experience:   
  
• Clinical Reasoning (OT 521), University of Southern California   
o 3-credit course in the MA of Occupational Therapy program focused on examining interrelationships of theory and practice with particular attention to how professional knowledge is created and applied and how narratives can be incorporated in clinical reasoning. Spring 2015   
  
Research-Related Awards and Scholarships:   
  
• Occupational Therapy Summit of Scholars Student Award - June 2017   
• Patient-Centered Outcomes Research Institute Annual Meeting Scholarship - Nov 2016   
• University of Southern California Graduate School Travel Award - Oct 2016   
• Occupational Science and Occupational Therapy 2nd Place Research Poster Award, Herman Ostrow School of Dentistry Research Day, Los Angeles, CA - March 2015   
• J. Matsutsuyu Scholarship, California Foundation for Occupational Therapy - June 2014   
• Occupational Science and Occupational Therapy 2nd Place Research Poster Award, Herman Ostrow School of Dentistry Research Day, Los Angeles, CA - March 2014   
  
Clinical Experience:   
  
• Rehabilitation Institute of Chicago, Chicago, IL   
o Occupational Therapist in Inpatient Care and Pediatric Rehabilitation. List of Advanced Clinical Skills and Certifications Available Upon Request.   
2009 - 2013   
  
Professional Registration, Licensure:   
  
• National Board Certification in Occupational Therapy (255693) Aug 2009 – present   
• California – Occupational Therapy License (14141) Jan 2014 – present   
• Illinois – Occupational Therapy License (056008798) 2009 – 2015   
  
Current Professional Memberships:   
  
• American Spinal Injury Association - Joined Jan 2017   
• American Congress of Rehabilitation Medicine (113500) - Joined June 2016   
• Occupational Therapy Association of California (1793920) - Joined March 2014   
• Society for the Study of Occupation: USA - Joined Nov 2013   
• American Occupational Therapy Association (000004274446) - Joined July 2006   
  
Manuscripts in Preparation:   
  
• Haywood, C., & Lawlor, M. C. Using multiple perspectives to understand experience: Caregiving as an exemplar.   
• Haywood, C. Complex relationships among adolescents and young adults with a spinal cord injury and their caregivers.   
• Haywood, C. Developmental considerations for adolescents and young adults in rehabilitation: Learning from perspectives of young people with spinal cord injuries.   
• Haywood, C., & Lawlor, M. C. A qualitative study of daily living and participation among adolescents and young adults with a spinal cord injury and their caregivers.   
• Haywood, C., Díaz, J., & Lawlor, M. C. Family experiences of managing care for children using invasive medical therapies in the home: Opportunities for occupational therapy.

***Rebecca Martin, OTR/L, OTD, CPAM***  
Kennedy Krieger Institute

**CV:**  
Professional Experience:   
Feb.—Dec. 2001 Occupational Therapist   
Easter Seals Society of Massachusetts, Boston and Worcester Regions   
  
Jan.—Jun. 2002 Occupational Therapist   
The Learning Prep School, Newton, Massachusetts   
  
Jun. 2002— Jun. 2005 Occupational Therapist   
The May Institute, Brockton, Massachusetts   
  
Jun. 2005— Jun. 2010 Senior Occupational Therapist   
The International Center for Spinal Cord Injury at Kennedy Krieger Institute   
  
Jun. 2010— current Manager of Clinical Education and Training   
The International Center for Spinal Cord Injury at Kennedy Krieger Institute   
  
    
RESEARCH ACTIVITIES   
Publications (Peer-reviewed)   
  
1. Martin R, Johnston K, Sadowsky C. Neuromuscular Electrical Stimulation-Assisted Grasp Training and Restoration of Function in the Tetraplegic Hand: A Case Series. Am J Occup Ther. July-August 2012: 66(4): 471-477   
  
Extramural Funding   
Jan. 2014—Dec. 2016 “Pediatric Multi-Center Evaluation of Notable SCI Outcomes Instruments”. Craig H Neilsen Foundation Grant by Dr. Mulcahey, Thomas Jefferson University, $600,000, Site Investigator, 10% effort   
  
Jan. 2014—Dec. 2016 “Linkage Between Pediatric and Adult SCI Computer Tests”. Shriners Hospital for Children Grant by Dr. Mulcahey, Thomas Jefferson University, $100,000, Site Investigator, 10% effort   
  
  
EDUCATIONAL ACTIVITIES   
Educational Publications   
Peer Reviewed Publications (i.e. consensus statements, expert opinions)   
  
1. Martin R, Sadowsky C, Obst K, Bamford B, McDonald J. Functional Electrical Stimulation in SCI: From Theory to Practice. Topics in Spinal Cord Injury Rehabilitation. 2012;18(1):28–33.   
  
2. Martin R, Silvestri J. Current Trends in the Management of Upper Limb in Spinal Cord Injury. Curr Phys Med Rehabil Rep. 2013; 1:178-186 DOI 10.1007/s40141-013-0020-3   
  
3. Mertins R, Martin R, Sadowsky C, McDonald J, Becker D. Application of Aquatic Therapy to a Land Therapy Program Emphasizing Gait and Balance Training in an Adult with Neuromyelitis Optica: A Case Report. Journal of Aquatic Physical Therapy. 2014: 22(1):2-10   
  
4. Dolbow DR, Gorgey AS, Recio AC, Stiens SA, Curry AC, Sadowsky CL, Gater DR, Martin R, McDonald JW. (2015) Activity-Based Restorative Therapies after Spinal Cord Injury: Inter-institutional conceptions and perceptions. Aging and Disease. 2015: 6(4): 254-261.   
  
5. Bosques G, Martin R, McGee L, Sadowsky C. Does therapeutic electrical stimulation improve function in children with disabilities? A comprehensive literature review. J of Pediatric Rehabilitation Medicine: An Interdisciplinary Approach. 2016: 9: 83–99.   
  
6. Mulcahey MJ, Vogel LC, Sheikh M, Arango-Lasprilla JC, Augutis M, Garner E, Hagen EM, Jakeman LB, Kelly E, Martin R, Odenkirchen J, Scheel-Sailer A, Schottler J, Taylor H, Thielen CC, Zebracki K. Recommendations for the National Institute for Neurologic Disorders and Stroke spinal cord injury common data elements for children and youth with SCI. Spinal Cord. 2016: In press. doi:10.1038/sc.2016.139   
  
Case Reports   
1. Mertins R, Martin R, Sadowsky C, McDonald J, Becker D. Application of Aquatic Therapy to a Land Therapy Program Emphasizing Gait and Balance Training in an Adult with Neuromyelitis Optica: A Case Report. Journal of Aquatic Physical Therapy. 2014: 22(1):2-10.   
  
Other Media (films, videos, CD-ROMS, slide sets, etc.)   
1. Martin R, Schramm L. Science of Activity-Based Restorative Therapy. December 2012. Available at http://elearning.kennedykrieger.org/course/view.php?id=47 Accessed Feb. 20, 1013.   
  
2. Recio A, Martin R. Principles of Medical Management of Chronic Spinal Cord Injury. December 2012. Available at http://elearning.kennedykrieger.org/course/view.php?id=47 Accessed Feb. 20, 2013.   
  
3. Recio A, Martin R. Medical Examination. December 2012. Available at http://elearning.kennedykrieger.org/course/view.php?id=47 Accessed Feb. 20, 2013.   
  
4. Martin R, Meyer B, Obst K. Components of Activity-Based Restorative Therapy. December 2012. Available at http://elearning.kennedykrieger.org/course/view.php?id=47 Accessed Feb. 20, 2013.   
  
Teaching   
CME/CEU Instruction   
  
Tucker C, Martin R, Hutchinson D, Bell A. Upper Extremity Management in Tetraplegia: Injury prevention and muscle re-education for the shoulder complex. The Howard H. Steel Conference on Injuries and Dysfunction of the Spinal Cord in Children, Shriners Hospital for Children, Orlando, Florida, December 2006.   
  
Martin R, Cameron K, McDonald J. NMES Assisted Grasp Training and Restoration of Function in the Tetraplegic Hand: A Case Study Series. The International Meeting of Upper Extremity Management in Tetraplegia, Shriners Hospital for Children, Philadelphia, Pennsylvania, September 2007.   
  
Myers B, Martin R. Clinical Improvements in a Patient with Normal Pressure Hydrocephalus Status-post Lumbar Puncture and Ventriculoperitoneal Shunt Placement (poster). American Society for Neuro-Rehabilitation, Washington, D.C., October 2007.   
  
Martin R, Cameron K. Therapeutic Electrical Stimulation: Uses, Indications, and Precautions. The Children’s Institute, Pittsburgh, Pennsylvania, January 2008.   
  
Cameron K, Martin R. Applications of Neuromuscular Electrical Stimulation for the Upper Extremity. The American Occupational Therapy Association Annual Conference and Expo, Long Beach, California, April 2008.   
  
Martin R, Obst K. Rehabilitation, Disability and Participation: Activity-Based Restorative Therapy and Aquatics (Invited presenter). AOTA Student Conclave, Baltimore, Maryland, November 2009.   
  
Dean J, Martin R, McDonald J, Becker D. Persistent Isolated Unilateral Upper Extremity Paresis: A Unique Complication of Cervical Transverse Myelitis [poster]. The Howard H. Steel Conference on Injuries and Dysfunction of the Spinal Cord in Children, Shriners Hospital for Children, Orlando, Florida, December 2009.   
  
Sadowsky C, Martin R, Bamford B, Mulcahey M. New Approaches In Pediatric SCI: From Compensation Toward Restoration. American Association of Physical Medicine and Rehabilitation Annual Meeting, Seattle, Washington, November 2011.   
  
Martin R, Meyer B, Obst K, Sadowsky C, McDonald J. Functional Electrical Stimulation in SCI: From theory to practice. American Spinal Injury Association/ International Spinal Cord Society Annual Meeting, Washington D.C., June 2012.   
  
Wallace N, Martin R, Recio A. Use of High Voltage Electrical Stimulation for Healing of Recalcitrant Pressure Ulcer on Patient with SCI [poster]. American Spinal Injury Association/ International Spinal Cord Society Annual Meeting, Washington D.C., June 2012.   
  
Sadowsky C, Martin R, McDonald J. Activity-Based Restorative Therapy in Pediatric Transverse Myelitis: A Retrospective Cohort Analysis. Howard H Steel Conference: Pediatric Spinal Cord Injuries and Dysfunction, Lake Buena Vista Florida, December 2012.   
  
Bosques G, Behrman A, Bourque M, MacDonald K, Martin R. Therapeutic Interventions in Pediatric Spinal Cord Injury. American Academy of Physical Medicine and Rehabilitation Annual Meeting, Washington D.C., October 2013.   
  
Reidy T, Martin R. Setting Ourselves Up for Success: A Formula for Increasing Research Activities in the Clinic. American Occupational Therapy Association Annual Meeting, Baltimore, MD April 2014.   
  
Martin R, Silvestri J. Functional Electrical Stimulation: Driving Upper Extremity Recovery in Neurological Injury. American Occupational Therapy Association Annual Meetng, Nashville, TN, April 2015   
  
Martin R, Silvestri J. Activity-Based Interventions for Brachial Plexus Injury Throughout the Lifespan. American Occupational Therapy Association Annual Meetng, Nashville, TN, April 2015   
  
Mulcahey MJ, Martin R, Sinko R, Schaaf R. Measurement and Outcomes Instruments in Pediatrics. American Occupational Therapy Association Annual Meetng, Nashville, TN, April 2015   
  
Martin R, Silvestri J, Sadowsky C. Evidence-Based Guidelines for Improving the Efficacy of Interventions with FES Devices. Academy of Spinal Cord Injury Professionals Annual Meeting, New Orleans, LA, September 2015.   
  
Silvestri J, Martin R. Activity-Based Rehabilitation for High Cervical Injuries: Who, What, and Why. Academy of Spinal Cord Injury Professionals Annual Meeting, New Orleans, LA, September 2015.   
  
Martin R, Silvestri J. Blending Occupation-Based and Activity-Based Interventions for Meaningful Change in Neurorehabilitation. American Occupational Therapy Association Annual Meeting, Chicago, IL, April 2016.   
  
Martin R, Bourne P, Meyer S, Sadowsky C. Evaluation of Metabolic Demands of FES-Assisted Exercise in Patients with Chronic Tetraplegia. American Spinal Injury Association Annual Meeting, Philadelphia, PA, April 2016.   
  
  
Workshops/Seminars   
  
Oct. 13, 2011 Activity-Based Restorative Therapy, Level 2, 1-day Instructor; Boston VA Medical Center, West Roxbury, MA   
Nov. 17, 2011 Activity-Based Restorative Therapy, Level 2, 1-day Instructor; Hunter Holmes McGuire VA Medical Center, Richmond, VA   
Feb. 1-2, 2013 Activity-Based Rehabilitation in Neurorehabilitation Instructor; Burke Hospital, White Plains, NY   
Feb 25, 2013 Progressive, Evidence-Based Neurorehabilitation: Activity-Based Restorative Therapy, Seattle, WA   
Jul 13, 2013 Functional Electrical Stimulation Principles and Application; Shriners Hospital for Children, Houston, TX   
Sept 14-15, 2013 Progress in Practice: Activity-Based Restorative Therapy; Vanderbilt Medical Center, Nashville, TN   
Feb 22-23, 2014 Progress in Practice: Activity-Based Restorative Therapy; Tampa General Hospital, Tampa, FL   
Sept 25-26, 2014 Progress in Practice: Activity-Based Restorative Therapy; Kennedy Krieger Institute, Baltimore, MD   
Jan 27, 2015 “From Compensation to Restoration: Activity-Based Therapy and Spinal Cord Injury” for www.occupationaltherapy.com   
Aug 11, 2015 “Pediatric Outcome Measures in Neurorehabilitation” for www.occupationaltherapy.com   
Aug 25, 2015 “Shoulder Preservation in Spinal Cord Injury” for www.occupationaltherapy.com   
Sept 25-26, 2015 Progress in Practice: Activity-Based Restorative Therapy; Kennedy Krieger Institute, Baltimore, MD   
Oct 3-4, 2015 Progress in Practice: Activity-Based Restorative Therapy, TIRR Memorial Hermann Hospital, Houston, TX   
Oct 23, 2015 Progress in Practice: Activity-Based Restorative Therapy, Transverse Myelitis Association Annual Meeting, Dallas, TX   
Apr 26, 2016 “Stick It: Kinesiotaping Applications To Augment Neuro-Interventions” for www.occupationaltherapy.com   
  
Mentoring   
  
Educational Program Building/Leadership   
Prepared documents to provide patients and caregivers with instruction and education on relevant spinal cord injury-related topics: Autonomic Dysreflexia, Activity-Based Restorative Therapy, Orthostatic Hypotension, Pressure Ulcers   
  
Jun. 18-22, 2011 Structured, executed, and provided oversight for fellowship training for trainees from partner VA sites.   
  
Educational Extramural Funding   
Sep. 2008—Aug. 2011 “Advanced Restoration Therapies in Spinal Cord Injury” Department of Defense W81XWH-08-2-0192 (PI McDonald) $1,149,000; Co-Investigator Aims 1&5   
  
Sep. 2009—Mar. 2013 “Advanced Restoration Therapies in Spinal Cord Injury” Department of Defense W81XWH-09-2-0186 CLIN0001(PI McDonald) $2,552,000; Co-Investigator Aims 1&5   
  
Apr. 2010—Mar. 2012 “Advanced Restoration Therapies in Spinal Cord Injury” Department of Defense W81XWH-09-2-0186 CLIN0002 (PI McDonald) $1,500.000; Co-Investigator Aims 1&5   
  
Sep. 2010—Sep. 2013 “Advanced Restoration Therapies in Spinal Cord Injury” Department of Defense W81XWH-10-2-0182(PI McDonald) $3,196,962; Co-Investigator Aims 1&5   
  
Jul. 2013—Jun. 2014 “Activity-Based Restorative Therapy through Multi-Modal Training” Paralyzed Veterans Administration $50,000; Co- Primary Investigator, 10% effort   
  
CLINICAL ACTIVITIES   
Licensure   
Massachusetts Board of Allied Health Professions   
Maryland Department of Health and Mental Hygiene   
  
Certification   
National Board for Certification of Occupational Therapy (OTR)   
Physical Agent Modalities Practitioner Credentialing Agency, LLC (CPAM)   
Kinesiotaping Therapy Association (CKTP)   
  
Clinical Responsibilities, Program Building/ Leadership   
  
Jun. 2010— current Manager of Clinical Education and Training, 40hours/week   
Develop and implement clinical curriculum for the development of advanced skills and competencies • Responsible for training and oversight of 40 therapists in spinal cord injury clinic, across inpatient and outpatient settings • Lead program evaluation and performance improvement projects • Organize continuing education events • Contribute to and prepare grant applications • Lead development of web-based curriculum • Organize and execute regular trainings at partner sites • Coordinate annual research symposium • Provide mentorship on clinical matters and professional development • Maintain a small direct care caseload and all commensurate activities   
  
  
Clinical Extramural Funding   
01/01/2014 - 12/31/2014 “SmartWheel Purchase.” Sponsor: Mike Utley Foundation Contract Number: 6447; Co-PI: R Martin & E Farrell   
Role: Co-Principal Investigator, 5% effort no funding; Total Direct Costs: $20,000   
06/30/2015 - 06/30/2016 “Pediatric Exploration and Mobility Program” Sponsor: Thomas Wilson Sanitarium for Children of Baltimore City Contract Number: 2265; Co-PIs: R Martin & E Farrell & P Bourne   
Role: Co-Principal Investigator, 5% effort no funding; Total Direct Costs: $20,000   
  
  
SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES   
  
System Innovation and Quality Improvement Efforts outside JHM   
  
Responsible for oversight and management of departmental Performance Evaluation and Improvement and Quality Improvement initiatives. Current projects and include   
• Note deficiency   
• Joint commission documentation compliance   
• Compliance to pt state guidelines for documentation   
• ASIA exam inter-rater reliability   
• Medicare documentation compliance   
• Employee satisfaction   
• Patient satisfaction   
• IP wound days to heal and recurrence   
• Home program compliance   
• Therapist productivity   
  
Production Guidelines and/or Protocols   
Primary contributor to multiple Critical Appraisal of Topics established by the Pediatric ASIA committee (Influence of FES cycling on spasticity, Elbow contracture management) to be published in conjunction with ASIA’s 50th anniversary.   
  
  
ORGANIZATIONAL ACTIVITIES   
  
Editorial Activities   
Nov. 2012—current Reviewer Topics In Spinal Cord Injury Rehabilitation   
  
Professional Societies   
Dec. 2012—current American Spinal Injury Association, member Pediatric Committee   
  
Jan 2001—current American Occupational Therapy Association, member   
  
Conference Organizer, Session Chair   
Jun. 2011, 2012, 2013, 2014, 2015 Committee Chair   
Contemporary Trends in Spinal Cord Injury Management, Kennedy Krieger Institute   
  
April 2011, 2012,2013 Committee Member   
Linda Schuberth Lecture, Kennedy Krieger Institute   
  
Consultantships   
Jun. 2010—2015 Valmed: Provide feedback and guidance on development of SwissStim. Help to establish clinical use guidelines and training documentation   
  
  
RECOGNITION   
Awards, Honors   
Leader in Spinal Cord Injury Care, Jun. 2011   
  
  
OTHER PROFESSIONAL ACCOMPLISHMENTS   
Publications, Media, and Related Articles:   
Rich C. Miracle Girl. Washingtonian: Nov. 2007.   
  
Mann D. Bridging the Gap. Today in OT: Jan. 19, 2009.   
  
VonDobeneck M. Extreme Makeover: Home Edition in Newberry Township. The Patriot News: Jun. 28, 2011.   
  
Martin R. Hand Therapy Following Spinal Cord Injury. Rehab Management Magazine: Jul. 2011.

***Mary Jane Mulcahey, PhD, OTR/L***  
Thomas Jefferson University

*(no CV uploaded)*

***International Spinal Cord Injury Basic Data Set Caregiver Workgroup Pediatric,***   
Multiple Institutions Represented

*(no CV uploaded)*

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**Item Banks for Measuring the Impact of Blood Pressure Dysregulation on Health-Related Quality of Life in Persons with Spinal Cord Injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Jill Wecht,***   
Dr.

**CV:**  
Jill Maria Wecht, EdD   
James J. Peters VAMC   
130 West Kingsbridge Road   
Bronx, NY 10468   
  
  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
Signature Date   
  
  
HOSPITAL APPOINTMENTS   
2000-Present Research Health Science Specialist – James J. Peters VAMC   
  
ACADEMIC APPOINTMENTS   
2016-Present Professor of Medicine and Rehabilitation Medicine, The Icahn School of Medicine, Mount Sinai, New York, NY   
2009-2016 Associate Professor of Medicine and Rehabilitation Medicine, The Icahn School of Medicine, Mount Sinai, New York, NY   
2002-2009 Assistant Professor Medicine and Rehabilitation, The Icahn School of Medicine, Mount Sinai, New York, NY   
  
EDUCATION   
1999 Doctorate of Education:   
Applied Physiology Teachers College, Columbia University, New York, NY   
1989 Master of Science:   
Applied Physiology Springfield College, Springfield, MA   
1987 Bachelor of Science:   
Health Sciences Lock Haven University, Lock Haven, PA   
  
EDUCATIONAL TRAINING   
2000-2008 Post-doctoral Fellow, Spinal Cord Damage Research Center, Bronx VAMC   
1992-1999 Graduate Assistant, Teachers College, Columbia University; New York, NY   
1987-1989 Graduate Assistant, Springfield College, Springfield, MA   
  
HONORS & AWARDS   
2016-Present Federal Advisory Committee Chair: Scientific Merit Review Board   
2015-Present Chairperson for the Career Development Panels of the RR&D Service   
2008-2013 Career Development II Award: VA RR&D Service   
  
OTHER PROFESSIONAL APPOINTMENTS   
2016-Present Editor Spinal Cord Series and Cases   
2015-Present Co-Chair: Autonomic Standards Committee, American Spinal Injury Association and the International Spinal Cord Society http://asia-spinalinjury.org/committees/autonomic-standards/   
2015-Present Chairperson: VA RR&D Service Career Development Panel   
2012- Present Editor International Scholarly Research Network   
  
LEADERSHIP APPOINTMENTS   
• Invited External Reviewer for Doctoral Dissertation Defense entitled: Cardiac Autonomic Assessment and Diastolic Function in Individuals with Spinal Cord Injury. Hisham Sharif; Brock University, St Catharines Ontario, CA, November 2016.   
• Invited Reviewer for the Spinal Cord Injury Section of the Congressionally Mediated Medical Research Program. November 20-22, 2016.   
• Invited Reviewer for the Clinical Trials Section of the Congressionally Mediated Medical Research Program. December 9-11, 2015.   
• Invited External Reviewer for Doctoral Dissertation Defense entitled: Cardiovascular and Cerebrovascular Consequences of Spinal Cord Injury. Jessica Inskip; Simon Fraser University, Vancouver, British Columbia CA. June, 2015   
• Chairperson for the VA Rehabilitation Research and Development Career Development Panel, Washington DC. February & August, 2015; February 2016.   
• Invited External Reviewer for Doctoral Dissertation Defense entitled Cardiovascular Health in Adults with Spinal Cord Injury: Julia Totosy; McMaster University, Hamilton, Ontario, CA. September, 2014   
• Contributor to the development of the International Standards to document remaining Autonomic Function after Spinal Cord Injury (ISAFSCI); 1st edition, Atlanta GA. January, 2012.   
• Invited Member of the joint meeting of the North American Clinical Trials Network (NACTN) and Neurological Outcome Assessment (NOA). Louisville KY, 2009.   
• Invited Member of the American Spinal Injury Association (ASIA) and the International Spinal Cord Society (ISCoS) steering committee for the Development of International Standards to Document Remaining Autonomic Function after Spinal Cord Injury. Boston, MA. May, 2005.   
  
MENTORING RECORD   
Name Level of Training Role in training training venue Trainee's current status   
Michelle Trbovich Career Development Award II Secondary Mentor VA RR&D Service Staff Physician   
Andrew Delgado Masters of Science Secondary Mentor Master’s Degree Icahn School of Medicine, Mount Sinai Research Assistant   
Caitlyn Katzelnick, MS Doctorate of Philosophy Mentor for Doctoral Studies Seaton Hall University & James J. Peters VAMC Research Assistant   
  
GRANT SUPPORT   
Funding Source Project Title Project Number Role in Project Dates Direct Costs   
PENDING   
NYSTRP Feasibility, safety and limited efficacy of a Phase 1 clinical trial for the use of powered exoskeletons for ambulation during inpatient rehabilitation after acute spinal cord injury Co-Investigator 2017   
-   
2022   
NYSCIRB Dose Response to the Norepinephrine Precursor Droxidopa in Hypotensive Individuals with Spinal Cord Injury PI 2017   
-   
2020 366,788   
ACTIVE   
VA RR&D Vasomotor and Sudomotor Activity During Heat Stress in Spinal Cord Injury Secondary Mentor 2017   
-   
2022 1,431,271   
NIDILRR Treating Cognitive Deficits in traumatic Spinal Cord Injury: A Randomized Clinical Trial IF 160000481 Co- Investigator 2016   
-   
2019 622,403   
NIDILRR SCI Model Systems: the Icahn School of Medicine SI-0158 Co- Investigator 2016   
-   
2021 1,162,827   
VA RR&D Center for the Medical Consequences of SCI B2020-C Program PI   
2016   
-   
2021 $737,230   
NJCSCR A Longitudinal Examination of Aging with a Spinal Cord Injury: Cardiovascular, Cerebrovascular and Cognitive Consequences CSCR13IRG483 Co-Principal Investigator 2016   
–   
2019 $577,214   
Craig Neilsen Blood Pressure, Cerebral Blood Flow and Cognition in SCI 284196 Principal Investigator 2014   
-   
2017 $593,175   
Dept. of Defense A Randomized, Crossover Clinical Trial of Exoskeletal-assisted Walking to Improve Mobility, Bowel Function and Cardio-Metabolic Profiles in SCI SC130234 Co-Investigator 2014   
-   
2019 $1,478,822   
  
PUBLICATIONS [1-57]   
  
1. Wecht, JM, Rosado-Rivera, D, Jegede, A, Cirnigliaro, CM, Jensen, AM, Kirshblum, SC, Bauman, WA. Systemic and Cerebral Hemodynamics during Cognitive Testing. Clinical Autonomic Research. 22(1): 25-33, 2012.   
2. Biering-Sørensen, F., Krassioukov, A., Alexander, ML., Donovan, W., Karlsson, A., Müller, G., Perkash, I., Sheel, AW., Wecht, JM, Mathias, C., Schilero G. International Spinal Cord Injury Data Sets: Pulmonary Basic Data Set. Spinal Cord. 50(6): 418-4221, 2012.   
3. Krassioukov, A., Biering-Sorensen, F., Donovan, W., Kennelly, M., Kirshblum, S., Krogh, K., Sipski Alexander, M., Vogel, L., and Wecht, JM. International standards to document remaining autonomic function after spinal cord injury. Topics in Spinal Cord Injury Rehabilitation. 18(3): 282-296, 2012.   
4. Krassioukov, A., Biering-Sorensen, F., Donovan, W., Kennelly, M., Kirshblum, S., Krogh, K., Sipski Alexander, M., Vogel, L., and Wecht, JM. International standards to document remaining autonomic function after spinal cord injury. Journal of Spinal Cord Injury Medicine. 35(4): 201-210, 2012.   
5. Bauman, WA, Korsten, MA, Radulovic, M, Schilero, GJ, Wecht, JM and Spungen, AM. 31st G. Heiner Sell Lectureship: Secondary Medical Consequences of Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. 18(4):354-378, 2012.   
6. Wecht, JM, & Bauman, WA. Decentralized Cardiovascular Autonomic Control and Cognitive Deficits in Persons with Spinal Cord Injury. Journal of Spinal Cord Medicine. 36(2): 74-81, 2013.   
7. LaFountaine MF, Wecht, JM, Bauman WA. Acute Nitric Oxide Synthase Inhibition and Cardiac Conduction in Persons with Spinal Cord Injury: A Short Report. Pharmazie, 2013. 68(4): 245-250.   
8. Wecht, JM, Zhu, C., Weir, JP., Yen, C., Renzi, C., Galea, M. A Prospective Report on the Prevalence of Heart Rate and Blood Pressure Abnormalities in Veterans with SCI. Journal of Spinal Cord Medicine. 36(5): 454-462, 2013.   
9. Zhu, C., Galea, M., Livote, E., Signor, D., Wecht, JM. A Retrospective Chart Review of Heart Rate and Blood Pressure Abnormalities in Veterans with SCI. Journal of Spinal Cord Medicine. 36(5): 463-475, 2013.   
10. LaFountaine MF, Wecht, JM, Cirnigliaro CM, Kirshblum SC, Spungen AM, Bauman WA. Testosterone Replacement Therapy Improves QTaVI in Hypogonadal Men with Spinal Cord Injury. Neuroendocrinology. 97(4): 341-346, 2013.   
11. Carlozzi, N., Fyffe, D., Morin, KG., Byrne, R., Tulsky, DS., Victorson, D., Lai, JS. and Wecht, JM. The Impact of Blood Pressure Dysregulation on Health-Related Quality of Life in Persons with Spinal Cord Injury: A Conceptual Model. Arch Phys Med & Rehabil. 94(9):1721-30. 2013.   
12. Wecht, JM., Rosado-Rivera, D., Weir, JP., Ivan, A., Yen, C., Bauman, WA. Hemodynamic Effects of L-threo-3,4-dihydroxyphenylserine (droxidopa) in Hypotensive Individuals with Spinal Cord Injury. Arch Phys Med & Rehabil. 94(10): 2006-12. 2013.   
13. Leavitt, Cirnigliaro, Cohen, Farag, Brooks, Wecht, JM, Wylie, Chiaravalloti, Deluca, Sumowski. Aerobic Exercise Increases Hippocampal Volume and Improves Memory in Multiple Sclerosis: Preliminary Findings. Neurocase. 20(6): 695-697, 2014.   
14. Schilero, GJ, Radulovic, M, Wecht, JM, Bauman, WA and Lesser, M. A Center's Experience: Pulmonary Function in Spinal Cord Injury. Lung. 192(3); 339-346, 2014.   
15. Wecht, JM, Cirnigliaro, CM, Azarelo, F, Bauman, WA, Kirshblum, SC. Anticholinesterase Inhibition to Treat Orthostatic Hypotension in Persons with Spinal Cord Injury. Clinical Autonomic Research; 25(3): 179-187, 2015.   
16. Wecht, JM, Weir, JP, Galea, M, Martinez, P, Zhu, CW and Bauman, WA. Prevalence of Abnormal Systemic Hemodynamics in Veterans with and without Spinal Cord Injury. Archives of PM&R. 96(6), 1071-1079, 2015.   
17. Krassioukov, A; Rapidi, A; Wecht, JM and Vogel, L. Autonomic Dysreflexia following Spinal Cord Injury. International Spinal Cord Society textbook chapter March 10, 2015.   
18. Radulovic, M., Schilero, GJ., Yen, C., Bauman, WA., Wecht, JM, Ivan, A., LaFountaine, MF., Korsten, MA. Greatly Increased Prevalence of Esophageal Dysmotility Observed in Persons with Spinal Cord Injury. Diseases of the Esophagus; 28(7), 699-704, 2015   
19. Radulovic, M; Bauman, W; Wecht, JM; La Fountaine, M; Kahn, N; Hobson, J; Singh, K; Renzi, C; Yen, C; Schilero, G. Biomarkers of Inflammation in Persons with Chronic Tetraplegia. Journal of Breath Research; 9 (3), 2015.   
20. Wecht, JM, LaFountaine, MF, Handrakis, JP, Ditor, D, West, C, Phillips, A, Bauman, WA, and Krassioukov, A. Autonomic Nervous System in Spinal Cord Injury: Effects on Cardiovascular Control. Invited Review: Current Physical Medicine and Rehabilitation Reports, 2015, 10.1007/s40141-015-0093-2   
21. Bauman, WA, Wecht, JM, Biering-Sorensen, F. International Spinal Cord Injury Data Sets: Endocrine and Metabolic Extended Data Set (Version 1.0). Spinal Cord 55(5), 466-477, 2017   
22. Wecht, JM, Weir, JP, Radulovic, M, Renzi, C, and Bauman, WA. Effects of Midodrine and L-NAME on Systemic and Cerebral Hemodynamics during Cognitive Activation in Spinal Cord Injury and Intact Controls; Physiological Reports. doi: 10.14814/phy2.12683; 4(3), 2016.   
23. Wecht, JM, Martinez, P, Eraifej, M and Bauman, WA. Prevalence of Abnormal Blood Pressure Responses to Standing in Veterans. Clinical Autonomic Research 26(1), 49-58, 2016.   
24. Wecht, JM, Weir, JP, Radulovic, M, Renzi, C, and Bauman, WA. Inter-Day Reliability of Blood Pressure and Cerebral Blood Flow Velocities in Persons with Spinal Cord Injury and Intact Controls. Journal Spinal Cord Medicine, 40(2), 159-169; 2017 doi: 10.1080/10790268.   
25. Biering-Sørensen, F, MD DMSc; Biering-Sørensen, T; Liu, N; Malmqvist, L; Wecht, JM; Krassioukov, A. Alterations in Cardiac Autonomic Control in Spinal Cord Injury. Autonomic Neuroscience doi: 10.1016/j.autneu.2017.02.004.   
26. Ciccone, AB, Siedlik, AJ, Wecht, JM, Deckert, JA, Nguyen, ND and Weir, JP. Reminder: RMSSD and SD1 are Redundant Heart Rate Variability Measures. doi: 10.1002/mus.25573.   
27. Wecht, JM and Bauman, WA. Implication of Altered Autonomic Control for Orthostatic Tolerance in SCI. Autonomic Neuroscience: doi: 10.1016/j.autneu.2017.04.004.   
28. Katzelnick, CG, Weir, JP, Chiaravalloti, ND, Bauman, WA, Wylie, GR, Dyson-Hudson, TA, Wecht, JM. Impact of Blood Pressure, Lesion level and Physical Activity on Aortic Augmentation Index in Persons with SCI. accepted: J Neurotrauma; July 2017.   
  
INVITED LECTURES/PRESENTATIONS   
1. Experimental Biology – April 2017: Heart rate and blood pressure responses to head-up tilt following autonomic blockade in persons with SCI and intact controls. Chicago, IL.   
2. The American Society of Hypertension – May 2016: Postural Hypotension in Persons with Spinal Cord Injury: Consequences & Treatments. New York, NY.   
3. The American Spinal Injury Association annual meeting – April 2016: Effects of Acetylcholinesterase Inhibition on Cerebral Blood Flow Velocity in Tetraplegia. Philadelphia, PA.   
4. The Icahn School of Medicine, Rehabilitation Grand Rounds –March 2016: Autonomic Dysfunction in Persons with Spinal Cord Injury: Assessment, Consequences and Treatment. New York, NY.   
5. Academy of Spinal Cord Professionals- September 2015: Cardiovascular Autonomic Control in Persons with Spinal Cord Injury. Nashville, TN.   
6. International Spinal Cord Society – May 2015: Cerebral Blood Flow Velocities and Memory in Hypotensive Individuals with Spinal Cord Injury. Montreal, CA.   
7. 2nd Annual International Symposium on Autonomic Dysfunctions following Spinal Cord Injury - Vancouver BC, November 2013: the International Collaboration on Repair Discoveries (ICORD): Chronic Hypotension in Persons with SCI: Clinical Consequences and Potential Treatment Options.   
8. The Mount Sinai School of Medicine, Medical Grand Rounds –December 2012: Heart Rate and Blood Pressure Disorders in Veterans with SCI.   
9. The Burke Rehabilitation Hospital, Medical Grand Rounds - June 2012: Cardiovascular Autonomic Dysfunction: Possible Implication for Persons with SCI.   
10. The Rick Hansen Foundation, Interdependence 2012 Conference and Exposition (2012) - Vancouver, BC, May 2012: The Presentation and Consequences of Decentralized Autonomic Cardiovascular Control in Persons with SCI.

***Kel Morin, BS***  
James J Peters Va Medical Center

*(no CV uploaded)*

***Michael Kallen, PhD, MPH***  
Epartment of Medical Social Sciences, Northwestern University Feinberg School of Medicine

*(no CV uploaded)*

**149**

**Recovery after thoracic and lumbar traumatic spinal cord injury: the neurological level of lesion matters**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Eveline Brouwers, MPA, PhD student***  
Radboud University Medical Center

**CV:**  
Biographical sketch   
Name: Eveline Brouwers, MPA, PhD student   
Position Title: Physician assistant Neurosurgery Radboud University Medical Center.   
A. Personal statement   
My research is about traumatic spinal cord injuries with special attention to the Conus Medullaris and the Cauda Equina. Lot of research was done about the recovery in spinal cord injured patients, however, research about Conus Medullaris Syndrome (CMS) and the Cauda Equina Syndrome (CES) remain long way from other spinal cord injury syndromes. Despite the fact that patients with a lesion in the lowest part of the spinal cord might have a better recovery compared to patients with higher spinal cord lesions, patients with a CMS or CES might discover bowel/bladder and gait problems which leads to serious social problems. Realization in level of lesion, spontaneous recovery and rehabilitation results will help care givers to minimize the impact of trauma to the CM and CE for patients and family. Moreover, in clinical literature, ambiguity about the definition of the CMS and CES exist. Therefore I have chosen to dedicate my PhD project to the CMS and CES. Alongside my training to become PhD, I work as Physician assistant on the neurosurgery ward at the Radboud University Medical Center, with special interest in spinal cord injured patients. Besides, I mentor medical students and doctors in training for neurology and neurosurgery.   
  
B. Positions   
2007 - 2010 Physiotherapist   
2009 - 2010 Chairman cardiovascular rehabilitation program, VieCurie Medical Center, Venlo.   
2013 - present Clinical instructor medical students, Radboud University, Nijmegen.   
2015 - present Clinical instructor at Physician Assistant program, subject neurology. Hogeschool van Arnhem en Nijmegen.   
2015-2016 Board member spine rehabilitation program. Radboud University and St. Maartenskliniek Nijmegen.   
2013 - present Physician assistant neurosurgery, Radboud University Nijmegen.   
2015 - present Chairman association of physician assistants neurosurgery Netherlands   
  
C. Contribution to science   
2013 MPA Thesis ‘the use of external lumbar drainage after cerebrospinal fluid leakage after endoscopic endonasal transsfenoidal adenectomy’.   
2017 ‘Definitions of traumatic conus medullaris and cauda equina’.   
syndrome: a systematic literature review’. E Brouwers, H van de Meent, A Curt, B Starremans, A Hosman and R Bartels. Spinal Cord (2017), 1–5.

**150**

**The Effects of Acute Aerobic Exercise on Inflammatory Markers and Mood in Individuals with Multiple Sclerosis and Spinal Cord Injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Scott Donia, MSc***  
Brock University

**CV:**  
Scott A. Donia   
  
Neuromuscular Acquisition & Rehabilitation Lab   
Department of Kinesiology   
Brock University   
St. Catharines, Ontario, CANADA L2S 3A1   
  
Education   
  
Master of Science Kinesiology 2015 - 2017   
Brock University, St. Catharines, ON   
Supervisor: Dr. David Ditor   
Master’s thesis: The Effects of Acute Aerobic Exercise on Inflammatory Markers and Mood in Individuals with Multiple Sclerosis and Spinal Cord Injury   
  
Bachelor of Science (Honours), Kinesiology 2010-2014   
Brock University, St. Catharines, ON   
  
Awards & Distinctions   
  
Dean of Graduate Studies Entrance Scholarship 2015   
• Brock University   
  
Match of Minds 2015   
• Brock University   
  
Dean’s Honour List 2011-2015   
• Brock University   
  
Brock University Entrance Scholarship 2010   
• Internal, Brock University   
  
Research Experience   
  
Research Assistant (August 2017-present)   
• Research study investigating ACE-wheelchair legs as a means to reverse hamstring contractures, lower limb swelling and spasticity after spinal cord injury: A feasibility and efficacy study   
  
Research/ Laboratory Techniques   
• VO2 max testing, ELISA, Multiplex, Functional Electrical Stimulation, Body Weight Support Treadmill Training, Goniometry   
  
Publications & Presentations   
  
Donia S.A., Allison D.J., Gammage K.L, Ditor D.S. The Effects of Acute Aerobic Exercise on Inflammatory Markers and Mood in Individuals with Multiple Sclerosis and Spinal Cord Injury. Ontario Exercise Physiology Conference, Barrie, Ontario, January 2017.   
  
Donia S.A., Allison D.J., Gammage K.L, Ditor D.S. The Effects of Acute Aerobic Exercise on Inflammatory Markers and Mood in Individuals with Multiple Sclerosis and Spinal Cord Injury. Mapping the New Knowledges Annual Graduate Student Conference, Brock University, April 2017.   
  
  
Related Experience   
  
Head Trainer at Power Cord (Sept 2013-present)   
• Adaptive exercise facility for people with spinal cord injuries, multiple sclerosis, and lower limb amputations at the Brock-Niagara Centre for Health and Well-Being. Responsible for developing workout programs specific to individual’s needs while ensuring proper exercise form.   
• In charge of training and organizing student volunteers for helping with the members during their workout session.

***David Allison, PhD***  
Mcmaster University

*(no CV uploaded)*

***Kimberley Gammage, PhD***  
Brock University

*(no CV uploaded)*

***David Ditor, PhD***  
Brock University

*(no CV uploaded)*

**151**

**Does the functional outcome 6 months after a traumatic spinal cord injury predicts the chronic functional outcome 12 months after the injury?**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Rami Chatta, BSc***  
Faculty of Medicine, University of Montreal

*(no CV uploaded)*

***Cynthia Thompson, PhD***  
Hôpital Du Sacré-Coeur

*(no CV uploaded)*

***Andréane Richard-Denis, MD***  
Hôpital Du Sacré-Coeur

*(no CV uploaded)*

***Jean-Marc Mac-Thiong, MD, PhD***  
Hôpital Du Sacré-Coeur

**CV:**  
MAC-THIONG, JEAN-MARC, MD, PhD   
ASSOCIATE PROFESSOR   
  
RESEARCH AND PROFESSIONAL EXPERIENCE:   
Positions and Employment   
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada   
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada   
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada   
2010-… Chief Medical Officer, Spinologics Inc., Canada   
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada   
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada   
  
Other Experience and Professional Memberships   
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association   
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society   
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society   
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation   
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal   
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group   
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)   
2014-… Associate Member, Harms Study Group   
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé   
2012-13 Associate Member, North American Spine Society   
2012-… Member, American Spinal Injury Association   
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis   
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research   
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities   
2008-… Member, Scoliosis Research Society   
  
Honors   
2015 Ansys Hall of Fame 2015 Best in Show: Corporate   
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)   
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)   
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research   
2011 Scoliosis Research Society Traveling Fellowship   
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting   
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting   
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society   
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé   
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal   
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal   
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal   
  
Publications   
H-index: 27 i10-Index: 56   
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong   
  
Peer-reviewed publications on spinal cord injury   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J   
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology   
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]   
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)   
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]   
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]   
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]   
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]   
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68   
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33   
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6   
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8   
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23   
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68   
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4   
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47   
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6   
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54   
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22   
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24   
  
Peer-reviewed publications on other spine-related projects (2015-2017)   
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]   
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]   
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]   
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94   
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32   
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62   
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796   
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4   
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2   
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8   
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7   
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65   
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11   
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31   
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30   
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35   
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20   
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6   
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7   
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003   
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51   
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43   
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8   
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21   
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1   
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20   
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34   
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64   
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)   
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017   
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017   
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.   
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014   
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014   
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014   
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014   
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014   
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

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**Relationships between Specific Functional Abilities and Health-Related Quality of Life in Chronic Spinal Cord Injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Julien Goulet, MD***  
Université De Montréal

**CV:**  
Name: Julien Goulet MD   
Position Title: Senior Resident, Orthopaedic Surgery, Université de Montréal   
  
Education background   
  
2014 – … Orthopaedic Surgery Residency   
Université de Montréal, Programme d’orthopédie Édouard-Samson   
Montreal, Quebec   
2010 – 2014 Doctorate of Medicine   
Université de Montréal   
Montreal, Quebec   
  
Honors   
  
2017 - Grantee, Fondation de recherche et d'éducation en orthopédie de Montréal   
  
Spinal Cord Injury related publications / presentations   
  
-

***Jean-Marc Mac-Thiong, MD, PhD***  
Université De Montréal

**CV:**  
Jean-Marc Mac-Thiong   
  
Associate Professor, Orthopaedic Surgery, Université de Montréal   
  
Research and professional experience:   
  
Positions and Employment   
  
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada   
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada   
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada   
2010-… Chief Medical Officer, Spinologics Inc., Canada   
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada   
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada   
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada   
Other Experience and Professional Memberships   
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association   
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society   
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society   
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation   
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal   
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group   
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)   
2014-… Associate Member, Harms Study Group   
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé   
2012-13 Associate Member, North American Spine Society   
2012-… Member, American Spinal Injury Association   
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis   
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research   
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities   
2008-… Member, Scoliosis Research Society   
  
Honors   
  
2015 Ansys Hall of Fame 2015 Best in Show: Corporate   
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)   
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)   
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research   
2011 Scoliosis Research Society Traveling Fellowship   
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting   
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting   
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society   
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé   
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal   
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal   
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal   
  
Publications   
  
H-index: 27 i10-Index: 56   
  
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong   
  
Peer-reviewed publications on spinal cord injury   
  
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J   
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology   
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]   
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)   
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]   
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]   
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]   
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]   
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68   
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33   
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6   
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8   
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23   
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68   
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4   
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47   
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6   
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601   
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54   
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22   
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24   
  
Peer-reviewed publications on other spine-related projects (2015-2017)   
  
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]   
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]   
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]   
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94   
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32   
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62   
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796   
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4   
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2   
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8   
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7   
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65   
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11   
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31   
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30   
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35   
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20   
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6   
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7   
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003   
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51   
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43   
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8   
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21   
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1   
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20   
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34   
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64   
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)   
  
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017   
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017   
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017   
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016   
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015   
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.   
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014   
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014   
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014   
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014   
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014   
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

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**Activity-based training with spinal cord epidural stimulation for the recovery of standing in individuals with chronic motor complete spinal cord injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Enrico Rejc, PhD***  
University of Louisville

**CV:**  
BIOGRAPHICAL SKETCH   
  
Name: Enrico Rejc, PhD   
  
Position Title: Assistant Professor, Dept. Neurosurgery, Kentucky Spinal Cord Injury Research Center, University of Louisville; Scientific Director, Metabolic, Neuromuscular and Skeletal research core, Kentucky Spinal Cord Injury Research Center, University of Louisville.   
  
A. Personal Statement   
I have studied different aspects of the human neuromuscular system and its adaptations to spinal cord injury, prolonged disuse, aging and exercise for about 10 years. I have also studied the oxidative metabolism during exercise and its adaptation to disuse. Since 2010, I have been involved in research projects that investigate the effects of lumbosacral spinal cord epidural stimulation on the recovery of motor function in individuals with chronic complete spinal cord injury. In the last 5 years, I have led experimental sessions aimed at studying the effects of different spinal cord epidural stimulation parameters and activity-based rehabilitation paradigms on the recovery of lower limb motor function in complete paraplegics. Since 2015, I have also directed the Metabolic, Neuromuscular and Skeletal research core, which includes one core manager and two research techs, and supports research projects and clinical evaluations by performing muscle-, skeletal-, and body composition-related assessments.   
  
  
B. Positions and Honors   
  
Positions and Employment   
2011-2012 Research Fellow, Dept. of Medical and Biological Sciences, University of Udine, Italy   
2015-present Assistant Professor, Kentucky Spinal Cord Injury Research Center, University of Louisville, KY   
2015-present Scientific Director, Neuromuscular and Skeletal Reaserch Core, Kentucky Spinal Cord Injury Research Center, University of Louisville, KY   
April 2017 Visiting Professor, Dept. of Human Movement and Wellbeing Sciences, University of Napoli Parthenope, Italy   
  
  
Other Experience and Professional Memberships   
2012-present Ad hoc Reviewer for 5 scientific journals   
2013-present Member, Society for Neuroscience   
2017 Grant Review: Ad hoc reviewer for: Defense Medical Research and Development Program - Neuromusculoskeletal Injuries Rehabilitation Research.   
  
Honors   
2005 National award for scientific manuscripts focused on human movement science, “Stefano Benetton Foundation”.   
2006 National award for scientific manuscripts focused on human movement science, Italian Government.   
  
  
  
  
  
  
C. Contribution to Science   
1. We have shown for the first time that lumbosacral spinal cord epidural stimulation (scES) progressively re-enabled full weight bearing standing with self-assistance for balance and volitional movements of the lower limbs in a clinically motor complete paraplegic. We also reported that full weight bearing standing without external assistance could be achieved by motor compete paraplegics when appropriate scES parameters were applied. In particular, near-motor threshold stimulation amplitudes and relatively higher frequencies (25-60 Hz) delivered using individual-specific electrode configurations were able to promote the generation of continuous EMG patterns effective for standing. Importantly, motor patterns sufficient for standing were generated when the sit to stand transition initiated and weight-bearing related sensory information were used by the spinal circuitry as a source of control. On the other hand, negligible EMG activity and no leg movements were observed when the same scES parameters were applied during sitting.   
  
a) Harkema SJ, Gerasimenko Y, Hodes J, Burdick J, Angeli CA, Chen Y, Ferreira C, Willhite A, Rejc E, Grossman RG, Edgerton VR. Effect of epidural stimulation of the lumbosacral spinal cord on voluntary movement, standing, and assisted stepping after motor complete paraplegia: a case study. Lancet. 2011 Jun 4;377(9781):1938-47.   
b) Rejc E, Angeli C, Harkema S. Effects of lumbosacral spinal cord epidural stimulation for standing after chronic complete paralysis in humans. PLoS One. 2015 Jul 24;10(7).   
  
  
2. I have also studied the effects of different activity-based training paradigms with scES on motor function for standing in individuals with chronic complete spinal cord injury (SCI). After approximately 80 sessions of stand training with scES, the ability to stand improved to different extents in the four research participants. However, step training performed afterwards substantially impaired standing in three of the four individuals. These findings led us to investigate whether standing and stepping can be concurrently trained without limiting the recovery of standing in individuals with chronic complete SCI using scES. In particular, other three individuals with chronic motor complete SCI performed an interleaving stand-step training with scES: stand training and step training alternated every session, and the total number of training sessions remained the same as in the previous protocol (N=160). Standing ability improved throughout stand-step training, as the individuals were able to stand with no external assistance for longer periods of time using less stable upper limb support for balance. Improved standing ability generally coincided with continuous EMG patterns and constant levels of ground reaction forces, and with neural adaptations that resulted in the increased evoked potentials amplitude modulation induced by sit to stand transition. Conversely, poorer standing ability was associated with more variable EMG patterns that alternated EMG bursts and longer periods of negligible activity in most of the muscles. Both training paradigms did not promote the recovery of standing without scES. However, one of the research participants continued to perform stand and step training with scES both at home and in the laboratory for a total duration of ~ 3.7 years, showing the re-emergence of muscle activation patterns sufficient for standing with independent knee and hip extension without scES. In addition, a functional progression from no volitional muscle activation to a refined, task-specific activation pattern and movement generation during volitional leg movement attempts without scES was also observed.   
  
a) Rejc E, Angeli C, Bryant N, Harkema S. Effects of stand and step training with epidural stimulation on motor function for standing in chronic complete paraplegics. J Neurotrauma. 2017 May 1;34(9):1787-1802.   
b) Rejc E, Angeli C, Atkinson D, Harkema S. Motor recovery after activity-based training with spinal cord epidural stimulation in a chronic motor complete paraplegic. Scientific Reports. In press   
c) Rejc E, Angeli C, Harkema S. Interleaving stand-step training with spinal cord epidural stimulation effectively improved standing in individuals with chronic complete spinal cord injury. Annual Meeting, Society for Neuroscience, Washington, DC; November 2017.   
  
  
3. As part of my interest in the human neuromuscular system, I have investigated the effects of spinal cord injury, prolonged disuse (experimental bed rest) and different countermeasures (diet; cognitive training) on neuromuscular and metabolic markers. Chronic complete spinal cord injury (SCI) induced muscle atrophy that ranged from 37% (tibialis anterior) to 51% (quadriceps femoris) as compared to a control group of non-disabled individuals. Torque output was affected to a greater extent by SCI, underscoring how muscle quality was also compromised. Interestingly, the relationship between muscle mass of representative antagonist muscles was similar between SCI and non-disabled individuals. In collaboration with a team of bioengineers, we have also developed a novel method to automatically segment MRI images and quantify thigh muscles volume and intermuscular adipose tissue in individuals with SCI as well as non-disabled individuals. In a group of non-disabled individuals, we showed that preventing fat mass gain by decreasing diet energy intake resulted in a mitigation of loss of muscle mass. Indeed, systemic inflammatory and stress reaction to prolonged disuse mediate greater muscle mass catabolism when excess of fat deposition occurs. However, this mitigation of loss of muscle mass was not sufficient for reducing the loss of muscle power of the lower limbs. We also examined how plasma level of the brain‐derived neurotrophic factor was affected by bed rest and cognitive training in elderly individuals, and commented on the mechanisms that may promote a partial preservation of neuromuscular function. Finally, we have also highlighted the negative effects of prolonged disuse on the oxidative function at the muscle level in vivo.   
  
a) He L, Willhite A, Harkema S, Rejc E. Structural and functional changes in lower limb skeletal muscle after chronic complete spinal cord injury. Annual Meeting, Society for Neuroscience, San Diego, CA; November 2016, 158.12/RR19.   
b) Mesbah S, Shalaby A, Stills S, Soliman A, Willhite A, Harkema S, Rejc E, El-baz A. A Novel Automatic Segmentation Method to Quantify the Effects of Spinal Cord Injury on Human Thigh Muscles and Adipose Tissue. Book chapter: Medical Image Computing and Computer-Assisted Intervention − MICCAI 2017, pp.703-711   
c) Rejc E, di Prampero PE, Lazzer S, Grassi B, Simunic B, Pisot R, Antonutto G, Narici M. Maximal explosive power of the lower limbs before and after 35 days of bed rest under different diet energy intake. Eur J Appl Physiol. 2015 Feb;115(2):429-36.   
d) Passaro A, Soavi C, Marusic U, Rejc E, Sanz JM, Morieri ML, Nora ED, Kavcic V, Narici MV, Reggiani C, Biolo G, Zuliani G, Lazzer S, Pišot R. Computerized cognitive training and brain derived neurotrophic factor during bed rest: mechanisms to protect individual during acute stress. Aging (Albany NY). 2017 Feb 3;9(2):393-407.   
e) Salvadego D, Lazzer S, Marzorati M, Porcelli S, Rejc E, Simunic B, Pisot R, di Prampero PE, Grassi B. Functional impairment of skeletal muscle oxidative metabolism during knee-extension exercise after bed rest. J Appl Physiol. 2011 Dec;111(6):1719-26.   
  
  
4. In addition to the contributions described above, I have studied the human neuromuscular system during “explosive” efforts of the lower limbs. One specific aim was to study the factors underlying the “bilateral deficit”, which occurs when the force generated by both limbs together is smaller than the sum of the forces developed separately by the two limbs. We described the neural components responsible for this phenomenon and showed that they were responsible for about 55% of the amount of BLD occurred during explosive extensions of the lower limbs, while the remaining ~45% was due to the characteristics of the muscle force–velocity relationship. We also observed that the factors underlying bilateral deficit were not altered by prolonged disuse, suggesting that the neural networks involved in this phenomenon are not substantially modulated by daily motor activity. In addition, we described the importance of the force–velocity mechanical profile in determining the performance during “explosive” efforts.   
  
a) Rejc E, Lazzer S, Antonutto G, Isola M, di Prampero PE. Bilateral deficit and EMG activity during explosive lower limb contractions against different overloads. Eur J Appl Physiol. 2010 Jan;108(1):157-65.   
b) Samozino P, Rejc E, di Prampero PE, Belli A, Morin JB. Force-Velocity Properties Contribution to Bilateral Deficit during Ballistic Push-Off. Med Sci Sports Exerc. 2014 Jan;46(1):107-14.   
c) Rejc E, di Prampero PE, Lazzer S, Grassi B, Simunic B, Pisot R, Antonutto G, Narici M. A 35-day bed rest does not alter the bilateral deficit of the lower limbs during explosive efforts. Eur J Appl Physiol. 2015 Jun;115(6):1323-30.   
d) Samozino P, Rejc E, Belli A, di Prampero PE, Morin JB.Optimal force-velocity profile in ballistic movements. Altius: citius or fortius? Med Sci Sports Exerc. 2012 Feb;44(2):313-22.   
  
  
5. I have also investigated the role of maximal oxygen consumption, energetic cost of running and neuromuscular properties of the lower limbs in determining athletes’ performance during endurance and ultra-endurance events. We observed that maximal oxygen consumption, its fractional utilization during the race and the energetic cost of transportation explained more than 85% of total race time variance. Interestingly, greater values of lower limb muscle power were related to lower energetic cost and smaller adaptations in running biomechanics induced by fatigue.   
  
a) Lazzer S, Taboga P, Salvadego D, Rejc E, Simunic B, Narici MV, Buglione A, Giovanelli N, Antonutto G, Grassi B, Pisot R, di Prampero PE. Factors affecting metabolic cost of transport during a multi-stage running race. J Exp Biol. 2014 Mar 1;217(Pt 5):787-95   
b) Rejc E, Lazzer S, Antonutto G. Energy expenditure and dietary intake of athletes during an ultraendurance event developed by hiking, cycling and mountain climbing. J Sports Med Phys Fitness. 2010 Sep;50(3):296-302.   
c) Lazzer S, Salvadego D, Taboga P, Rejc E, Giovanelli N, di Prampero PE. Effects of the Etna uphill ultramarathon on energy cost and mechanics of running. Int J Sports Physiol Perform. 2015 Mar;10(2):238-47   
d) Lazzer S, Salvadego D, Rejc E, Buglione A, Antonutto G, di Prampero PE. The energetics of ultra-endurance running. Eur J Appl Physiol. 2012 May;112(5):1709-15.   
e) Giovanelli N, Taboga P, Rejc E, Simunic B, Antonutto G, Lazzer S. Effects of an Uphill Marathon on Running Mechanics and Lower Limb Muscles Fatigue. Int J Sports Physiol Perform. 2016 May;11(4):522-9.   
  
  
  
Complete List of Published Work in MyBibliography:   
https://www.ncbi.nlm.nih.gov/sites/myncbi/1RyrBrxHcAG5V/bibliography/52504586/public/?sort=date&direction=ascending   
  
  
D. Research Support   
  
- New York State Spinal Cord Injury Board. Agrawal S. (PI) 09/2016 – 09/2021   
Tethered Pelvic Assist Device (TPAD) and Epidural Stimulation for Recovery of Standing in SCI.   
Role: Co-PI; $5,033,354.

***Claudia Angeli, PhD***  
University of Louisville

**CV:**  
-

***Susan Harkema, PhD***  
University of Louisville

*(no CV uploaded)*

**154**

**Standardized Locomotor Training Across Eight Clinical Sites: Outcomes from the Reeve Foundation NeuroRecovery Network 2005-2016**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Candy Tefertiller, PT, DPT, NCS***  
Craig Hospital

**CV:**  
Publications:   
1. Kahn, Jennifer H., Rachel Tappan, Christopher P. Newman, Phyllis Palma, Wendy Romney, Eileen Tseng Stultz, Candy Tefertiller, and Cara Leone Weisbach. "Outcome Measure Recommendations from the Spinal Cord Injury EDGE Task Force." Physical therapy (2016).   
2. Kahn, Jennifer, and Candy Tefertiller. "Measurement Characteristics and Clinical Utility of the Walking Index for Spinal Cord Injury." Archives of Physical Medicine and Rehabilitation 96.3 (2015): 565-566.   
3. Jones, Michael L., Tefertiller, C et al. "Activity-based therapy for recovery of walking in individuals with chronic spinal cord injury: results from a randomized clinical trial." Archives of physical medicine and rehabilitation 95.12 (2014): 2239-2246.   
4. Jones, M. L., Evans, N., Tefertiller, C., Backus, D., Sweatman, M., Tansey, K., & Morrison, S. (2014). Activity-based therapy for recovery of walking in chronic spinal cord injury: results from a secondary analysis to determine responsiveness to therapy. Archives of physical medicine and rehabilitation, 95(12), 2247-2252.   
  
Presentations:   
1. Tefertiller C, Spungen A. (September 2016) “Point/Counter Point Debate: Exoskeletons in Spinal Cord Injury” presented at ASCIP Nashville, TN.   
2. Tefertiller C, Kleim J. (February 2016) “Translating Lessons from the Lab to Promote Walking Recovery after Spinal Cord Injury” presented at CSM Anaheim, CA.   
3. Tefertiller C. (March 2016) “Innovations in Spinal Cord Injury Rehabilitation” presented at Hospital Authority, Hong Kong.   
4. Tefertiller C. (June 2016) “Innovative Approaches to Implementing Functional Electrical Stimulation in Neurologic Rehabilitation” presented at IFESS La Grande-Motte, France.   
5. Tefertiller C. (June 9, 2015) “Technological Advances to Achieve Motor Learning in NeuroRehabilitation” presented at INRS in Valencia, Spain.   
6. Tefertiller C. (January 2015) “Facilitating Walking Recovery after Traumatic Brain Injury” presented at the Brain Injury Summit in Beaver Creek, CO.   
7. Tefertiller C. (November 2013) “Rehab is Over, Now What? Innovative Outpatient Programs for Spinal Cord Injury” presented at ACRM in Orlando FL.   
8. Tefertiller C. (September 13, 2013) “Successful Integration of Advanced Technologies into NeuroRehabilitation” presented at INRS in Zurich Switzerland.   
9. Tefertiller C. Bauman B. (September 4, 2013) “Controversial Issues in Spinal Cord Injury Management Counterpoint Debate” presented at ASCIP in Las Vegas, NV.   
10. Tefertiller C. (September 3, 2013) “Utilizing Advanced Technologies to Achieve Motor Learning Principles in SCI” presented at ASCIP in Las Vegas, NV.   
11. Tefertiller C; Jones M; Evans N (May 4, 2013) “Activity-Based Therapy for Recovery of Walking in Individuals with Chronic Spinal Cord Injury: Results from a Randomized Clinical Trial” presented at ASIA in Chicago IL.   
12. Tefertiller C. (February 23, 2013) “A Roadmap to the Effective Rehabilitation of Spinal Cord Injuries” presented at AAOP symposium in Orlando Florida.   
13. Tefertiller C. (EDGE Taskforce January 21, 2013) “Outcome Recommendations from the Neurology Section Spinal Cord Injury EDGE task force” presented at CSM in San Diego, CA.   
14. Tefertiller C. (January 2013) “Functional Electrical Stimulation Program in the Clinic and at Home for People with SCI: Perspectives from the Clinician and the Consumer” presented at CSM San Diego, CA   
15. Tefertiller C. (April 18, 2012)“Gait Assessment and Treatment: New Approaches and Advanced Technologies” presented at ASIA Conference Denver, CO.   
16. Tefertiller, C (April 21, 2012) “Stimulating Recovery and Fitness in the Home and Clinic” presented at ASIA Conference Denver, CO.   
17. Tefertiller, C. (January 10, 2012)“Activity Based therapy Programs: Practical Applications” presented at the Brain Injury Summit, Beaver Creek Colorado.   
18. Tefertiller C. (January 10, 2012) “Utilizing Advanced Technologies to Achieve Motor Learning Principles in Brain Injury” presented at the Brain Injury Summit, Beaver Creek Colorado.   
19. Tefertiller C. (September 8, 2012) “Normal and Pathological Gait: Innovative Treatment Strategies to Address Gait Dysfunction” presented at ASCIP Las Vegas, NV.

***Andrea Behrman, PhD***  
Frazier Rehabilitation Institute

*(no CV uploaded)*

***Mary Schmidt Read, PT, DPT, MS***  
Magee Rehabilitation

*(no CV uploaded)*

***Elizabeth Watson, PT, DPT, NCS***  
Magee Rehabilitation

*(no CV uploaded)*

***Gail Forrest, PhD***  
Kessler Foundation

*(no CV uploaded)*

***Michelle Basso, Ed.D, PT***  
Ohio State University

*(no CV uploaded)*

***Sarah Morrison, PT, MBA***  
Shepherd Center

*(no CV uploaded)*

***Kimberly Atkinson, PT, DPT***  
Frazier Rehabilitation Institute

*(no CV uploaded)*

***Heather Taylor, PhD***  
Tirr

*(no CV uploaded)*

***Beatrice Ugilweneza, PhD***  
Kentucky Spinal Cord Injury Research Center Department of Neurosurgery, School of Medicine Department of Health Management and Systems Science, School of Public Health and Information Sciences

*(no CV uploaded)*

***Doug Lorenz, PhD***  
Kentucky Spinal Cord Injury Research Center Department of Neurosurgery, School of Medicine Department of Health Management and Systems Science, School of Public Health and Information Sciences

*(no CV uploaded)*

***Susan Harkema, PhD***  
Kentucky Spinal Cord Injury Research Center, Frazier Rehabilitation Institute

*(no CV uploaded)*

**155**

**A functional electrical stimulation rowing exercise program interrupts expected bone loss after SCI**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Rebecca Lambach, PhD***  
Va Palo Alto Health Care System

**CV:**  
NAME: Lambach, Rebecca Leeann   
POSITION TITLE: Research Biomedical Engineer   
  
A. Personal Statement   
  
I have been a Research Biomedical Engineer in the Musculoskeletal Research Laboratory at VA Palo Alto Health Care System for three years and a postdoctoral scholar at Stanford University for one year. My experience at the VA and Stanford, along with my graduate work, have provided me with a firm technical foundation which underlies my biomechanical research interests to improve the lives of those with physical and neurological disabilities. I have ten years of interdisciplinary biomechanics research experience using human movement analysis and musculoskeletal modeling to evaluate movement patterns and rehabilitation techniques and their influences on health and quality of life. I have practical experience modifying and using musculoskeletal models to calculate internal forces during movement. I have greatly benefited from working closely with scientists and clinicians who have contributed to a broader and more clinically applicable interpretation of my research results. In my recent work on skeletal health following spinal cord injury at VA Palo Alto, I am building strong relationships with clinicians and scientists at the Spinal Cord Injury Center and the Stanford Medicine Department of Neurosurgery. Together we are working toward identifying ways to improve current rehabilitation strategies for preventing lower limb bone fractures after spinal cord injury. I was awarded a Rehabilitation Research & Development Level One Career Development Award in 2016 to advance my professional development toward becoming an independent researcher at the VA. Under the CDA-1, I will investigate the potential of several functional electrical stimulation assisted rehabilitation exercises to contribute to lower limb bone health after spinal cord injury. It should be noted that prior to 2014, my work was published under my maiden name, Rebecca L. Lathrop.   
  
B. Positions and Honors   
  
Employment   
2014-present Research Biomedical Engineer, VA Palo Alto Health Care System, Palo Alto, CA   
  
Honors   
2005-2007 Clare Booth Luce Research Scholar   
2007 Hope College Outstanding Senior Engineer   
2009-2012 NSF Graduate Research Fellow   
2012 OSU Women in Engineering, Distinguished Graduate Student Award   
2013 Richard O’Connor Award, Arthroscopy Association of North America   
2013 Edward J. Ray Travel Award for Scholarship and Service   
2016-2017 Postdoctoral Scholar, Stanford University   
  
Professional Societies   
2008-2014 American Society of Biomechanics (ASB)   
2010-2014 American Society for Engineering Education (ASEE)   
2013-2014 American College of Sports Medicine (ACSM)   
2013-2014 Gait and Clinical Movement Analysis Society (GCMAS)   
2016-present Academy of Spinal Cord Injury Professionals (ASCIP)   
  
C. Contribution to Science   
  
1. My early research in biomechanics addressed body weight supported treadmill training (BWSTT) rehabilitation for individuals with incomplete spinal cord injury (SCI). Recovery of locomotion or improvement in locomotor patterns after incomplete SCI relies on specific sensory cues such as limb loading and lower extremity joint position. My work aimed to provide clinicians with objective guidelines for choosing training parameters which effectively replicate the kinematic and kinetic patterns associated with overground walking. Using an instrumented treadmill, three-dimensional motion capture and musculoskeletal modeling, I collected and analyzed data within the clinical workspace of The Ohio State University’s NeuroRecovery Network Center. I identified combinations of treadmill speed and body weight support that replicate the biomechanics of overground walking in healthy volunteers. This work was an early step toward understanding and improving rehabilitation for individuals with SCI and has additional applications for other neurological injuries and disabilities for which BWSTT is also used.   
  
a. Lathrop, R.L., Locomotor Training: The effects of treadmill speed and body weight support on lower extremity joint kinematics and kinetics (Master’s Thesis, The Ohio State University, 2009).   
b. Lathrop, R.L., Morin, B., Worthen-Chaudhari, L., Chaudhari, A.M.W., Basso, D.M., Schmiedeler, J.P., and Siston, R.A., “The effects of speed and body weight support on lower extremity kinematics,” Annual Meeting of the American Society of Biomechanics, State College, PA, August 2009. Abstract #1003.   
c. Morin, B., Lathrop, R.L., Worthen-Chaudhari, L., Basso, D.M., Schmiedeler, J.P., and Siston, R.A., “The Effect of body weight support on the ankle-foot rollover shape,” Annual Meeting of the American Society of Biomechanics, State College, PA, August 2009. Abstract #1044.   
  
2. Motion capture and musculoskeletal modeling are common techniques in biomechanical analysis. Within these techniques many simplifying assumptions are made which warrant investigation to better understand the imposed limitations and to improve research techniques. My work in this area has focused on techniques for generating musculoskeletal models from skin-based marker data and evaluating the common assumption of symmetry during normal walking. I identified variability and potential errors associated with generating musculoskeletal models from skin-based marker data in the biomechanical modeling software OpenSim. The results of my work have been used to guide selection of data collection and analysis procedures in laboratories at The Ohio State University and beyond. I also identified asymmetry in lower extremity joint moments during walking in healthy adult populations. Knowledge of kinetic asymmetry during healthy walking has important implications on human movement analysis in clinical and research settings, particularly in evaluations where asymmetry may be viewed as an indicator of injury or pathology.   
  
a. Lathrop-Lambach, R.L. et al., Evidence for joint moment asymmetry in healthy populations during gait. Gait & Posture 40:526–531, 2014.   
b. Lathrop, R.L., Chaudhari, A.M.W., Siston, R.A., Comparative assessment of bone pose estimation using point cluster technique and OpenSim. J Biomech Eng 133:114503–114503, 2011.   
  
3. I also investigated knee cartilage injuries and risks for cartilage defect progression toward osteoarthritis. The goal of this work was to improve treatment of cartilage injuries by identifying conditions which may place an individual at high risk for rapid cartilage defect progression. I used human movement analysis and medical imaging to identify the presence and progression of cartilage defects in the knees of collegiate football linemen over a single season of football play, and determined movement patterns that place these athletes at risk for cartilage degeneration. Using finite element modeling and simulation as well as experimental testing in an animal model, I determined the influence of joint loading, meniscectomy, and subject specific factors such as bone geometry on cartilage stress and the risk of cartilage defect progression. The results of these investigations have advanced our understanding of factors which influence cartilage defect progression and have identified potential predictive relationships between subject-specific parameters and changes in cartilage health as a step toward improving treatment of knee cartilage injuries.   
  
a. Lambach, R.L., Young, J.W., Flanigan, D.C., Siston, R.A., Chaudhari, A.M., Knee Joint Loading during Lineman-Specific Movements in American Football Player,” J Appl Biomech, 31:142-148, 2015.   
b. Lathrop, R.L., Investigation of measurable biomechanical factors that may influence articular cartilage degeneration in the knee. (Doctoral Dissertation, The Ohio State University, 2014).   
c. Lathrop, R.L., Adams, A.C., Lambach, M.D., Flanigan, D.C., Siston, R.A., “Mechanisms of articular cartilage defect progression may differ following meniscectomy,” Orthopaedic Research Society 2013 Annual Meeting, San Antonio, TX, January 2013. Paper #0015. (Podium Presentation)   
d. Flanigan, D.C., Harris, J.D., Brockmeier, P.M., Lathrop, R.L., Siston, R.A., The effects of defect size, orientation, and location on subchondral bone contact in oval-shaped experimental articular cartilage defects in a bovine knee model. Knee Surg Sports Traumatol Arthrosc 22:174–180, 2012.   
  
4. My current work focuses on bone health after SCI. Exercises such as functional electrical stimulation (FES)-assisted ergometer rowing have shown promise in maintaining bone health after SCI. My work in this area aims to determine whether bone loss after injury can be modulated by an FES rowing exercise intervention program. We have successfully established an FES rowing program at VA Palo Alto, and capture Three-dimensional force and movement data while research participants with SCI perform FES rowing exercises. I have developed subject-specific musculoskeletal models of individuals with SCI and use these models to estimate muscle forces and skeletal loading imposed on the lower limbs during FES rowing. The effectiveness of the rowing intervention program on bone health is assessed using bone density assessments including dual-energy x-ray energy absorptiometry (DXA) and peripheral quantitative computed tomography (pQCT). In a separate study, I am also investigating the potential of FES-assisted exercises, including FES rowing, FES cycling, and standing frame therapy with stimulation of the quadriceps muscles, to contribute to bone health after SCI by determining the lower limb skeletal forces produced during each activity. Identifying the skeletal forces produced during various activities designed to exercise the lower limbs after SCI will provide clinical insight into which exercises may have the greatest potential to contribute to bone health after SCI.   
  
a. Lambach, R.L., Kiratli, B.J., Creasey, G.H., and Beaupre, G.S., “Effect of FES Rowing on Bone Density: First Subject Results,” 2016 Academy of Spinal Cord Injury Professionals Educational Conference & Expo, Nashville, TN, September 7, 2016, Abstract #99. (Podium Presentation)   
b. Lambach, R.L., Stafford, N.E., Kolesar, J.A., Kiratli, B.J., Creasey, G.H., Gibbons, R.S., Andrews, B.J., Beaupre, G.S., “Row, row, row your bones: Can FES rowing prevent osteoporosis after spinal cord injury?,” 2017 Stanford University Postdoc Symposium, Stanford, CA, October 13, 2017. (Podium Presentation)   
  
Publicly Available Database of Publications   
A complete list of my peer reviewed publications can be found at: https://scholar.google.com/citations?user=KRJEHtAAAAAJ   
  
D. Research Support   
  
Active   
B2114-M Lambach (PI) 04/01/2016 – 06/23/2018   
Functional Electrical Stimulation-Assisted Exercise and Bone Health after Spinal Cord Injury   
The goal of this project is to determine the forces generated in the legs of individuals with spinal cord injury while they perform several activities using functional electrical stimulation (FES) on the muscles in their legs. This is a Level 1 Career Development Award.   
Role: PI   
  
B1410P Beaupre (PI) 07/01/14 – 06/30/16 (no-cost extension to 10/16/17)   
Using Musculoskeletal Models to Assess FES Rowing for Skeletal Health after SCI   
The goal of this research is to determine if preserving bone health following a clinical-based functional electrical stimulation rowing intervention is broadly achievable in individuals with spinal cord injury in the sub-acute phase of injury.   
Role: IRB protocol administration, subject recruitment, obtaining informed consent, training subjects to FES-row, motion capture, musculoskeletal modeling, data analysis, abstract and manuscript preparation

***Nicole Stafford, BS***  
Stanford University

*(no CV uploaded)*

***Julie Kolesar, PhD***  
Va Palo Alto Health Care System

*(no CV uploaded)*

***Jenny Kiratli, PhD***  
Va Palo Alto Health Care System

*(no CV uploaded)*

***Graham Creasey, MD***  
Va Palo Alto Health Care System

*(no CV uploaded)*

***Robin Gibbons, PhD***  
University College London

*(no CV uploaded)*

***Brian Andrews, PhD***  
University of Warwick

*(no CV uploaded)*

***Gary Beaupre, PhD***  
Va Palo Alto Health Care System

*(no CV uploaded)*

**156**

**Zoledronic acid attenuates bone loss following complete traumatic spinal cord injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Christina Oleson, MD***  
Thomas Jefferson University

**CV:**  
Lectures by Invitation:   
2011 Spinal cord injury classification: Comparison of human and computer algorithm for ASIA impairment scale grades. 3rd joint meeting of the International Spinal Cord Society and the American Spinal Injury Association, Washington DC   
  
2014 The role of nutrition in pressure ulcer development and healing Annual Meeting of the American Spinal Injury Association San Antonio, Texas   
  
2016 Workshop on performing the International Standards for Neurological Classification of Spinal Cord Injury Annual Meeting of the American Spinal Injury Association Philadelphia, Pennsylvania   
  
2016 Osteoporosis rehabilitation Grand Rounds, Dept. of Physical Medicine and Rehabilitation, Ohio State University Columbus, Ohio   
  
2017 Osteoporosis rehabilitation in pediatric SCI and spinal bifida. Annual Meeting of the American Spinal Injury Association, Albuquerque, New Mexico.   
  
2017 Osteoporosis in adult and pediatric spinal cord injury and spina bifida. Grand Rounds, Georgetown University Dept. of Physical Medicine and Rehabilitation, Medstar National Rehabilitation Hospital, Washington, D.C   
  
2017 Predicting outcomes following traumatic spinal cord injury. Faculty and Resident Seminar, Metrohealth Medical Center, Case Western Reserve University Dept. of Physical Medicine and Rehabilitation, Cleveland, Ohio

***Ralph Marino, MD***  
Thomas Jefferson University

*(no CV uploaded)*

***Christopher Formal, MD***  
Magee Rehabilitation Hospital

*(no CV uploaded)*

***Christopher Modlesky, PhD***  
University of Georgia

*(no CV uploaded)*

**157**

**Shifting the paradigm: Why some pressure injuries may be unpreventable for individuals with spinal cord injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Kath Bogie, D.Phil***  
Case Western Reserve University/Louis Stokes Cleveland Va Medical Center

**CV:**  
Kath Bogie, D.Phil   
Associate Professor, Dept of Orthopaedics, Case Western Reserve University   
Senior Research Scientist, Advanced Platform Technology Center, Louis Stokes Cleveland VA Medical Center   
  
Personal Statement:   
My translational research focuses on the treatment and prevention of chronic wounds – with a particular focus on pressure injures in individuals with spinal cord injury. My current research includes studies to determine why some people experience a continuous cycle of pressure injuries while others remain pressure injury free. I also lead the development of technology and interventions for effective wound therapy and prevention. I have over 17 years’ experience leading multidisciplinary teams including biomedical engineers, electrical engineers, clinicians, biologists and statisticians to develop and evaluate novel clinically –focused approaches from biomarkers to device development and population risk factors. I have experience in all aspects of study oversight, including monitoring budgets, complying with regulatory requirements for both human and animal studies and adhering to stated goals and timelines. I mentor students with a variety of backgrounds including biomedical engineers and clinician researchers. In my capacity as Director of the Additive Manufacturing for Biotechnology Core I provide support for the development and testing of novel biomedical approaches incorporating additive manufacturing to improve the quality of life and health for all.   
  
B. Positions and Honors   
Professional Experience   
1984-1985 Research Assistant, North Staffordshire Bio-Medical Engineering Unit, Stoke-on-Trent, UK   
1989-1994 Associate Clinical Scientist, Queen Mary and Westfield College, University of London, London, UK.   
1989-1992 Research Bioengineer, National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, UK   
1992-1994 Consultant Bioengineer, Tissue Viability Clinic, National Spinal Injuries Centre, Stoke Mandeville Hospital, Aylesbury, UK   
1997-2001 Research Associate, Case Western Reserve University, Cleveland, Ohio   
2001-2009 Senior Research Associate, Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2004-present Senior Research Scientist, Cleveland Dept of Veterans Affairs Medical Center   
2009-2017 Adjunct Assistant Professor (Primary), Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2009-2017 Adjunct Assistant Professor (Secondary), Dept of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
2010- 2013 Research co-Director, Advanced SCIM Fellowship Program, Cleveland Dept of Veterans Affairs Medical Center   
2010 - 2014 Site Director, DETECT (Diagnostic Engineering Technologies for Evaluating Connective Tissues), Wright Center for Sensor Systems Engineering, Ohio Third Frontier Wright Projects Program   
2013 Director, Health Monitoring and Maintenance Research, Advanced Platform Technology Center, Cleveland Veterans Affairs Medical Center, Cleveland, Ohio   
2013 Director, Biocompatibility Testing Lab, Cleveland Dept. of Veterans Affairs Medical Center, Cleveland, Ohio   
2013 Director, Additive Manufacturing for Biotechnology Core, Case Western Reserve University   
2017 Associate Professor (Primary), Dept of Orthopaedics, Case Western Reserve University, Cleveland, Ohio   
2017 Associate Professor (Secondary), Dept of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
  
C. Contributions to Science   
1) Pressure injury prevention I have developed tools for multivariate tissue health assessment and to obtain more useful information from interface pressure mapping .I lead studies to determine personalized pressure injury risk based on multiple relevant intrinsic and extrinsic factors.   
a. Bogie K, Wang X, Fei B, Sun J. New technique for real-time interface pressure analysis: Getting more out of large image data sets. J Rehabil Res Dev. 2008, 45(4)   
b. Kim JH, Wang X, Ho CH, Bogie KM. Physiological measurements of tissue health; implications for clinical practice. Int Wound J. 2012 Jan 30. doi: 10.1111/j.1742-481X.2011.00935.x.   
c. Wu GA, Bogie KM. Not just quantity: gluteus maximus muscle characteristics in able-bodied and SCI individuals - implications for tissue viability. J Tissue Viability. 2013 Apr 21. PMID: 23615320   
d. Goodman BL, Schindler A, Washington M, Bogie KM, Ho CH. Factors in rehospitalisation for severe pressure ulcer care in spinal cord injury/disorders. J Wound Care. 2014 PMID: 24762380   
  
2) Chronic wound therapeutic interventions: Translational research in the area of wound therapy has included studies of the physiological effects of electrical stimulation on chronic wounds.   
a. Bogie KM, Garverick SL, Zorman CA, Howe DS, Integrated surface stimulation device for pain management and wound therapy. Patent #: 9320907 awarded April 26, 2016   
b. Graebert J, Henzel MK; Honda KS, Bogie KM. Systemic evaluation of electrical stimulation for ischemic wound therapy in a pre-clinical in-vivo model Advances in Wound Care – Discovery Express 2014, 3(6): 428-437   
c. Howe DS, Dunning J, Zorman C, Garverick SL, Bogie KM. Development of an integrated surface stimulation device for systematic evaluation of wound electrotherapy. Ann Biomed Eng. 2015 Feb;43(2):306-13. Epub 2014 Oct 2. PMID: 25274162.   
  
3) Pressure injury prevention- dynamic intermittent gluteal stimulation (iGSTIM): Innovative clinical feasibility studies using a percutaneous iGSTIM system. showed that regular daily use of dynamic iGSTIM has a positive impact on multiple indirect indicators of tissue health,   
a. Bogie KM, Wang X, Triolo RJ. Long term prevention of pressure ulcers in high risk individuals: a single case study of the use of gluteal NMES. Arch Phys Med Rehabil, 87(4):585-91, 2006   
b. Kim J, Ho CH, Wang X, Bogie K. The use of sensory electrical stimulation for pressure ulcer prevention. Physiother Theory Pract. 2010 Nov;26(8):528-36. Epub 2010 Jul 22   
c. Wu GA, Lombardo L, Triolo RJ, Bogie KM. The effects of combined trunk and gluteal neuromuscular electrical stimulation on posture and tissue health in SCI. PM&R. 2013 Mar 28. PMID: 23542776   
  
4) Multidisciplinary research in chronic wound management: I have written 8 chapters and 12 invited papers on this area, including both teaching and novel approaches, and developed a consensus paper that set priorities on four categories: risk factors, clinical management, education and environment of care.   
a. Bogie K, Ho CH. Multidisciplinary approaches to the pressure ulcer problem. OWM. 53(10): 26-32, 2007   
b. Ho CH, Bogie K., Integrating Wound Care Research into Clinical Practice OWM 53(10): 18-25, 2007   
c. Henzel MK, Bogie KM, Guihan M, Ho CH. Pressure ulcer management and research priorities for patients with spinal cord injury: Consensus opinion from SCI QUERI Expert Panel on Pressure Ulcer Research Implementation. J Rehabil Res Dev. 2011; 48(3):xi–xxxii.   
  
5) Wound measurement: We found that electronic devices are superior to manual techniques in achieving valid measurements of wound area. and that a reliable 3D wound measurement can be obtained without having to depend on the limited resources of the specialist wound care nurse. Accurate monitoring of wound geometry can adaptively predict healing progression.   
a. Haghpanah S, Bogie KM, Banks PG, Wang X, Ho CH. Reliability of electronic vs. manual wound measurement methods. Arch Phys Med Rehabil. 87(10):1396-402, 2006.   
b. Davis AJ, Nishimura J, Seton J, Goodman BL, Ho CH, Bogie KM. Repeatability and clinical utility in stereophotogrammetric measurements of chronic wounds. J Wound Care. 2013 PMID: 23665664   
c. Xu Y, Sun J, Carter RR, Bogie KM. Personalized prediction of chronic wound healing: An exponential mixed effects model using stereophotogrammetric measurement. JTV. 2014 PMID: 24810677   
  
Complete List of Published Work in MyBibliography:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/collections/public/1Rok1sZA\_i4t782Z5SHM4VF5d/?sort=date&direction=ascending   
  
Recent Presentations (prior 5 years)   
1. October 2014: Shear and Tissue Integrity - the state of the science. ISO Standards group, London, UK.   
Practical challenges in clinical assessment of soft tissue shear: where we are now and future potentials.   
  
2. February 2016: Association of Academic Physiatrists Annual Meeting, Sacramento, CA   
Personalized pressure ulcer prevention in spinal cord injury: developing a multivariate biomarker approach   
  
3. April 2016: Research showCASE 2016, Case Western Reserve University, Cleveland, OH   
A R package for Personalized Wound Healing Prediction/Monitoring with Shiny App   
  
4. September 2016: World Union of Wound Healing Societies, International Congress, Florence, Italy   
Harnessing bioinformatics to provide individualized pressure ulcer prevention planning based on clinical practice guideline prioritization   
  
5. September 2016: World Union of Wound Healing Societies, International Congress, Florence, Italy   
Multivariate biomarkers for personalized pressure ulcer prevention in spinal cord injury.   
  
6. October 2016: Heal Ohio- Akron, Ohio.   
From the 18th Century to today: Electrotherapy for ischemic wounds.   
  
7. August 2017: Military Health System Research Symposium, Orlando FL   
MAEDS: Modular Adaptive Electrotherapy Delivery System. An electroceutical approach for effective treatment of wound infection and promotion of healing   
  
8. August 2017: Paralyzed Veterans of America (PVA) 7th Annual Summit + Expo: National Harbor, MD   
Why some pressure injuries may be unpreventable: Biomarkers for identification of personalized pressure injury risk   
  
9. August 2017: Paralyzed Veterans of America (PVA) 7th Annual Summit + Expo: National Harbor, MD   
A Personalized Healthcare tool for Pressure Injury Prevention.

***Kristi Henzel, MD, PhD***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***MaryAnn Richmond, MD, DVM***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Nannette Alvarado, MD***  
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*(no CV uploaded)*

***John McDaniel, PhD***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Jennifer Graebert, BA***  
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Katie Schwartz,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***David Lemmer,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Jacinta Seton,***   
Louis Stokes Cleveland Va Medical Center

*(no CV uploaded)*

***Youjun Li,***   
Case Western Reserve University

*(no CV uploaded)*

***Jiayang Sun, PhD***  
Case Western Reserve University

*(no CV uploaded)*

**158**

**Core Temperature Lability during Heat Exposure Predicts Cognitive Performance in Persons with Spinal Cord Injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Nina Kumar, BS***  
Va Rr&D National Center for the Medical Consequences of Spinal Cord Injury, James J. Peters Vamc

*(no CV uploaded)*

***Marin Graham, BS, SPT***  
New York Institute of Technology, Department of Physical Therapy, School of Health Professions

*(no CV uploaded)*

***Patricia Leung, BS, SPT***  
New York Institute of Technology, Department of Physical Therapy, School of Health Professions

*(no CV uploaded)*

***Tishina Tittley, BA***  
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*(no CV uploaded)*

***Oriana Tascione, BS***  
Va Rr&D National Center for the Medical Consequences of Spinal Cord Injury, James J. Peters Vamc

*(no CV uploaded)*

***Charlene Bang, PsyD***  
Medical Service, James J. Peters Vamc

*(no CV uploaded)*

***William Bauman, MD***  
Va Rr&D National Center for the Medical Consequences of Spinal Cord Injury, James J. Peters Vamc

*(no CV uploaded)*

***John Handrakis, PT, DPT, EdD, NCS***  
Va Rr&D National Center for the Medical Consequences of Spinal Cord Injury, James J. Peters Vamc

**CV:**  
Biographical Sketch   
  
Name: John P. Handrakis PT, DPT, EdD, NCS   
  
Position Title: Research Health Science Specialist, VA RR&D Center for the Medical Consequences of Spinal Cord Injury; Professor, Department of Physical Therapy, New York Institute of Technology   
  
A. Personal Statement   
  
The long-term goal of my research is to identify the physiological and clinical consequences of thermal dysregulation after spinal cord injury (SCI), their impact on quality of life (QoL), and develop interventions to mitigate those consequences in order to improve clinical care, health, and QoL for our veterans with SCI. Using a thermal chamber for controlled exposure to cool ambient temperatures and comparing physiological and neuropsychological outcome measures, we have demonstrated that the physiological response to cool temperatures and the associated changes in cognitive performance are different in persons with high-level SCI compared to able-bodied (AB). In support of the significance of these findings in achieving optimal health and QoL, we also found that persons with tetraplegia reported that cold exposure negatively impacted their ability to perform activities of daily living (ADLs), such as bathing routines, and instrumental ADL (IADL), such as keeping physician appointments and completing work duties. We have also demonstrated that a modest rise in Tcore after warm exposure in persons with tetraplegia was associated with improvements in cognitive performance. These data suggest that the typical Tcore of persons with tetraplegia may not be optimal for cognitive performance.   
These published findings warrant investigation of safe and effective interventions to address one of the autonomic consequences of SCI, thermodysregulation. We have collaborated with the Dr. Gregory Freisinger, Department of Civil and Mechanical Engineering, U.S. Military Academy, West Point to develop a self-regulating heated vest, which would serve to minimize some of the negative experiences of persons with high-level SCI during the colder seasonal conditions typical of the northeast.   
My background of over 30 years of providing physical therapy to persons with neurological injuries including SCI, 10 years of research studying the cardiovascular/autonomic/thermoregulatory consequences of SCI, and 11 years of teaching neuro-rehabilitation to doctoral physical therapy students has made me acutely aware of the barrier that cold ambient temperatures pose for persons with SCI.   
  
B. Positions and Honors   
Positions   
1981-1984 Senior Physical Therapist, Rusk Institute of Rehabilitation, NYU Medical Center, New York, NY   
1981-1984 Instructor, PTA Program, NYU Medical Center, New York, NY   
1984-2007 Physical Therapist, Visiting Nurse Service of NY, Jackson Heights, NY   
1986-1996 Physical Therapist, Eastside Sports Physical Therapy, PC, New York, NY   
1996-1998 Senior Physical Therapist, Westchester Sports Physical Therapy, PC, Scarsdale, NY   
1998-2015 Physical Therapist, Westchester Sports Physical Therapy PC, Scarsdale, NY (per diem)   
1998-2017 Physical Therapist, Astoria Physical Therapy, Astoria, NY (per diem)   
1999-2004 Adjunct Professor, Dept of Physical Therapy, New York Institute of Technology, Old Westbury, NY   
2005-2011 Assistant Professor, Dept of Physical Therapy, New York Institute of Technology, OW, NY   
2011-2017 Associate Professor, Dept of Physical Therapy, New York Institute of Technology, OW, NY   
2008-Present Health Science Specialist, Center for the Medical Consequences of Spinal Cord Injury, James J. Peters VA Medical Center, Bronx, NY (5/8ths)   
2014-Present Visiting Associate Professor, Department of Physical Therapy, State University of NY at Stony Brook, Stony Brook, NY (Summer semester: Neuro-Assessment)   
2017-Present Professor, Dept of Physical Therapy, New York Institute of Technology, OW, NY   
  
Other Experience and Professional Memberships   
2004-2008 WOC Research Assistant, JJP Center of Excellence for the Medical Consequences of SCI   
2006-Present Chair of the Curriculum Committee, Dept of Physical Therapy, NYIT, Old Westbury, NY   
2008-2009 Member, Dean’s Hour Lecture Series and Colloquium Committee, NYIT, Old Westbury, NY   
2009-2010 Member, Academic Senate, NYIT, Old Westbury, NY   
2009-2010 Member, Communications Committee and the Educational Technology Committee   
2009-2012 Member, Institutional Review Board, James J. Peters VA Medical Center, Bronx, NY   
2010-Present Member, Institutional Review Board, Biomedical and Health Sciences Research, NYIT, OW, NY   
2012-2013 Chair of the Departmental Personnel Committee, Dept of Physical Therapy, NYIT, OW, NY   
2012-Present Member of the School Personnel Committee, School of Health Professions, NYIT, OW, NY   
1982-Present Member, American Physical Therapy Association   
2005-Present Member, Neurology Section member, APTA   
2008-2015 Member, American Paraplegia Society   
2008-2015 Member, American Physiological Society   
2008-Present Member, Academy of Spinal Cord Injury Professionals   
2010-Present Peer Reviewer, International Journal of Sports Medicine   
2011-Present Peer Reviewer, Physical Therapy Journal of the APTA   
2011-Present Peer Reviewer, Archives of Physical Medicine and Rehabilitation   
2013-Present Peer Reviewer, Topics in Spinal Cord Injury and Rehabilitation   
2015-Present Peer Reviewer, Journal of Spinal Cord Medicine   
2016-2017 Peer Reviewer, Journal of Rehabilitation Research and Development   
2016-Present Member, American Spinal Injury Association (ASIA) and the Autonomic Standards Committee (ASA). Nominated to chair the thermoregulation subcommittee of the ASA in development of a reliable method of assessing thermoregulatory impairment after SCI   
2016-Present Awarded board-certified clinical specialist in Neurologic Physical Therapy (NCS) by the American Board of Physical Therapy Specialties (ABPTS)   
  
Honors   
2005 Awarded the ESPRIT Award, by the Visiting Nurse Service of NY, for outstanding service and commitment to excellence in patient care, initiative, teamwork, and fiscal responsibility   
2009 Distinguished Teaching Award from NYIT, School of Health Professions   
2012 Distinguished Scholarship Award from NYIT, School of Health Professions   
2016 Awarded “Best Original Research Poster” at the Academy of Spinal Cord Injury Professionals national conference in Nashville, Tennessee   
2017 Awarded “2nd Place” in the poster competition at the Annual Scientific Meeting of the American Spinal Injury Association (ASIA) in Albuquerque, New Mexico   
  
Board Certifications   
2016 Neurologic Clinical Specialist (NCS): awarded by the American Board of Physical Therapy Specialties (ABPTS)   
C. Contribution to Science - full Handrakis citation list at: http://www.ncbi.nlm.nih.gov/sites/myncbi/1RMyNyaQXlQ7/bibliography/42791715/public/?sort=date&direction=ascending   
  
1. Blood pressure and cerebral blood flow in persons with tetraplegia.   
My earlier research in the area of the autonomic consequences of spinal cord injury (SCI) focused on the relationship of cerebral blood flow (CBF) and blood pressure (BP) after sympathetic interruption. We aimed to determine if the typical lower BPs in persons with cervical SCI (tetraplegia) resulted in CBF rates that were different in persons with tetraplegia compared to able-bodied controls. The ambitious goal of this study was to determine if the lower limit of cerebral autoregulation was expanded in persons with long standing tetraplegia.1 While this objective could not be definitively determined from these data due to the small sample of subjects with tetraplegia who became presyncopal, the evidence suggests that CBF is maintained in persons with tetraplegia within a range of scores comparable to the controls at systemic pressures which fall outside the theorized lower limit of autoregulation. This study has provided suggestive evidence that persons with chronic tetraplegia may be able to maintain CBF within a similar range as an age-matched control group despite having lower mean arterial pressure. As expected, the renin-angiotensin system was shown to be more active in the maintenance of blood pressure during orthostatic challenge in subjects with tetraplegia than in controls. Role: Co-Investigator   
  
1. Handrakis JP, DeMeersman RE, Rosado-Rivera D, et al. Effect of hypotensive challenge on systemic hemodynamics and cerebral blood flow in persons with tetraplegia. Clin. Auton. Res. 2009;19(1):39-45.   
  
2. Identifying the impact of thermal dysregulation on cognitive performance and quality of life during temperature challenges in persons with tetraplegia.   
Thermoregulation is another homeostatic process affected by the interruption of sympathetic pathways after SCI, which has under-appreciated clinical consequences. Unlike conditions of autonomic dysreflexia or hyperglycemia, the onset of hypothermia is much more insidious. The interruption of sympathetic control of thermoregulatory mechanisms in persons with more neurologically-complete forms of tetraplegia can result in declines in Tcore to levels approaching hypothermia by even mildly cool temperature exposure. This publication demonstrated that even limited exposure to cool temperatures in persons with tetraplegia is associated with deterioration of cognitive performance in the areas of working memory and executive function.1 Suboptimal cognitive performance is clinically meaningful because impaired mentation most likely negatively affects quality of life and optimal community integration.   
Exposure to hot ambient temperatures resulted in improved cognitive functioning in persons with tetraplegia. This finding suggests that the typical subnormal core body temperature of persons with tetraplegia may not be ideal for optimal cognitive performance. 2   
We have also provided evidence of the clinical relevance of thermoregulatory dysfunction using subjective reporting during uncontrolled exposure to the cool seasonal temperatures of late fall, winter, and early spring. We demonstrated a greater negative impact of the cooler seasons on personal comfort and the ability to perform vital routine activities in persons with tetraplegia than that of non-SCI controls.3   
Roles: Principal Investigator   
  
1. Handrakis JP, Liu SA, Rosado-Rivera D, et al. Effect of Mild Cold Exposure on Cognition in Persons with Tetraplegia. J Neurotrauma. 2015;32(15):1168-1175.   
2. Handrakis JP, Guan ZN, Nulty JW, Tascione O, Rosado-Rivera D, White D, Bang C, Spungen A, Bauman WA. Effect of Heat Exposure on Cognition in Persons with Tetraplegia. J Neurotrauma; 2017 May 2. doi: 10.1089/neu.2016.4850. [Epub ahead of print] PubMed PMID: 28462685.   
3. Handrakis JP, Rosado-Rivera D, Singh K, et al. Self-reported effects of cold temperature exposure in persons with tetraplegia. J Spinal Cord Med. 2016:1-7.   
  
  
D. Research Support   
Ongoing Research Support   
VA RR&D #B2020-C (PIs: Bauman and Spungen) 07/01/2016-06/30/2021   
Center of Excellence for the Medical Consequences of SCI   
Role: Co-Investigator   
  
Award ID #315696 (PI: Handrakis) 12/01/2014-12/31/2017 (NCE)   
Craig H. Neilsen Foundation: Neilsen Pilot Research Grant 14   
Thermoregulation and Cognition during Cool Ambient Exposure in Tetraplegia   
Role: Principal Investigator   
  
Completed Research Support   
Award ID # I21RX001734 (PI: Handrakis) 06/01/2015-5/31/2017   
VA RR&D SPiRE   
Effect of Heat Exposure on Cognition in Persons with Tetraplegia   
Role: Principal Investigator   
  
VA RR&D #B9212-C (PIs: Bauman and Spungen) 07/01/2011-06/30/2016   
Center of Excellence for the Medical Consequences of Spinal Cord Injury   
Role: Co-Investigator

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**Should we measure or estimate energy expenditure in spinal cord injury patients? A comparison of indirect calorimetry and commonly used predictive equations**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Samford Wong, MSc (Med Sci)., PhD., RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

**CV:**  
Evidence of Esteem   
2010: Nutrition Society: Postgraduate Competition Award   
2010: Hospital Infection Society: The Mike Emmerson Young Investigator’s Award   
2011: Buckinghamshire Healthcare NHS Trust: Staff Award: winner of the Courteous and Professional category   
2012: International Spinal Cord Society: Spinal Cord Prize – Silver Medal   
2013: American Spinal Injury Association meeting: Award papers / posters   
2013: ESPEN: Outstanding abstract (8 out of 576 accepted abstracts)   
2013: International Spinal Cord Society: Award paper (2nd place)   
2014: The Rose Simmond’s Award, the British Dietetic Association.   
2015: Spinal Injury Association, shortlisted candidate for the Award for Innovation and Research   
2017: New member spotlight – American Spinal Injury Association.   
Project Grants   
Aventis Pharma Limited 2008-09; (£3000).Wong SS (CI) et al Spinal Clinic for Obesity Outpatient Project.   
Abbott Nutrition 2009-11 (£15,000). Wong SS (CI) et al. Nutritional status in patient with spinal cord injury: a cross sectional, multi centre study.   
Hospital Infection Society 2010-12 (£10,000) & Yakult 2009-11 (£5,000) Wong SS (CI), et al. Do probiotics prevent antibiotics associated diarrhoea in SCI patients: a randomised controlled trial   
Waterloo Foundation (£9,091) & Abbott Nutrition 2010-12 (£9,091) Wong SS (CI), et al. A single centred study of the nutritional status of paediatric patients with spinal cord injuries: An Observational study.   
Buckinghamshire Healthcare NHS Trust (£10,000) Wong SS (CI), et al. Enhanced Pressure ulcers Recovery Programme (E PREP): A pilot study on the effect of specialised amino acid supplements in the management of pressure ulcers in patients with spinal cord injuries: a double-blinded, randomised, placebo-controlled trial   
Yakult Europe 2014-2016 (£345,793) Wong S (CI), Jamous A, O’Driscoll J, Hirani SP, Whelan K & Forbes A. Efficacy of Consuming Lactobacillus casei Shirota (LcS) In Spinal cord injury Patients (ECLISP) Effect of probiotics on gastrointestinal function in patients with spinal cord injuries: a multicentre, randomised, double-blinded, placebo-controlled trial.   
Buckinghamshire Healthcare NHS Trust (£15,000) Gainullina I, Graham A, Saif M & Wong S. Efficacy of ergocalciferol supplementation on urine calcium among patients with spinal cord injury: a randomised double-blinded, placebo-controlled trail.   
Equipment grants   
Buckinghamshire Healthcare NHS Trust’s Charitable Trust Fund (2014) Purchase of Quark RMR, Indirect calorimetry. COSMED SRL, Rome, Italy. (£24,989)   
Total research income (2007 – 2014) inclusive £ 476,714   
Conferences, symposia and workshops   
Co-ordination and management of research symposia and teaching workshops   
Since 2012 – Samford organise annual nutrition study day for covering nutritional Needs of Patients Following Spinal Cord Injury, National Spinal Injuries Centre, Stoke Mandeville Hospital   
Invited lecturer   
2011 – (present) – teaching in UCL MSc: Clinical Nutrition module in Spinal Cord Injuries   
2012 March – Development and validation of Spinal Nutrition Screening Tool in patients with spinal cord injuries. University College London Medical Grand Round   
2012 November – Do probiotics prevent antibiotic-associated diarrhoea in patients with spinal cord injuries: a randomized controlled trial: an interim analysis. FIS / HIS 2012 conference, Liverpool ACC.   
2013 April – Patient and Public Involvement in Clinical Research. University of Aberdeen / Medical Research Council, Aberdeen, Scotland   
2014 November – Do probiotic prevent antibiotic-associated diarrhoea in patients with spinal cord injuries – a RCT. FIS / HIS 2014 conference, Lyon, France.   
2015 April – International Probiotic Study Day, Yakult Europe, Berlin, Germany.   
2016 November – Shirota Conference, Tokyo, Japan   
Book / Guideline contribution   
1.MASCIP (Multidisciplinary Association for Spinal Cord Injury Profession) (2010) Guidelines on rehabilitation of older adult with spinal cord injury – Wong S (2010) Chapter on Nutrition www.mascip.co.uk accepted, launched in Nov MASCIP conference   
2.International Spinal Cord Society (2012) E-learning modules – Nutritional management after spinal cord injuries (Basic and Advanced module) – Kovindha A, Wong S, Baumann W, et al. http://www.elearnsci.org/ http://www.elearnsci.org/intro.aspx?id=5&category=Doctors   
3. British Society of Rehabilitation Medicine (BSRM) (2012) Nutritional management in neuro- rehabilitation for UK national registrar training. Wong S, Spillman L & Graham A (2012)   
4. British Dietetics Association (2014) Manual of Dietetics Practice, 5th Edition – Twist A & Wong S (2014) Spinal Cord Injuries. Wiley Blackwell   
5. Consortium for Spinal Cord Medicine (2014) Pressure ulcer prevention and treatment following injury: A clinical practice guideline for health-care providers, 2nd Edition. Wong S - Nutrition section.   
6. MASCIP (2014-16) Weight management guideline for individuals with spinal cord injuries – Wong S (Guideline Chair), Bearne P, Fitzsimons L, Graham A, Taylor C, Twist A, Smith E.   
7. International Spinal Cord Society (ISCOS) (2014/5) ISCOS text book - Nutritional management after spinal cord injuries. Kovindha A &Wong S   
8. British Dietetics Association (2016) Advanced Nutrition and Dietetics in Nutrition Support – Wong S (2015) Spinal Cord Injuries.   
  
Recent peer-reviewed publications:   
1. Wong S, et al (2011) Spinal Clinic for Obese Out-patient Project (SCOOP) – a 1 year report. Food Nutr Sci 2, 901-7   
2. Wong S, et al (2012) How do spinal cord injury centres manage malnutrition? A cross-sectional survey of 12 SCIC in the UK and Ireland. Spinal Cord 50, 132-5.   
3. Wong S, et al (2012) The prevalence of malnutrition in spinal cord injured patients - a UK multicentre study. Br J Nutr 108, 918-923.   
4. Wong S, et al (2012) Validation of the Spinal Nutrition Screening Tool (SNST) in patients with spinal cord injuries (SCI)-result form a multicentre study. Eur J Clin Nutr 66, 382-7.   
5. Wong S, et al (2012) Profile and prevalence of malnutrition in children with spinal cord injuries - assessment of the Screening Tool for Assessment in Paediatrics (STAMP). Spinal Cord 50, 67-71.   
6. Wong S, et al (2012) An audit to assess awareness and knowledge of nutrition in a UK spinal cord injuries centre. Spinal Cord 50, 446-451.   
7. Wong S, et al (2012) Meal provision in a UK National Spinal Injury Centre – a qualitative audit of service users and stakeholders. Spinal Cord 50, 772-777.   
8. Wong S, et al (2013) Validation of the Screening Tool for the Assessment of Malnutrition in Paediatrics (STAMP) in patients with spinal cord injuries (SCI), Spinal Cord 51, 424-429.   
9. Wong S, et al (2013) Nutritional supplement use in patients admitted to spinal cord injury centre, J Spinal Cord Med 36, 645-651.   
10.Wong S, et al (2013) Morbid obesity after spinal cord injury: an ailment not to be treated?   
Eur J Clin Nutr 67, 998-999   
11. Wong S, et al (2014) A Lactobacillus casei Shirota probiotic drink reduces antibiotic-associated   
diarrhoea in patients with spinal cord injuries: a randomised controlled trial. Br J Nutr 111, 672-678.   
12. Wong S, et al (2014) IS nutritional risk associate with adverse clinical outcomes in spinal cord injured   
patients admitted to a spinal centre? Eur J Clin Nutr 68, 125-130.   
13. Wong S (2014) Malnutrition after spinal cord injury. Network Health Dietitian 90, 27-29.   
14. Wong S, et al (2015) Knowledge, attitudes and practices of medical staff towards obesity management in patients with spinal   
cord injuries: an international survey. Spinal Cord 53, 24-31.   
15. Wong S, et al (2015) Review of dietetic service provision and activity in spinal cord injury centres: a multicentre survey in the UK   
and Republic of Ireland. Spinal Cord 53, doi: 10.1038/sc.2015.83   
16. Wong S et al (2015) Survey on the use of probiotics in preventing antibiotic associated diarrhoea and Clostridium difficile   
associated diarrhoea in spinal cord injuries centres. Int J Probiotcs and Prebiotics 10, 85-90.   
17. Hughes L, Wong S (2015) Nutritional Support and Spinal Cord Injuries. Complete Nutrition 15: 11-14.   
18. Wong S, et al (2015) Effectiveness of probiotic in preventing antibiotic associated diarrhoea and / or Clostridium difficile   
associated diarrhoea in patients with spinal cord injury: a study protocol for a systematic review of randomised controlled   
trials. Syst Review 4, 170.   
19. Wong S, et al (2017) Use of antibiotic and prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: a   
UK national spinal injury centre experience. Spinal Cord 2017 Jan 31: doi: 10.1038/sc.2016.193 [Epub ahead of print]   
20. Wong S, et al (2017) Effectiveness of probiotic in preventing antibiotic associated diarrhoea (AAD) and Clostridium difficile   
associated diarrhoea (CDAD) in patients with spinal cord injury: A systematic review. Int J Probiotics and Prebiotics 12, 115-122.   
21. Wong S, Santullo P, Hirani SP et al (2017) Use of antibiotics and the prevalence of antibiotic-associated diarrhoea in patients with spinal cord injuries: an international, multi-centre study. J Hosp Infect 97, 146-152.

***Paul Subong, RN***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Alka Pandey, RD***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Mria Toumpi, MSc., RD***  
The Health Lab

*(no CV uploaded)*

***Mofid Saif, MD., FRCP., FRCS***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

***Allison Graham, MD., FRCP***  
National Spinal Injuries Centre, Stoke Mandeville Hospital

*(no CV uploaded)*

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**Cardiac consequences of spinal cord injury: a meta-analysis**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Alexandra Williams, PhD***  
University of British Columbia

**CV:**  
Biographical Sketch   
  
Name: Alexandra M Williams, PhD   
Title: Postdoctoral Research Fellow, ICORD (International Collaboration on Repair Discoveries), University of British Columbia   
  
A. Personal Statement   
My key research interests are focused on cardiac function related to autonomic control and the heart's structural geometry. During my doctoral studies I developed an advanced skillset for the echocardiographic assessment of cardiac structure and function, and my research at that time established novel information regarding the mechanical function of the heart in healthy humans. This work also provided insight to the key mechanisms that appear to regulate cardiac function during responses to acute physiological stress. The understanding of normal healthy function is fundamental to further understanding the physiological mechanisms contributing to dysfunction, notably in the clinical setting such as in heart disease. Importantly, heart disease has emerged as the leading cause of morbidity and mortality in individuals with spinal cord injury, yet there are limited data examining cardiac function in this population. Thus, my key focus as a postdoctoral fellow at UBC and ICORD involves the examination of altered cardiac structure and function following spinal cord injury. Since beginning in this position in May 2017, I have been involved in over seven cardiac-related research studies, two of which as lead investigator. These include human clinical, animal pre-clinical and basic science (molecular) studies. Currently, we are interested in determining the alterations to load-dependent and -independent cardiac function following sympathetic decentralization that occurs in spinal cord injury, both in the acute and chronic settings .   
  
B. Positions   
2017 - Postdoctoral Research Fellow, University of British Columbia, Canada   
2016 - Lead Cardiac Sonographer, UBC International Everest Research Expedition   
2012-2016 - Graduate Teaching Assistant, UBC Okanagan, Canada   
2010-2012 - Health Systems Consultant, Balance of Care Research Group, University of Toronto, Canada   
2009-2011 - Graduate Teaching Assistant, University of Western Ontario, Canada   
2009-2011 - Research Assistant, Centre for Brain and mind, University of Western Ontario   
2007-2010 - Research Assistant, Canadian Research Network for Care in the Community   
Health Policy, Management and Evaluation, University of Toronto   
  
C. Research Funding   
2017-2019 – Michael Smith Foundation for Health Research / Rick Hansen Foundation / International Collaboration on Repair Discoveries Trainee Award (Provincial); 35,000 CAD per annum   
2016 – The Physiological Society (UK) Travel Grant (International); 500 pound sterling   
2016 – UBC Graduate Dean's Thesis Award (Institutional); 5,000 CAD   
2015 – The Physiological Society (UK) Travel Grant (International); 500 pound sterling   
2015 – Michael Smith Foreign Study Supplement (NSERC-MSFSS)(National); 6,000 CAD   
2014-2016 – Natural Sciences and Engineering Research Council of Canada (NSERC)   
Alexander Graham Bell Canada Graduate Scholarship (National); 70,000 CAD   
2014 – Heart & Stroke Doctoral Research Award (National, declined)   
2013-2015 – UBC University Graduate Fellowship (Institutional); 12,000 CAD   
2010-2011 – Ontario Graduate Scholarships in Science and Technology (Provincial); 10,000 CAD   
2009-2011 – Western Graduate Research Scholarship (Institutional); 20,000 CAD   
  
D. Honours   
2017 – First Place, Senior Poster Presentation, International Hypoxia Symposium   
2016 – Three Minute Thesis Finalist, University of British Columbia Okanagan Campus   
2011 – Graduate Student Teaching Award (Nomination), The University of Western Ontario   
2011 – Bioscience Oral Communication, First Place, The University of Western Ontario   
2005-2009 – Dean’s Honour List, The University of Western Ontario   
2005 – Western Scholarship of Distinction   
  
E. Contributions to Science (selected from a total of 9 peer-reviewed publications, 16 conference publications, 10 presentations, and 5 reports)   
  
1. The first to demonstrate that the heart’s mechanical function differs between males and females in responses to acute physiological stress. In a series of three studies, my doctoral research was the first to demonstrate sex differences in left ventricular mechanics, which appear to be underpinned by differences in the autonomic control of the heart, as well as ventricular geometry. These findings are highly novel and provide key insights into the fundamental mechanisms that control the heart’s function during challenges, and how those differ in males and females. The first two studies have been published in high-ranking physiology journals (Williams et al. (2016), AJP-Heart and Circ Phys, 311(1), H76-H84; Williams et al. (2017), J Physiol, DOI: 10.1113/JP273368). During the final year of my PhD, I was awarded the Michael Smith Foreign Study Supplement ($6000) to complete the third study of this research with Prof Rob Shave at Cardiff Metropolitan University. This research has been presented at the Physiological Society Meeting (UK, July 2015) and the Okanagan Cardiovascular and Respiratory Symposium in March 2014 and 2016.   
  
2. Lead cardiac sonographer for the UBC International Everest Research Expedition to the Ev-K2-CNR Research Pyramid (5050m) in Nepal (October-November 2016). I was the lead cardiac sonographer for the trip (involving collaborations amongst six leading international research institutions) and was also lead investigator on a study examining the key physiological factors regulating the heart’s mechanical function at high altitude. I recently presented data from this study at the International Hypoxia Meeting, and won the award for best poster presentation from senior (i.e. completed PhD) researchers ($250 USD). Aside from this study, I was involved in more than ten additional studies on the expedition. I was a co-author on six additional abstracts at the Hypoxia Meeting. The manuscripts for this study and others I have co-authored are to be prepared within the next three to six months, and submitted to high-ranking physiology journals.   
  
3. Research Associate and Health Systems Consultant (2007-2012) with the Canadian Research Network for Care in the Community (CRNCC; Balance of Care Research Group at The University of Toronto). I first became involved in nationally-funded research (SSHRC and CIHR) when I joined the CRNCC, based at the University of Toronto’s Faculty of Medicine. I began by writing ‘In Focus’ articles on key topics in health policy, including knowledge translation, supportive housing and diversity in home and community care. I contributed to a number of peer-reviewed articles (HealthcarePapers 2009, 10 (1): 8-21) and technical reports (Mapping the State of the Art: Integrating Care for Vulnerable Older Populations, 2009). I also took the lead alongside our CRNCC manager to coordinate a number of symposia, including Community Care and Health Human Resources: Informing Policy Action (March 18, 2008), Aging at Home: Connecting the Dots in Ontario and Beyond (June 22, 2009) and Healthy Connections 2011 - Informal Caregiving in the Formal System: From Ideas to Solutions (June 9, 2011). Finally, I prepared several multimedia knowledge translation pieces, which were presented at our symposia and distributed to health and community care groups.   
  
4. Cheyne, W. S., Williams, A. M., Harper, M. I., & Eves, N. D. (2016). Heart-lung interaction in a model of COPD: importance of lung volume and direct ventricular interaction. AJP-Heart and Circ Physi, 311(6), H1367-H1374. This project was completed during my doctoral studies. I contributed to the study design, and performed all echocardiographic imaging for the study. This project was highly innovative as we custom-constructed a number of respiratory obstructions and tilt tables to generate a human model of chronic obstructive pulmonary disease (COPD), to ultimately determine the cardiac consequences of inspiratory resistance, dynamic lung hyperinflation, increased pulmonary vascular resistance and increased preload, alone and in combination (all hallmarks of COPD). I contributed to the analysis and interpretation of echocardiographic data, and editing of the manuscript. This work has been presented at the international meeting for The American Thoracic Society, and is published in abstracts for the American Journal of Respiratory and Critical Care Medicine. A second manuscript has been submitted and reviewed at the Journal of Applied Physiology (JAPPL-01109-2016), and responses to the reviewers are currently being prepared.   
  
5. Williams, A. M., Paterson, D. H., & Kowalchuk, J. M. (2013). High-intensity interval training speeds the adjustment of pulmonary O2 uptake, but not muscle deoxygenation, during moderate-intensity exercise transitions initiated from low and elevated baseline metabolic rates. J Appl Physiol, 114(11), 1550-1562. This research from my MSc provided novel data regarding the influence of high-intensity training (HIT) on the muscle’s ability to utilize oxygen. This work was the first to demonstrate that HIT can produce rapid improvements in the speed of muscle oxygen uptake during distinct step-increases in exercise intensity, and provided evidence for microvascular remodelling in the trained muscle. I was primarily responsible for the study design, all data collection and exercise training, and preparation of the manuscript. This work has been presented at meetings for the Canadian Society of Exercise Physiology (Quebec City, October 2011) and the American College of Sports Medicine (San Francisco, May 2012). I was also invited to present these data at The University of Western Ontario Kinesiology Bioscience Seminar in October of 2011.

***Cameron Gee, MSc***  
University of British Columbia

*(no CV uploaded)*

***Christine Voss, PhD***  
University of British Columbia

*(no CV uploaded)*

***Christopher West, PhD***  
University of British Columbia

*(no CV uploaded)*

**161**

**OnabotulinumtoxinA for neurogenic detrusor overactivity not only reduces the frequency and severity of autonomic dysreflexia safely but significantly improves quality of life for individuals with spinal cord injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Stephanie Kran, BSc***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

**CV:**  
Position Title: Research Assistant, International Collaboration on Repair Discoveries (ICORD); medical student at the University of British Columbia in Vancouver, Canada.   
  
A. Personal Statement   
My research focuses on neurogenic detrusor overactivity and bladder-related autonomic dysreflexia in the spinal cord injured population. Specifically, I am interested in the efficacy of intradetrusor Botox injections on both the objective reduction of autonomic dysreflexia frequency and severity, and the subjective bladder-related quality of life impact of this treatment method.   
  
B. Positions and Honors   
  
Positions   
2006 Research Intern, British Columbia Cancer Agency, Deeley Research Centre, Victoria, BC, Canada   
  
2009 Laboratory Technician, Brain Research Centre, Division of Medical Sciences at the University of Victoria, BC Canada   
  
2010 Virology Technician, Canadian Food Inspection Agency Centre for Plant Health, Victoria, BC, Canada   
  
2011 Research Assistant, Natural Resources Canada Pacific Forestry Centre, Victoria, BC, Canada   
  
2013 Industry Liaison Assistant, UVic Industry Partnerships, University of Victoria, BC, Canada   
  
2016-present Medical Student, University of British Columbia Faculty of Medicine, Vancouver, BC, Canada   
  
2017-present Medical Chair, Exercise is Medicine Canada, University of British Columbia chapter, Vancouver, BC, Canada   
  
2017-present Research Assistant, International Collaboration on Repair Discoveries (ICORD), Faculty of Medicine, University of British Columbia, Canada   
  
Honours   
  
2006 Xavier Pelletier High School Internship Award, British Columbia Cancer Agency   
  
2015 University of Victoria Featured Student   
  
2017 Faculty of Medicine Summer Student Research Program and the Florence E. Heighway Summer Research Award Recipient

***Matthias Walter, MD, FEBU***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Mark Nigro, MD, FRCSC***  
Department of Urologic Sciences, Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Lynn Stothers, MD, FRCSC***  
Department of Urologic Sciences, Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Daniel Rapoport, MD, FRCSC***  
Department of Urologic Sciences, Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Alex Kavanagh, PEng, MPH, MD, FRCSC***  
Department of Urologic Sciences, Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

***Andrei Krassioukov, MD, PhD, FRCPC***  
International Collaboration on Repair Discoveries (Icord), Faculty of Medicine, University of British Columbia

*(no CV uploaded)*

**162**

**Intravesicular Lidocaine: Pharmacodynamics and Effects on Autonomic Dysreflexia Prevention**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Ryan Solinsky, MD***  
Spaulding Rehabilitation Hospital

**CV:**  
Biographical Sketch   
Name: Ryan Solinsky, MD   
Position Title: Physician, Spaulding Rehabilitation Hospital; Instructor Harvard Medical School; Spinal Cord Injury consultant, Beth Israel Deaconess Medical Center   
  
A. Personal Statement   
I am a physician-scientist focused on the functional rehabilitation of individuals with spinal cord injuries (SCI). I currently spend 50% of my time in clinical practice, seeing outpatients at Spaulding Rehabilitation Hospital and SCI consults at Beth Israel Deaconess Medical Center. The remainder of my time is split between research, administrative and teaching responsibilities. My research area of interest is in reading and manipulation of neural signals following SCI, in an effort to design neuroprosthetic interventions to minimize secondary complications of SCI.   
My research has been based both on clinical application of treatments for autonomic dysreflexia, a unique condition for patients with high level SCI, and understanding the underlying pathophysiology of autonomic dysregulation through small animal models. In the past, this later focus has culminated in a large multi-site study looking at the role of optogenetic modified viral vectors as a form of novel bladder stimulation for next-generation neuroprostheses. Currently, I am working on interventions to minimize the chronic effects of autonomic dysfunction after SCI. In parallel, I continue clinical research trials assessing the pharmacodynamics of intravesicular lidocaine and nitroglycerin ointment, both commonly used to mitigate autonomic dysfunction in patients with SCI.   
  
B. Positions and Honors   
Positions   
2017-present Active Staff, Spaulding Rehabilitation Hospital, Boston, MA   
2017-present Instructor, Harvard Medical School, Boston, MA   
2017-present Spinal Cord Injury Consultant, Beth Israel Deaconess Medical Center, Boston, MA   
  
Recent Honors   
2013 House Officer of the Week, Harborview Medical Center   
2013-2015 Regional Editor, Rehab in Review   
2014 Interdisciplinary Champion Award, Academy of Spinal Cord Injury Professionals   
2014-present Rehabilitation Medicine Scientist Training Program (RMSTP) Pre-applicant Scholar, Association of Academic Physiatrists   
2016 Visiting Spinal Fellow, Burwood Hospital, Christchurch, New Zealand   
2016 Ernest Bors Award for Scientific Development, Academy of Spinal Cord Injury Professionals   
2016 Outstanding Resident Award, University of Washington, Department of Rehabilitation Medicine   
2016 Outstanding Resident Research Award, University of Washington, Department of Rehabilitation Medicine   
2017 Golden Apple Teaching Award nominee, Rutgers New Jersey Medical School   
2017 Best Oral Presentation Award, International Autonomic Symposium   
2017 Post-doctoral Fellow Research Award, Kessler Institute for Rehabilitation   
  
Board Certifications   
2017 Physical Medicine and Rehabilitation   
  
C. Contributions to Science   
Recent Presentations   
2015 Introduction to the ASIA exam, University of Washington School of Medicine, Seattle, WA   
2015 Clinical Rehabilitation Medicine Pearls, University of Washington School of Medicine, Seattle, WA   
2015 Fucntional history and rehabilitation, University of Washington School of Medicine, Seattle, WA   
2015 Neuromuscular Electrical Stimulation in Spinal Cord Injury, University of Washington School of Medicine, Seattle, WA   
2016 International Spinal Cord Injury Medicine Care Paradigms, University of Washignotn, , Seattle, WA   
2016 A Retrospective Review of Safety Using a Nursing Driven Autonomic Dysreflexia Protocol for Patients with Spinal Cord Injuries / Bors Award Lecture (Top annual paper in Journal of Spinal Cord Medicine by a trainee), Academy of Spinal Cord Injury Professionals, Nashville, TN   
2016 The emerging evidence behind electrically modulated neural plasticity / Visiting Fellow Lecture, Burwood Hospital, Christchurch, New Zealand   
2016 International Spinal Cord Injury Medicine Care Paradigms, Burwood Hospital, Christchurch, New Zealand   
2016 Introduction to the ISNCSCI exam for beginners, Kessler Institute for Rehabilitation, West Orange, NJ   
2016 Spasticity Management, Kessler Institute for Rehabilitation, West Orange, NJ   
2017 Foundational research for a next-generation, optogenetics based bladder neuroprosthesis for individuals with spinal cord injury, 4th International Autonomic Symposium, Vancouver, BC, Canada   
2017 Wheelchair Skills, Kessler Institute for Rehabilitation, West Orange, NJ   
2017 Introduction to the ISNCSCI exam, University of Washington, Seattle, WA   
2017 Understanding the International Standards exam: historical insights for contemporary mastery, Academy of Spinal Cord Injury Professionals, Denver, CO   
2017 Autonomic Dysreflexia elaborated: New emerging details from statistical analysis, Academy of Spinal Cord Injury Professionals, Denver, CO   
  
Recent Publications   
1. Solinsky, R., Beaupre, G.S., Fredericson, M. Variable Criteria for Patellofemoral Bracing among Sports Medicine Professionals. PM&R, 2014: 6, p 498-505   
2. Solinsky, R., Svircev, J.N., James, J.J., Burns, S.P., Bunnell, A.E. A Retrospective Review of Safety Using a Nursing Driven Autonomic Dysreflexia Protocol for Patients with Spinal Cord Injuries. The Journal of Spinal Cord Medicine 2016. 39(6), p 713-9   
3. Solinsky, R., Bunnell, A.E. Rehabilitation of a Patient with Overlap of Acute Transverse Myelitis and Bickerstaff’s Brainstem Encephalitis: A Case Report. Spinal Cord Series and Cases 2016: 1, 15032   
4. Solinsky, R., Bunnell, A.E., Linsenmeyer, T.A., Svircev, J.N., Engle, A., Burns, S.P. Pharmacodynamics and effectiveness of topical nitroglycerin at lowering blood pressure during autonomic dysreflexia. Spinal Cord 2017. Advanced e-publication   
5. Solinsky, R., Kirshblum, S.C., Burns, S.P. Exploring detailed characteristics of autonomic dysreflexia. Journal of Spinal Cord Medicine 2017. Advanced e-publication   
6. Solinsky, R., Kirshblum, S.C. Challenging questions regarding the International Standards. Journal of Spinal Cord Medicine 2017. Advanced e-publication   
  
D. Research Support   
2015-2015 The Role of Bioelectric Signaling in Maintenance of CGRP Neurons Following Spinal Cord Injury. Walter C. and Anita C Stolov Foundation, Institutional Research Grant, PI, $1,700.00   
  
2015-2016 Bidirectional Interface for Organ Nerve Integrated Control (Phase 1), GlaxoSmithKline Innovation Challenge, Co-I, PI: Chet Moritz, PhD ($280,000.00)   
  
2016-2017 Bidirectional Interface for Organ Nerve Integrated Control (Phase 2), GlaxoSmithKline Innovation Challenge, Co-I, PI: Chet Moritz, PhD ($1,000,000.00)

**163**

**Targeting movement strategies to reduce impingement of the rotator cuff during overhead reaching in individuals with spinal cord injury**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Beth Cloud, PT, DPT, PhD***  
Mayo Clinic

**CV:**  
Positions and Honors   
  
Positions   
  
2016 - Present: Faculty - Program in Physical Therapy, Mayo Clinic School of Health Sciences, Mayo Clinic College of Medicine and Science, Rochester, Minnesota   
  
2017 - Present: Assistant Professor of Physical Therapy - Mayo Clinic College of Medicine and Science   
  
2015 - 2016: Postdoctoral Research Fellow - Department of Physical Medicine & Rehabilitation, Mayo Clinic, Rochester, Minnesota   
  
2015 - 2016: Adjunct Faculty - College of Saint Scholastica, Duluth, Minnesota   
  
2013 - 2017: Instructor of Physical Therapy - Mayo Clinic College of Medicine and Science   
  
2010 - 2015: Physical Therapist - Department of Physical Medicine & Rehabilitation, Mayo Clinic, Rochester, Minnesota   
  
Honors   
  
2016: Outstanding Trainee Researcher Award - Academy of Spinal Cord Injury Professionals   
  
2016: FASEB MARC Travel Award - FASEB   
  
2013 - 2014: Promotion of Doctoral Studies II Scholarship - Foundation for Physical Therapy   
  
2010 - 2015: Predoctoral Trainee on CTSA Grant Number TL1 TR000137 - CCaTS, PhD program, Rochester, Minnesota   
  
2010: Erik J. Aasen Award - Program in Physical Therapy, Mayo School of Health Sciences, Mayo Clinic College of Medicine, Rochester, Minnesota   
  
  
Licensure   
  
2010 - Present: Physical Therapy (state: Minnesota)   
  
  
Presentations (past 5 years)   
  
2017: Development of a propulsion-specific regression model to predict scapulothoracic motion (poster) - Annual Meeting of the American Society of Biomechanics, Boulder, Colorado   
  
2016: Seat dump angle affects spine and scapular motion during propulsion (oral) - Academy of Spinal Cord Injury Professionals Educational Conference and Expo, Nashville, Tennessee   
  
2016: Efficient and effective EBP search strategies: 2 Minutes to answer your clinical questions (Continuing education course ) - Annual Conference of the Minnesota Chapter of the American Physical Therapy Association, St Paul, Minnesota   
  
2016: Changes to manual wheelchair seat dump angle are associated with changes in thoracolumbar lordosis and scapular kinematics during propulsion in individuals with spinal cord injury (poster) - Young Investigators Research Symposium, Rochester, Minnesota   
  
2015: Spinal posture and balance in individuals with spinal cord injury in response to wheelchair seat changes (oral) - The 25th Congress of the International Society of Biomechanics, Glasgow, Scotland, United Kingdom   
  
2015: Spinal curvature and shoulder kinematics during wheelchair propulsion: Evaluating the impact of spinal cord injury level (oral) - Mayo Orthopedic Research Alumni Association International Symposium in Recognition of Kai-Nan An, Ph.D., Rochester, Minnesota   
  
2015: Spinal curvature and shoulder kinematics during wheelchair propulsion: Evaluating the impact of spinal cord injury level (poster) - Annual Meeting of the American Society of Biomechanics, Columbus, Ohio   
  
2015: Effect of using a skeleton model to facilitate anatomical landmark identification for shoulder kinematics by first-year DPT students (poster) - American Physical Therapy Association Combined Sections Meeting, Indianapolis, Indiana   
  
2014: Accuracy of quantifying seated spinal curvature using fiber optic technology versus optoelectronic markers (poster) - World Congress of Biomechanics, Boston, Massachusetts   
  
2014: Quantifying seated spinal posture: Accuracy and values obtained with a fiber optic system (poster) - Translational Science 2014 Meeting, Washington, District of Columbia   
  
2013: Quantification of spinal posture in manual wheelchair users (poster) - National Predoctoral Clinical Research Training Program Meeting, Rochester, Minnesota   
  
2012: Seated postures in wheelchair users: An exploratory analysis of subacromial space and shoulder joint orientation measures (poster) - National Predoctoral Clinical Research Training Program Meeting, Rochester, Minnesota   
  
  
Publications (past 5 years)   
  
Cloud BA, Zhao KD, Ellingson AM, Nassr A, Windebank AJ, An KN. Increased Seat Dump Angle in a Manual Wheelchair Is Associated With Changes in Thoracolumbar Lordosis and Scapular Kinematics During Propulsion. Arch Phys Med Rehabil. 2017 Oct; 98 (10):2021-2027.e2 Epub 2017 Mar 18 PMID: 28322758 PMCID: 5603358 DOI: 10.1016/j.apmr.2017.02.014   
  
Luetmer MT, Cloud BA, Youdas JW, Pawlina W, Lachman N. Simulating the multi-disciplinary care team approach: Enhancing student understanding of anatomy through an ultrasound-anchored interprofessional session. Anat Sci Educ. 2017 Sep 15 Epub 2017 Sept 15 PMID: 28914990 DOI: 10.1002/ase.1731   
  
Van Straaten MG, Cloud BA, Zhao KD, Fortune E, Morrow MMB. Maintaining Shoulder Health After Spinal Cord Injury: A Guide to Understanding Treatments for Shoulder Pain. Arch Phys Med Rehabil. 2017 May; 98: (5)1061-1063. PMID: 28185640 DOI: 10.1016/j.apmr.2016.10.005   
  
Eby SF, Cloud BA, Brandenburg JE, Giambini H, Song P, Chen S, LeBrasseur NK, An KN. Shear wave elastography of passive skeletal muscle stiffness: influences of sex and age throughout adulthood. Clin Biomech (Bristol, Avon). 2015 Jan; 30: (1)22-7. PMID: 25483294 PMCID: 4298479 DOI: 10.1016/j.clinbiomech.2014.11.011   
  
Zhao KD, Van Straaten MG, Cloud BA, Morrow MM, An KN, Ludewig PM. Scapulothoracic and Glenohumeral Kinematics During Daily Tasks in Users of Manual Wheelchairs. Front Bioeng Biotechnol. 2015; 3:183. PMID: 26636073 PMCID: 4653754 DOI: 10.3389/fbioe.2015.00183   
  
Van Straaten MG, Cloud BA, Morrow MM, Ludewig PM, Zhao KD. Effectiveness of home exercise on pain, function, and strength of manual wheelchair users with spinal cord injury: a high-dose shoulder program with telerehabilitation. Arch Phys Med Rehabil. 2014 Oct; 95(10):1810-1817.e2. Epub 2014 Jun 2 PMID: 24887534 PMCID: 4182115 DOI: 10.1016/j.apmr.2014.05.004   
  
Cloud BA, Zhao KD, Breighner R, Giambini H, An KN. Agreement between fiber optic and optoelectronic systems for quantifying sagittal plane spinal curvature in sitting. Gait Posture. 2014 Jul; 40: (3)369-74. PMID: 24909579 PMCID: 4099294 DOI: 10.1016/j.gaitpost.2014.05.007   
  
Cloud BA, Ball BG, Chen BK, Knight AM, Hakim JS, Ortiz AM, Windebank AJ. Hemisection spinal cord injury in rat: the value of intraoperative somatosensory evoked potential monitoring. J Neurosci Methods. 2012 Nov 15; 211: (2)179-84. PMID: 22960163 PMCID: 3491113 DOI: 10.1016/j.jneumeth.2012.08.024   
  
  
Research Support   
  
2015 - present: Development of a biofeedback intervention to reduce risk of upper extremity over-use injury following paraplegia and tetraplegia (Co-Principal Investigator) - Funded by: Rehabilitation Medicine Research Center (Mayo Clinic), on behalf of the Craig H. Neilsen Fund for Spinal Cord Injury Care and Research Honoring Robert D. Brown Jr., M.D.

***Stefan Madansingh, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Emma Fortune, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Melissa Morrow, PhD***  
Mayo Clinic

*(no CV uploaded)*

***Kristin Zhao, PhD***  
Mayo Clinic

*(no CV uploaded)*

**164**

**Assessing patterns of pressure injury development in patients with Spinal Cord Injury (SCI) with Lower Motor Neuron (LMN) and Upper Motor Neuron (UMN) lesions: A Case Report**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Marjorie Morgan, BS, PTA***  
Kennedy Krieger Institute

**CV:**  
Marjorie Morgan, PTA; Quyen Catania, PT, DPT, CWS; Rebecca Martin, OTD. Activity Based Restorative Therapy (ABRT) and the risk of developing Skin Tears in patients with Spinal Cord Injury: A Case Report. Poster presentation at the Symposium on Advanced Wound Care. April 2017.   
  
Quyen Catania, PT, DPT, CWS; Marjorie Morgan, PTA; Rebecca Martin, OTD. The Risk of Developing Skin Tears in Patients with Spinal Cord Injury Participating in Activity Based Restorative Therapy (ABRT). Oral presentation at American Spinal Injury Association Scientific Meeting. April 2017.   
  
Quyen Catania, PT, DPT; Marjorie Morgan, PTA. Wounds in Patients with Spinal Cord Injury: A Physical Therapist’s Role. Oral Presentation at Seminar in Developmental Medicine: Spinal Cord Injury Medicine Core Curriculum Lecture. March 2016.   
  
Quyen Catania, PT, DPT; Marjorie Morgan, PTA; Albert Recio, PT, MD. Assessment and Treatment of Sacral Wounds in Patients with Spinal Cord Injury: Pressure Ulceration versus Moisture-Associated Skin Damage. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. New Orleans, LA. September 2015.   
  
Shalini Selvarajah; Edward R. Hammond; Quyen Catania; Marjorie Morgan; Shannon M. Inches; Eric B. Schneider; Cristina L. Sadowsky. The Burden of Pressure Ulcers in Acute Traumatic Spinal Cord Injury. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. New Orleans, LA. September 2015.   
  
Marjorie Morgan, PTA; Quyen Catania, PT, DPT; Albert Recio, PT, MD. Skin Tears Are Prevalent In Population With Spinal Cord Injury: A Case Report. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. Las Vegas, NV. September 2014.

***Quyen Catania, PT, DPT, CWS***  
Kennedy Krieger Institute

**CV:**  
Quyen Catania, PT, DPT, CWS; Marjorie Morgan, PTA; Rebecca Martin, OTD. The Risk of Developing Skin Tears in Patients with Spinal Cord Injury Participating in Activity Based Restorative Therapy (ABRT). Oral presentation at American Spinal Injury Association Scientific Meeting. April 2017.   
  
Marjorie Morgan, PTA; Quyen Catania, PT, DPT, CWS; Rebecca Martin, OTD. Activity Based Restorative Therapy (ABRT) and the risk of developing Skin Tears in patients with Spinal Cord Injury: A Case Report. Poster presentation at the Symposium on Advanced Wound Care. April 2017.   
  
  
Briana Gregory, PT, DPT; Quyen Catania, PT, DPT; Rebecca Martin OTR/L, OTD. Activity Based Restorative Therapy Interventions in a Patient with Spinal Cord Injury Secondary to Infection: A Case Report. Presented at Contemporary Trends in SCI Management. June 2016.   
  
Quyen Catania, PT, DPT; Marjorie Morgan, PTA. Wounds in Patients with Spinal Cord Injury: A Physical Therapist’s Role. Oral Presentation at Seminar in Developmental Medicine: Spinal Cord Injury Medicine Core Curriculum Lecture. March 2016.   
  
Quyen Catania, PT, DPT; Marjorie Morgan, PTA; Albert Recio, PT, MD. Assessment and Treatment of Sacral Wounds in Patients with Spinal Cord Injury: Pressure Ulceration versus Moisture-Associated Skin Damage. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. New Orleans, LA. September 2015.   
  
Shalini Selvarajah; Edward R. Hammond; Quyen Catania; Marjorie Morgan; Shannon M. Inches; Eric B. Schneider; Cristina L. Sadowsky. The Burden of Pressure Ulcers in Acute Traumatic Spinal Cord Injury. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. New Orleans, LA. September 2015.   
  
Marjorie Morgan, PTA; Quyen Catania, PT, DPT; Albert Recio, PT, MD. Skin Tears Are Prevalent In Population With Spinal Cord Injury: A Case Report. Poster presentation at Clinical Symposium on Advances in Skin and Wound Care. Las Vegas, NV. September 2014.

***Rebecca Martin, OTR/L, OTD, CPAM***  
Kennedy Krieger Institute; The Johns Hopkins University School of Medicine

*(no CV uploaded)*

***Janet Dean, MS, RN, CRRN, CRNP***  
Kennedy Krieger Institute; Johns Hopkins Department of Rehabilitation

*(no CV uploaded)*

**165**

**Long Term Experience with Diaphragm Pacing for Traumatic Spinal Cord Injury: Early Implantation Post Injury is More Beneficial**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Raymond Onders, MD***  
University Hospitals Cleveland Medical Center

**CV:**  
CURRICULUM VITAE   
2017   
  
Raymond P. Onders, M.D., F.A.C.S.   
Margaret and Walter Remen Chair of Surgical Innovation   
Chief of General and Gastrointestinal Surgery   
Director of Minimally Invasive Surgery   
University Hospitals Cleveland Medical Center   
Professor of Surgery   
Case Western Reserve University School of Medicine   
11100 Euclid Avenue   
Cleveland, Ohio 44106-5047   
216-844-5797   
FAX: 216-983-3069   
  
PERSONAL:   
  
Home Address: 2900 Courtland Blvd.   
Shaker Heights, Ohio 44122   
  
Cell 216-308-9136   
E-mail raymond.onders@uhhospitals.org   
  
  
EDUCATION:   
  
General Surgery Residency:   
Case Western Reserve University Surgical Residency Program 1988-1993   
2074 Abington Road   
Cleveland, Ohio 44106-5000   
Residency Review Committee 1990-1993   
  
Medical School:   
Northeastern Ohio Universities College of Medicine 1984-1988   
Rootstown, Ohio 44272   
M.D. awarded 5/28/88   
Alpha Omega Alpha   
Biochemistry Teaching Fellow   
Air Force Health Professions Scholarship   
  
Undergraduate Education:   
Kent State University 1982-1984   
Kent, Ohio 44242   
Bachelor of Science   
Salutatorian   
Summa Cum Laude   
Varsity Track and Field   
  
ACADEMIC APPOINTMENTS:   
  
Case Western Reserve University   
Assistant Professor of Surgery 1997-2004   
Associate Professor of Surgery June 2004-2010   
Professor of Surgery July 2010-   
Interim Chair Department of Surgery 2015-2017   
  
Uniformed Services University of the Health Sciences   
F. Edward Hebert School of Medicine   
Clinical Assistant Professor of Surgery 1997   
  
Wright State University School of Medicine   
Clinical Assistant Professor of Surgery 1997   
  
University of North Dakota School of Medicine   
Clinical Assistant Professor of Surgery 1994-1996   
Clinical Instructor of Surgery 1993-1994   
Residency Review Committee Member 1994-1996   
  
  
MILITARY SERVICE:   
  
United States Air Force 1984-1997   
Promoted to Major in 1994   
Military Assignments while on Active Duty   
Wright-Patterson Air Force Base, Ohio, 1996-1997   
Grand Forks Air Force Base, North Dakota, 1993-1996   
Military Highlights   
Air Force Commendation Medal- Awarded 5/15/97   
Meritorious Service Medal- Awarded 7/11/96   
Combat Medical Readiness Training- 9/96   
Chemical Warfare- 12/95   
Burn fellow at MetroHealth Burn Center from 8/95 to 9/95   
Officership Course- 7/95 to 9/95   
Trauma fellow at MetroHealth Medical Center from 8/94 to 9/94   
Military Indoctrination for Medical Officers- 7/93   
School of AeroSpace Medicine- 8/85   
Health Professional Officer Indoctrination Course- 7/85   
Commissioned as Second Lieutenant 3/8/84   
  
LICENSURE AND CERTIFICATES:   
  
American Board of Surgery # 39016 - awarded 2/15/94   
Passed recertification 2001   
Passed recertification 2012   
Ohio License 35-05-9392 since 1/16/90   
DEA # BO3962253   
Certified American College of Surgeons Ultrasound Instructor   
Advanced Trauma Life Support   
Advanced Cardiac Life Support   
  
PROFESSIONAL SOCIETIES:   
  
Fellow of the American College of Surgeons 1992-   
Certified National Ultrasound Faculty Member   
Society of Surgical Chairs 2015-1016   
Central Surgical Association 2002-   
American Spinal Injury Association- 2006-   
American Board of Surgery   
Associate Examiner in the Certifying Examination in Cleveland, 1999   
Associate Examiner in the Certifying Examination in Cincinnati, 2004   
Alternate Examiner in Certifying Examination in Cleveland, 2006   
  
Society of American Gastrointestinal Endoscopic Surgeons (SAGES) 1995-   
Board Member 2010-2012   
Business Development Advisory 2009   
Membership Committee 2010-   
Technology and Value Assessment Committee 2010-   
Chair Resident Education Committee 2005-2009   
Coordinator for the SAGES Educator’s Lunch 2006   
Co-Chair Resident Education Committee 2002-2005   
Resident Education Committee Member 1998-2010   
Legislative Committee 2002-2010   
Fundamentals of Endoscopic Surgery 2005-2007   
Public Information 2006-2007   
Technology Assessment and Ergonomics Committee Member 1998-2002   
Flexible Endoscopy Committee Member 2002-2004   
Flexible Endoscopy Study Group 1999-2002   
Coordinator of SAGES 2001 Educator’s Program 2001   
Ohio Chapter of American College of Surgeons 1998-   
American Hernia Society 1999-   
Cleveland Surgical Society 1999-   
President 2005-2006   
President Elect 2004-2005   
Chairperson for Resident Research Forum 2002-2005   
Society for Surgery of the Alimentary Tract 1999-   
American Society for Gastrointestinal Endoscopy 1995- 2012   
Midwest Surgical Association 1996-   
President 2013-2014   
President Elect 2012-1013   
Secretary 2009-2012   
Board Member 2005-2009   
Editorial Committee 2004-2006   
Program Committee 2000-2005   
Chairman Program Committee 2004   
Judge’s Committee for Resident Competition 2001-2005   
Society of Laparoendoscopic Surgeons 1995-   
Society of Air Force Clinical Surgeons 1994-2000   
Alpha Omega Alpha Honor Medical Society 1987-   
North Dakota Chapter of the American College of Surgeons 1993-1996   
American Medical Association 1988-1994,1998-2002   
  
  
AWARDS:   
  
1997: Awarded First Place in Clinical Category of the 1997 AORN Journal Writers Contest   
  
June 2003: Runner up 2003 TIIME, Case Western Reserve University/Weatherhead Business School Business Launch Competition in the Bioscience Category for Synapse Biomedical Ltd.   
  
September 2003: Received Northern Ohio Live Award of Achievement in Science and Technology   
  
December 2003: Best in Show- 2003 Cleveland Growth Association/COSE Business Plan Challenge   
  
December 2003: First Place- 2003 Cleveland Growth Association/COSE Business Plan Challenge: Startup Category   
  
December 2003: Gold Electrode Award- Neurotech Reports   
  
June 7, 2004: Maurice Saltzman Award is presented on behalf of the Mount Sinai Health Care Foundation for “a piece of work of signal value or merit to the health interests of the Greater Cleveland community.”   
  
October 2005: Poster of Exceptional Merit from the American College of Surgeons during the 91st Annual Clinical Congress.   
  
2003, 2004, 2005, 2006, 2007, 2008, 2009 and 2010, 2011, 2012, 2013: Castle-Connolly Medical Top Doctor: The Best in American Medicine. This has been published in the 3rd to the 9th Edition   
  
December 2005: The ALS Association 2005 Vision Award   
  
April 2006: Northern Ohio Live Top Doctors   
  
June 2006: American Spinal Injury Association First Place as Best Paper Award at the 2006 Combined Scientific Meeting with ISCOA, Boston.   
  
March 2008: Named one of Northeastern Ohio’s “Top Doctors” in Cleveland Magazine’s.   
  
August 2008: Honored as Crain’s Cleveland Business 2008 Health Care Heroes for Advancement in Health- Individual   
  
2007-2008: Elected as one of Best Doctors in America   
  
August 2008: Honored with Crain’s Cleveland Business 2008 Health Care Heroes for Advancement in Health for Corporate Category for Founder of Synapse Biomedical   
  
September 2008: Honored with Endowed Chair with the Margaret and Walter Remen Chair in Surgical Innovation   
  
November 2008: Diaphragm Pacing was named the third most important Medical Innovation at the 6th Medical Innovation Summit at the Cleveland Clinic Foundation   
  
2009, 2010 Recognized by Consumers Research Council of America As one of America’s Top Surgeon in the 2009 Edition and in the 2010 Edition   
  
2010 Recognized Cleveland Magazine as one of the Best Doctors   
  
2010 Distinguished Alumni Award from Northeastern Ohio Universities College of Medicine   
  
2013 Best Doctors in America recognition again.   
  
2013 ALS Bob Feller Legacy Award presented at the 2013 Strike Out ALS at Progressive Field, Cleveland Ohio, June 8th, 2013   
  
2013 Cornerstone of Recovery Award presented by the Jon Michael Moore Trauma Center during the Trauma Night of Recognition, West Virginia University, Morgantown West Virginia, October 10th, 2013.   
2013 The Rescuer of Humanity Award presented by Project Love- Values in Action Foundation for using leadership to positively change the course of humanity. This was given in conjunction with NFL star Steve Gleason for their work and commitment to helping people with ALS live productive inspired lives.   
  
  
JOURNAL REVIEWER:   
Surgical Laparoscopy, Endoscopy & Percutaneous Techniques   
Surgery   
Surgical Endoscopy   
Journal of the Society of Laparoendoscopic Surgeons   
Federal Practitioner   
Expert Review of Medical Devices   
  
UNIVERSITY SERVICE:   
  
Member of the Chair of Medicine Search Committee   
Member of Surgery Chair Search Committee- 2014-16   
Member of Master Clinicians Program 2005-2007   
Member of the School of Medicine “Second Look Weekend”   
April 2-3, 2005   
Member of Faculty Council- Representing Surgery, Term 1998-2001   
Preceptor for third year medical students 1997-2015   
Core lecturer for third year medical student in surgery 1997-2016   
Lectures on Gastroesophageal Reflux Disease, Adrenal Surgery, and endoscopy simulators.   
  
  
COMMERCIAL ENDEAVERS:   
  
Founding member Synapse Biomedical, Inc.- 2002   
Board Member 2005-   
Chief Medical Officer 2005-   
  
PATENTS:   
  
Patent Number US 7,206,641   
Mapping Probe System for Neuromuscular Electrical stimulation Apparatus   
  
Patent Number US 7,840,270   
Diaphragm Conditioning for ALS   
  
Patent Number US 7,962,215   
Acute Electrod for Ventilatory Assist System and Method to Improve Respiratory Function   
  
Patent Number US 8,406,885   
Conditioning for Weaning   
  
Patent Number US 8,428,412   
Neuromodulation Effect Method   
  
Patent Number US 8,478,412   
Sleep Disordered Breathing   
  
EU 598644-001   
Probe Handel Design   
  
Pending Patents   
  
2008-0287820 Biomarker   
2008-0188867 Intramuscular electrode   
2008-0125828 Ventilatory Assist   
2007-0049793 Transgastric NOTES DPS   
13/850,235 Conditioning system   
13/868,848 Neuromodulation Effect System   
  
  
  
HOSPITAL SERVICE:   
  
University Hospitals of Cleveland 1997-present   
11100 Euclid Avenue   
Cleveland, Ohio 44106-5047   
Interim Chair Department of Surgery 2015-2016   
UHMG Steering Committee 2015-   
Division Chief General and Gastrointestinal Surgery 2014-   
Surgical Safety Conference Committee 2016   
UHCMC OR Governance Committee 2012-2016   
Director of Minimally Invasive Surgery 1997   
Credentialing Committee for QualChoice of University Hospitals Health System 2005-2007   
Perioperative Medicine Service Line Committee 2003-2005   
Clinical Operations Council Committee 2005-2007   
UHHS Diamond Advisory Group 2005- 2007   
Operative Services Value Analysis Committee Member 1998-2004   
To review all new operative equipment for cost analysis   
Referring Physician-UHHS Provider Partnership Committee 2004   
To develop inpatient care physician communication standards   
Outline barriers that can be overcome   
UHC Navigant Operations Steering committee 2003   
Focusing on the efficiency and productivity of the operations   
Blueprint for Change-Operative Services Analysis-2003   
Core Group Member for the Mather Pavilion Surgery Center 1998-99   
Involved in the design and development of Minimally Invasive Surgery Suites   
Member of Rapid Design Team to Decrease Hospital Expenses 1998-99 Abdominal Surgery Tumor Board Member 1997-2008   
Thoracic Tumor Board Member 1998-2001   
Quality Assurance Committee Member for Hospital 1997-1998   
  
Wright-Patterson Medical Center/74th Medical Group 1996-97   
Wright-Patterson Air Force Base, Ohio 45433   
Chief of Minimally Invasive General Surgery   
Director of General Surgery Quality Assurance   
  
319th Medical Group 1993-96   
Grand Forks AFB, ND 58205   
Chairman of Medical and Surgical Services Quality Assurance 1996   
Executive Committee of the Medical Staff 1995-1996   
Chief of Surgical Services and Quality Assurance 1995   
Chief of Surgical Clinic 1994-1996   
Cancer Committee Chairman 1994-1996   
Trauma Surgeon for 319th Air Transportable Hospital 1993-1996   
Disaster Team Chief 319th Medical Group 1995-1996   
Director of Anesthesia Services 1994-1996   
Pharmacy Committee Member 1993-1994   
  
Veteran Administration Medical Center 1993-1996   
Fargo, ND   
  
GRANTS:   
  
1. 1995 “Helicobactor Pylori Detection Methods”, Remel Corporation, $500.00 Primary Investigator   
  
2. 1999 “The effect of CO2 Pneumoperitoneum on Rats” Unrestricted grant $3,000.00, Stryker Corporation. Primary Investigator   
  
3. 1999 “Role of Endothelium in the Oliguria Induced by Prolonged CO2 Pneumoperitoneum” Society of American Gastrointestinal Endoscopic Surgeons 1999 Research Grant, Award Accepted at SAGES annual meeting March 27, 1999 $15,000.00. Primary Investigator   
  
4. 2000-2004 Elisabeth Severance Prentiss Foundation grant to improve patient care through minimally invasive surgery. January 3, 2000 for $1,100,000.00. Co-Recipient   
  
5. 2000-2002 United States Surgical Corporation Center of Excellence Grant for research in Minimally Invasive Surgery $500,000 Primary Investigator   
  
6. 2003-2007 The Elisabeth Severance Prentiss Foundation for the Further Research and Development of Diaphragm Pacing through Minimally Invasive Surgery $400,000 Primary Investigator   
  
7. 2004 Winters Family Foundation for the Development of a Diaphragmatic Pacing System in ALS $20,000 Primary Investigator   
  
8. 2004 Bailey Foundation for the Investigation of the Interactions between Cardiac Pacemakers and Diaphragmatic Pacing System $20,000 Primary Investigator   
  
9. 2005 Meyerson Family Foundation to study the Diaphragm Pacing System in ALS $100,000   
Primary Investigator   
  
10. 2006-2010 The Mangelluzi Family to Support the expansion of Diaphragm Pacing to Pediatric Populations $250,000   
Principal Investigator   
  
11. 2006 SBIR Grant Binder Free Diaphragm Pacing Stimulation and Airway Clearance Assistance $111,554   
Co-Investigator   
  
12. 2007-2008 ALS Pivotal trial Diaphragm Pacing Sponsored by Synapse Biomedical $150,000   
Principle Investigator   
  
13. 2008 Margaret and Walter Remen Support for Diaphragm Pacing   
$70,000   
  
14. 2008 Diaphragm Pacing Donations to support research activities   
$15,000   
  
15. 2008 Opening of the Center for Diaphragm Pacing Funded by University Hospitals   
$250,000   
16. 2009-2010 Principle Investigator for SILS versus Standard Cholecystectomy   
$100,000   
  
BIBLIOGRAPHY- Published Peer Reviewed Manuscripts:   
  
1. Clark JG, Onders RP, Knudson JD. Laparoscopic Distal Pancreatectomy Procedures in a Rural Hospital. AORN Journal 1997;65:334-43.   
  
2. Onders RP. Detection Methods of Helicobacter Pylori: Accuracy and Costs. American Surgeon 1997;63:665-668.   
  
3. Aiyer H, Stellato TA, Onders RP, Mortimer JJ. Laparoscopic implant instruments for the placement of intramuscular electrodes in the diaphragm. IEEE Transactions in Rehabilitation Engineering 1999;7:360-371.   
  
4. Bennett AA, Gilkeson RC, Haaga JR, Makkar VK, Onders RP. Complications of “dropped” gallstones after laparoscopic cholecystectomy: technical considerations and imaging findings. Abdominal Imaging 2000;25:190-193.   
  
5. Ambrose JA, Onders R, Stowe N, Simonson M, Robinson A, Wilhelm S, Schulak J. Pneumoperitoneum Upregulates Renal Preproendothelin-1 Messenger RNA. Surgical Endoscopy 2001;15:183-188.   
  
6. Onders RP, Shuck JM. Repairing Adult Inguinal Hernias: Let Me Count the Ways. Curr Surg 2000 Surg;57:394-398   
  
7. Dimarco AF, Onders RP, Kowalski KE, Miller ME, Ferek S, Mortimer JT. Phrenic Nerve Pacing in a Tetraplegic Patient via Intramuscular Diaphragm Electrodes. American Journal of Respiratory and Critical Care Medicine 2002:166:1604-1606.   
  
8. Onders RP. The Utility of Flexible Endoscopy During Advanced Laparoscopy. Seminars in Laparoscopic Surgery 2003:10;43-48.   
  
9. Onders RP, DiMarco AF, Ignagni AR, Mortimer JT. Laparoscopic Placement of Diaphragm Pacing Systems in Human Subjects. Laparoscopy and SLS report 2003:2;22-23.   
  
10. Onders RP, Mittendorf E. Late Outcomes of Diagnostic Laparoscopy for Chronic Abdominal Pain. Surgery 2003:134;549-552.   
  
11. Onders RP, Aiyar H, Mortimer JT. Characterization of the Human Diaphragm Muscle with respect to the Phrenic Nerve Motor Points for Diaphragmatic Pacing. American Surgeon 2004:70;241-247.   
  
12. Onders RP, Ignagni AI, Aiyer H, Mortimer JT. Mapping the Phrenic nerve Motor Point: the Key to a Successful Laparoscopic Diaphragm Pacing System in the first human series. Surgery 2004:136;819-826.   
  
13. Onders RP, Hallowel PT. The era of ultrasonography during laparoscopic cholecystectomy. The American Journal of Surgery 2005:189;348-351.   
  
14. Onders RP, Ignagni AI, DeMarco AF, Mortimer JT. The learning Curve of investigational surgery: Lessons Learned from the first series of laparoscopic diaphragm pacing for chronic ventilator dependence. Surgical Endoscopy 2005:19; 633-7.   
  
15. DiMarco AF, Onders RP, Ignangi AI, Kowalski KE,Stephan S, Mortimer JT. Phrenic Nerve Pacing via intramuscular diaphragm electrodes in tetraplegic subjects. Chest 2005:127;671-677.   
  
16. Cosendai G, de Balthasar C, Ignagni A, Onders R, Bradley K, Purnell K, Mortimer J, Davis R, Zilberman Y, Schulman J. A Preliminary feasibility study of different implantable pulse generators technologies for diaphragm pacing system. Neuromodulation 2005:8;203-211.   
  
17. Onders RP, Shenk RR, Stellato TA. Long-term central venous catheters: size and location do matter. American Journal of Surgery 2006:191;396-9.   
  
18. Dimarco AF, Onders RP, Ignagni A, Kowolski KE. Inspiratory muscle pacing in spinal cord injury: case report and clinical commentary. J Spinal Cord Med 2006:29(2): 95-108.   
  
19. McGee MF, Rosen MJ, Marks J, Onders RP, Chak A, Faulx A, Chen VK, Ponsky J. A Primer on Natural Orifice Translumenal Endoscopic Surgery: Building a New Paradigm. Surgical Innovation 2006: 13: 86-93.   
  
20. Wilhelm SM, Prinz RA, Barbu AM, Onders RP, Solorzano CC. Analysis of large versus small pheochromocytomas: operative approaches and patient outcomes. Surgery. 2006 Oct;140(4):553-9.   
  
21. Onders R, McGee M, Marks J, Chak A, Schilz R, Rosen M, Ignagni A, Faulx A, Elmo MJ, Schmoisch S, Ponsky J. Diaphragm pacing with natural orifice tranluminal endoscopic surgery (NOTES): Potential for difficult to wean intensive care unit(ICU) patients. Surgical Endoscopy 2007:21;475-79.   
  
22. Onders R, McGee, Marks J, Chak A, Rosen M, Ignagni A, Faulx A, Elmo MJ, Schmoisch S, Ponsky J. Natural Orifice Transluminal Endoscopic Surgery(NOTES): As a Diagnostic tool in the Intensive Care Unit (ICU). Surgical Endosc 2007;21:681-83.   
  
23. McGee MF, Rosen MJ, Marks J, Chak A, Onders R, Faulx, Ignagni A, Schomish S, Ponsky J. A reliable method for monitoring intraabdominal pressure during natural orifice translumenal endoscopic surgery. Surg Endosc 2007;21:672-76.   
  
24. Onders RP, Elmo MJ, Ignagni AR. Diaphragm Pacing Stimulation System for Tetraplegia in Individuals Injured During Childhood or Adolescence. Journal of Spinal Cord Medicine 2007;30: 25-29.   
  
25. Bittner JG, Marks JM, Dunkin BJ, Richard WO, Onders RP, Mellinger JD. Resident training in flexible gastrointestinal endoscopy: a review of current issues and options. J Surg Educ 2007;64:399-409.   
  
26. McGee MF, Marks JM, Onders RP, Chak A, Jin J, Williams CP, Schomischh SJ, Ponsky JL. Complete Endoscopic Closure of Gastrostomy After Natural Orifice Translumenal Endoscopic Surgery Using the NDO Plicator. Surg Endosc 2008;22:214-20.   
  
27. McGee MF, Marks JM, Onders RP, Chak A, Rosen MJ, Williams SP, Jin J, Schomisch SJ, Ponsky JL. Infectious implications in the porcine model of naturual orifice transluminal endoscopic surgery (NOTES) with PEG-tube closure: a quantitative bacteriologic study. Gastrointest Endosc 2008;68: 310-318.   
  
28. Alshekhlee A, Onders RP, Syed TU, Elmo M, Katirji B. Phrenic nerve conduction studies in spinal cord injury: Applications for diaphragmatic pacing. Muscle Nerve 2008;36:1546-52.   
  
29. Katirji B, Onders R, Elmo MJ, Kernich C. Diaphragm pacing in Amyotrophic Lateral Sclerosis: Hope for a Devastating Disease. Neurological Institute Journal. 2008;1:9-15.   
  
30. Poulose BK, Gosen C, Marks JM, Khaitan L, Rosen MJ Onders RP, Trunzo JA, Ponsky JL. Inpatient Mortality Analysis of Paraesophageal hernia repair in Octogenarians. J Gastrointest Surg 2008;12: 1888-92.   
  
31. Onders RP, Calin AM, Elmo MJ, Sivashankaran S, Katirji B, Schilz R. Amyotrophic Lateral Sclerosis: The Midwestern Surgical experience with diaphragm pacing stimulation system shows that general anesthesia can be safely performed. American J Surgeon 2009;197:386-390.   
  
32. Onders RP, Elmo M, Khansarinia S, Bowman B, Yee J, Road J, Bass B, Dunkin B, Ingvarsson PE, Oddsdottir M. Complete Worldwide Experience in laparoscopic diaphragm pacing: results and differences in spinal cord injured patients and amyotrophic lateral sclerosis patients. Surg Endosc 2009 23(7)1433-40 Epub 2008 Dec 6   
  
33. Rosen MJ, Duperier T, Marks J, Onders R, Hardacre J, Ponsky J, Ermlich B, Laughninghouse M. Prospective randomized double-blind placebo-controlled trial of postoperative elastomeric pain pump devices used after laparoscopic ventral hernia repair. Surg Endosc 2009;23:2637-43.   
  
34. Trunzo JA, Poulose BK, McGee MF, Nikfarjam M, Schomisch SJ, Onders RP, Jin J, Chak A, Ponsky JL, Marks JM. The Diagnostic Efficacy of natural orifice transluminal endoscopic surgery: is there a role in the intensive care unit? Surgery Endoscopy 2010;24:2485-91.   
  
35. Onders RP, Khansarinia S, Weiser T, Chin C, Hungness E, Soper N, DeHoyos A, Cole T, Ducko C. Multi-Center Analysis of Diaphragm Pacing in Tetraplegic with Cardiac Pacemakers: Positive Implications for ventilator weaning in Intensive Care Units. Surgery 2010; 148: 893-7.   
  
36. Story D, Mariampillai E, Nikfarjam M, Howard M, Nunn A, Onders R. Anaesthetic Aspects of Implanting Diaphragmatic Pacing in Patients with spinal cord Injury. Anaesth Intensive Care 2010; 38: 740-3.   
  
37. Nikfarjam M, McGee MF, Trunzo JA, Onders RP, Pearl JP, Poulose BK, Chak A, Ponsky JL, Marks JM. Transgastric Natural Orifice Translumenal Endoscopic Surgery Peritonescopy in Humans: A Pilot Study in Efficacy and Gastrostomy Site Selection by using a hybrid technique Gastrointestinal Endosco 2010;72:279-83.   
  
38. Lepore AC, Tolmie C, O’Donnell J, Wright MC, Dejea C, Rauck B, Hoke A, Ignagni AR, Onders RP, Maragakis NJ. Peripheral Hyperstimulation Alter Disease Course and Site of Onset in SOD1 G93a Rats. Neurobiol Dis 2010;39:252-64.   
  
39. Onders RP, Ponsky TA, Elmo MJ, Lidsky K, Barksdale E. First Reported experience with intramuscular diaphragm pacing in replacing positive pressure mechanical ventilators in Children. J Pediatr Surg. 2011 Jan;46(1):72-6.   
  
40. Marks J, Tacchino R, Roberts K, Onders R, Denoto G, Paraskeve P, Rivas H, Soper N, Rosemurgy A, Shah H. Prospective Randomized controlled trial of laparoscopic cholecystectomy versus single incision laparoscopic cholecystectomy: report of preliminary data. Am J Surg 2011;201:369-72   
  
41. Gonzalez-Bermejo J, Morelot-Panzini C, Salachas, F, Redolfi S, Straus C, Becquemin M, Arnulf I, Pradat P, Bruneteau G, Ignagni A, Diop M, Onders R, Nelson T, Menegaux F, Meininger V, Similowski T. Diaphragm pacing improves sleep in patients with amyotrophic lateral sclerosis. Amyotrophic Lateral Sclerosis, 2012;13:44-54. Epub 2011 Oct 24   
  
42. Phillips MS, Marks JM, Roberts K, Tchhino R, Onders R, Denoto G, Rivas H, Islam A, Soper N, Gecelter G, Rubach E, Paraskeva P, Shah S. Intermediate Results of a prospective randomized controlled trial of traditional four-port laparoscopic cholecystectomy versus single-incision laparoscopic cholecystectomy. Surg Endosco 2012;26:1296-303 Nov 15 Epub ahead of print PMID: 22083331.   
  
43. Tedde ML, Onders RP, Teixeira MJ, Lage SG, Ballester G, Brotto MW, Okumura EMG Jatene FB. Electric Ventilation: Indications for and Technical Aspects of Diaphragm Pacing Stimulation Surgical Implantation. J Bras Pneumo, 2012;38:566-72. PMID: 23147048   
  
44. Elmo MJ, Kaplan C, Onders R. Diaphragm Pacing: Helping Patients Breathe. AANLCP Journal of Nurse Life Care Planning, 2012;12:600-611.   
  
45. Onders RP. Functional Electrical Stimulation: Restoration of Respiratory Function. Handbook Clinical Neurol. 2012;109:275-82. Doi: 10.1016/B978-0-444-52137-8.00017-6. PMID: 23098719   
  
46. Perry KA, Linn JG, Eakin JL, Onders RP, Velanovich V, Melvin WS. Transoral incisionless fundoplication does not significantly increase morbidity of subsequent laparoscopic nissen fundoplication. J Laparoendoscopic Adv Surg Tech 2013;23:456-458. PMID: 23578416   
  
47. Marks JM, Phillips MS, Tacchino R, Roberts K, Onders R, DeNoto G, S, Gecelter G, Rubach E, Rivas R, Islam A, Soper N, Paraskeva P, Rosemurgy A, Ross S, Shah S. Single-Incision Laparoscopic Cholecystectomy Is Associated with Improved Cosmesis Scoring at the Cost of Significantly Higher Hernia Rates: 1-Year Results of a Prospective Randomized, Multicenter, Single-Blinded Trial of Traditional Multiport Laparoscopic Cholecystectomy vs Single-Incision Laparoscopic Cholecystectomy. J Am Coll Surg 2013;16:1037-47 PMID: 23619321   
  
48. Onders R, Elmo M, Kaplan C, Katirji B, Schilz R. Final Analysis of the Pilot Trial of Diaphragm Pacing in Amyotrophic Lateral Sclerosis with Long Term Follow-up: Diaphragm Pacing Positively Affects Diaphragm Respiration. Am J Surgery 2014;207:393-397.   
  
49. Posluszny JA, Onders R, Kerwin AJ, Weinstein MS, Stein DM, Knight J, Lottenberg L, Cheatham ML, Khansarinia S, Dayal S, Byeno PM. Multicenter Review of Diaphragm Pacing in Spinal Cord Injury: Successful not only in weaning from ventilators but also in bridging to independent respiration. J Trauma Acute Care Surg 2014;76:303-310.   
  
50. Onders R, Elmo MJ, Kaplan C, Katirji B, Schilz R. Extended Use of Diaphragm Pacing in Patients with Unilateral of Bilateral Diaphragm Dysfunction: A New Therapeutic Option. Surgery 2014;156:772-86. PMID 25239317   
  
51. Onders R, Elmo MJ, Kaplan C, Katirji B, Schilz R. Identification of Unexpected Respiratory Abnormalities in Patients with Amyotrophic Lateral Sclerosis through Electromyographic Analysis Using Intramuscular Electrodes Implanted for Therapeutic Diaphragmatic Pacing. Am J Surg 2015;209(3):451-6. PMID: 25648901   
  
52. Onders R. The Diaphragm How it affect my life and my career. The search for stability when the problem is instability. Am J Surg 2015;209(3):431-5. doi: 10.1016/j.amjsurg.2014.12.003. Epub 2014 Dec 18. PMID: 25637310   
  
53. Smith BK, Fuller DD, Martin AD, Lottenberg L, Islam S, Lawson LA, Onders RP, Byrne B. Diaphragm Pacing as a Rehabilitative Tool for Patients with Pompe Disease who are ventilator-dependent: Case Series. Physical Therapy 2016; 96: 696-703. PMID: 26893511   
  
54. Ito H, Kamei T, Odake S, Nakano M, Okeda R, Kohriki S, Kawachi J, Onders R, Yoshii F. An Autopsy Case of Amyotrophic Lateral Sclerosis with Diaphragm Pacing. Internal Med 2016;55:3511-13. PMID 27904119   
  
  
BIBLIOGRAPHY- Book Chapters:   
  
1. Onders RP, Stellato TA. Therapeutic Choledochoscopy and Its Complications. IN: Scott-Conner CEH, editor. The SAGES Manual: Fundamentals of Laparoscopy and GI Endoscopy. New York: Springer-Verlog:1999;529-533   
  
2. Onders RP. Laparoscopic Inguinal Herniorrrhaphy. In: Cameron JL, editor. Current Surgical Therapy. 7th ed. Mosby, St. Louis, 2001;1389-94.   
  
3. Onders RP. Spleen: Traumatic Injury and Hematologic/Oncologic Disease. In: Pappas TN, editor. Unbound Surgery. Online publication 2002.   
  
4. Onders RP, Nakamoto D. The Spleen. In: Haaga JR, Lanzieri C(eds) Computed Tomography and MRI of the Whole Body, 4th Edition, Elsevier Science, Orlando, 2003, 1487-1510   
  
5. Onders RP, Stellato TA. Therapeutic Choledochoscopy and Its Complications. IN: Scott-Conner CEH, editor. The SAGES Manual Second Edition: Fundamentals of Laparoscopy and GI Endoscopy. New York: Springer-Verlog; 2006: 699-703.   
  
6. Onders RP. Ultrasound: The Basics for Laparoscopy. In: Talamini MA, editor. Advanced Therapy in Minimally Invasive Surgery. Hamilton, Ontario: BCDecker Inc. 2006, 53-59.   
  
7. Onders RP. Diaphragmatic Pacing for Unilateral Phrenic Nerve Paralysis. In Ferguson MK, Difficult Decisions In Thoracic Surgery: an Evidence-Based Approach. Springer Verlag, London, 2007, 365-371.   
  
8. Pearl J, Rosen M, Onders RP. Laparoscopic Inguinal Herniorrrhaphy. In: Cameron JL, editor. Current Surgical Therapy. 9th ed. Mosby Elsevier, Philadelphia, 2007, 1285-1288.   
  
9. Onders RP. Phrenic Nerve and Diaphragm Motor Pacing. In: Rice TW, editor. Pearson’s Thoracic and Esophageal Surgery, Third Edition. Philadelphia, PA: Churchill Livingstone Elsevier, 2007, 1145-1457.   
  
10. Onders RP. Diaphragm and Gastric Pacing. In Soper NJ, Swanstrom LL, Eubanks WS. Mastery of Endoscopic and Laparoscopic Surgery, Third Edition, Philadelphia PA: Lippincot Williams and Wilkins, 2009, 597-606.   
  
11. Linden, P. Onders R. Diaphragm. Scientific American Textbook. 2010   
  
12. Onders RP. Diaphragm Pacing for Acute Respiratory Failure. In Ferguson MK, Difficult Decisions in Thoracic Surgery 2nd Edition. Springer Verlag, London, 2011, 329-337.   
  
13. Onders RP. NOTES (Natural Orifice Transluminal Endoscopic Surgery) in the Intensive Care Unit. In Cameron JL, Cameron A editors. Current Surgical Therapy 10th Edition. Mosby Elselvier, Philedelphia 2011, 1321-1323.   
  
14. Onders RP. Gastric Dysmotility. In Murayama KM, Chand B editors. An Evidence-based approach to Minimally Invasive Surgery. Woodbury, CT: Cine-Med Publishing, Inc., 2012, 93-96.   
  
15. Onders RP. Functional Electrical Stimulation: Restoration of Respiratory Function. In Verhaagen J, McDonald J. Handbook of Clinical Neurology 3rd Series, Volume 109 Spinal Cord Trauma. Amsterdam: Elselvier, 2012, 275-282.   
  
16. Onders RP, Siegeal CT. Splenectomy. In Delaney CP, Netter’s Surgical Anatomy and Approaches. Philadelphia, PA: Elsevier, 2013, 197-203.   
  
17. Onders RP. Getting and Idea from Paper to Patient. In Stain, Prior, Shadduck. The SAGES Manual: Ethics of Surgical Innovation. Springer, 2015.   
  
18. Onders RP. Recovery of Diaphragm Function through Functional Electrical Stimulation: Diaphragm Pacing. In AI Elkwood et al.(eds.) Rehabilitative Surgery, 2017 DOI 10.1007/978-3-319-41406-5\_12   
  
19. Onders RP. Stimulation for Inspiration. In Peckham et al.(editors) Neuromodulation, Comprehensive textbook of Principles, Technologies and Therapies, Elsevier 2017

***MaryJo Elmo, ACNP***  
University Hospitals Cleveland Medical Center

*(no CV uploaded)*

**166**

**Pilot Test of a SCI Virtual Coach to Improve Skin Care**

Friday, May 04, 2018 09:15 AM - 10:15 AM

***Nancy Latham, PhD PT***  
Brigham and Women's Hosptial

**CV:**  
  
Nancy K. Latham   
  
Associate Epidemiologist, Brigham and Women's Hospital   
Lecturer, Harvard Medical School   
  
A. Personal Statement   
I am a physical therapist and clinical epidemiologist whose research has focused on developing and evaluating innovative interventions to improve health and function in persons with disabling conditions. I completed a PhD at the University of Auckland and a post-doctoral fellowship in Health Services Research at Boston University. I have been the principal investigator or co-investigator on randomized controlled trials including the HIP Rehab - Boston Hip Fracture trial (n=232) that found that a home-based exercise program was effective in improving function in older people post-hip fracture and the FITNESS trial of fall prevention in frail older adults (n=240). I have conducted systematic reviews and analyses of longitudinal cohort studies that explored the effectiveness of interventions to improve function in people with different conditions, and explored the complex social, environmental, psychological and physical factors that contribute to changes in function and disability. I am currently the PI a Craig H. Neilsen Foundation grant to develop and field test the first virtual coach for persons with spinal cord injury. Dr Bhasin and I collaborate on a number of studies, including the NIA/PCORI funded STRIDE multicenter pragmatic trial to decrease serious fall-related injuries in older adults. I am the Study Director on this trial which is taking place in 86 primary care practices around the U.S. I am excited to be part of the outstanding research team that has been assembled for this innovative trial that will advance research and clinical care for persons with SCI.   
  
B. Positions and Honors   
Positions and Employment   
1992 - 1993 Physical Therapist , Toronto East General Hospital, Toronto, Canada   
1995 - 1995 Lecturer, School of Physiotherapy, Otago Polytechnic, Dunedin, New Zealand   
1996 - 1996 Senior Physiotherapist, Health Services for the Elderly, Auckland Hosptial, NZ, Auckland   
1998 - 2001 Lecturer/Senior Lecturer, Lecturer/Senior Lecturer, School of Physiotherapy, Auckland University of Technology, Auckland, NZ   
1999 - 2002 Research Fellow, Clinical Trials Research Unit, University of Auckland, , University of Auckland, Auckland, NZ   
2003 - 2006 Research Scientist, Health and Disability Research Institute and Research Assistant Professor Sargent College of Health and Rehabilitation Sciences, Boston University, Boston, MA   
2007 - 2017 Research Scientist, Health and Disability Research Institute and Research Assistant Professor School of Public Health, Boston University, Boston, MA., Boston, MA   
2014 – 2017   
  
2014- Research Scientist – Associate Epidemiologist, Men's Health, Brigham and Women's Hospital, Boston, MA   
Lecturer, Harvard University   
  
Other Experience and Professional Memberships   
Honors   
1994 Bursary from the Fonds de la Recherche en Santé du Québec (FRSQ) , Reseau Provincial en Adaptation Readaptation   
2007 Mary E. Switzer Distinguished Fellowship , National Institute of Disability and Rehabilitation Medicine   
2007 Outstanding Health Policy and Administration Platform Presentation , American Physical Therapy Association Combined Sections Meeting   
2012 Fellow, Gerontology Society of America, Health Sciences Section   
C. Contribution to Science   
1. The aim of this randomized controlled trial was to determine if a simple home-based exercise program that older people with a recent hip fracture participate in after standard rehabilitation ended could improve function. After hip fracture, a large proportion of older people continue to have long-term limitations in their function and mobility. A few trials had found that intensive, supervised, clinic-based exercise programs could improve function after hip fracture. This trial was the first to find that a home-based program with minimal physical therapy contact (i.e. 3-4 sessions) could have a clinically meaningful impact on function.   
a. Latham NK, Harris B, Bean JF, Heeren T, Goodyear, C, Zawacki S, Heislein DM, Mustafa J, Pardasaney P, Giorgetti M, Holt N, Goehring L, Jette, AM. (2014) Effect of a home-based exercise program on functional recovery following rehabilitation after hip fracture: A randomized clinical trial. JAMA 311:700-8. PMCID: PMC4454368   
b. Chang FH, Latham NK, Ni P, Jette AM. (2015) Does self-efficacy mediate functional change in older adults participating in an exercise program after hip fracture? A randomized controlled trial. Arch Phys Med Rehabil. Jun;96(6):1014-1020. PMCID: PMC4600403   
2. The aim of this factorial randomized controlled trial was to determine if frail older people leaving hospital could improve their function and reduce falls through either vitamin D supplementation or home-based high-intensity training. Previous studies suggested improvements in function from high-intensity training when performed with supervision in gyms/clinics, but the effect in home settings was unknown. The study found no benefit from either intervention on falls or function, and that the exercise intervention significantly increased the risk of pain and other adverse events. This suggests that while high intensity strength training has benefits in some populations and settings, caution needs to be used when applying this approach to home-based therapy.   
a. Latham NK, Anderson CS, Lee A, Bennett DA, Moseley A, Cameron ID. A randomized, controlled trial of quadriceps resistance exercise and vitamin D in frail older people: the Frailty Interventions Trial in Elderly Subjects (FITNESS). J Am Geriatr Soc. 2003 Mar;51(3):291-9. PubMed PMID: 12588571.   
3. This Cochrane review (updated once) has explored the benefits of strength training in older adults. This review revealed that while older adults clearly have very large benefits from strength training on strength and other impairments, the impact on function is significant but very small. This suggests that for most older adults a program focused only on strength training will not have a meaningful effect on function, and other exercise and/or behavioral components should be considered.   
a. Latham N, Anderson C, Bennett D, Stretton C. Progressive resistance strength training for physical disability in older people. Cochrane Database Syst Rev. 2003;PubMed PMID: 12804434.   
b. Bennett DA, Latham NK, Stretton C, Anderson CS. Capture-recapture is a potentially useful method for assessing publication bias. J Clin Epidemiol. 2004 Apr;57(4):349-57. PubMed PMID: 15135835.   
c. Liu CJ, Latham N. Adverse events reported in progressive resistance strength training trials in older adults: 2 sides of a coin. Arch Phys Med Rehabil. 2010 Sep;91(9):1471-3. PubMed PMID: 20801270.   
d. Liu CJ, Latham N. Can progressive resistance strength training reduce physical disability in older adults? A meta-analysis study. Disabil Rehabil. 2011;33(2):87-97. PubMed PMID: 20476841.   
4. This study was the first time a virtual coach had been tested for acceptability and feasibility in people with neurological conditions. We found that people with Parkinson's Disease were very accepting and satisfied when they used a virtual exercise coach to increase their walking for one month, and that there was evidence that gait speed increased in people who used the coach.   
a. Ellis T, Latham NK, DeAngelis TR, Thomas CA, Saint-Hilaire M, Bickmore TW. Feasibility of a virtual exercise coach to promote walking in community-dwelling persons with Parkinson disease. Am J Phys Med Rehabil. 2013 Jun;92(6):472-81; quiz 482-5. PMCID: PMC4266140.   
5. This cluster randomized RCT explored the benefits of functionally based exercise training in older adults who live in long term care facilities. While the benefits of exercise for older adults are clear in community dwelling populations, the feasibility and effectiveness of programs for older people in long term care is not well established.   
a. Peri K, Kerse N, Robinson E, Parsons M, Parsons J, Latham N. Does functionally based activity make a difference to health status and mobility? A randomised controlled trial in residential care facilities (The Promoting Independent Living Study; PILS). Age Ageing. 2008 Jan;37(1):57-63. PubMed PMID: 17965045.   
b. Kerse N, Peri K, Robinson E, Wilkinson T, von Randow M, Kiata L, Parsons J, Latham N, Parsons M, Willingale J, Brown P, Arroll B. Does a functional activity programme improve function, quality of life, and falls for residents in long term care? Cluster randomised controlled trial. BMJ. 2008 Oct 9;337:a1445. 18845605 PubMed Central PMCID: PMC2565754.   
Full List of publications:   
http://www.ncbi.nlm.nih.gov/sites/myncbi/nancy.k..latham.1/bibliography/41959696/public/?sort=date&direction=descending   
  
D. Research Support   
Current Research Support   
  
01/05/2014-30/04/2019   
U01AG048270 National Institute on Aging/PCORI   
STRIDE Pragmatic Multi-center Randomized Trial to Prevent Serious Fall-related Injuries in Older Adults   
This project is a pragmatic cluster randomized RCT to explore the effectiveness of a multi-factorial intervention based in 86 primary care practices across the US to reduce serious fall-related injuries. A total of 5400 people aged 70 and older will be recruited and followed for 1.5-3 years.   
Role: Study Director and Co-Investigator   
  
09/30/2014-09/29/2017   
AHRQ   
CAHPS : Consumer Assessment of Healthcare Providers and Systems   
2U18HS016978-06   
This project is refining and evaluating additional items for the CAHPS survey of patient experiences that were developed specifically for people with mobility impairments.   
Role: Co-investigator   
  
  
04/01/2015-03/31/2017   
Craig H. Neilsen Foundation   
Project # 324644   
Spinal Cord Injury Virtual Coach to Promote Self-Care in pressure ulcer prevention   
The aim of this project is to develop a virtual coach to provide education, training and support to reduce the risk of pressure ulcers in people with Spinal Cord Injury (SCI) and to evaluate this intervention in a pilot RCT of n=40 people with SCI.   
Role: PI   
  
Completed Research Support   
  
NIH/NIA/ SRH subcontract (Bean) 01/01/2009 – 12/31/2013   
1R01AG032052-01A2   
Project RISE: Rehabilitation Impairment Study of the Elderly   
This prospective cohort study (N=420) explored which rehabilitative impairments predict the progression of disability over two years in mobility-impaired older adults.   
Role: Co-investigator   
  
  
1R24HD065688-02 09/01/2010 – 08/31/2015   
NIH/NICHD   
Improving Outcome Measurement for Medical Rehabilitation Clinical Trials   
The Boston rehabilitation outcome measurement center (Boston ROC), a collaboration among researchers from Boston University, Harvard Medical School/ Spaulding Rehabilitation Hospital, and Tufts University, provides medical rehabilitation researchers with access   
to resources, training and technical support to improve the selection and use of Patient/Clinician Reported Outcomes in rehabilitation clinical trials to assist with increasing the number and quality of successfully completed RCTs in the field of medical rehabilitation.   
Role: Co-Investigator   
  
  
10/14/2014-05/31/2016   
1P30AG048785 National Institute on Aging   
Boston Roybal Center for Active Lifestyle Pilot Project: Development and testing of a web-based training module for peer-coaches to promote exercise adherence in people with neurological conditions   
This pilot project developed and evaluated a web-based training program to provide peer exercise coaches for older adults with Parkinson Disease.   
Role: Co-PI

***Bethlyn Houlihan, MSW MPH***  
Spaulding New England Regional Sci Center (Snerscic), Mgh Institute of Health Professions

*(no CV uploaded)*

***Terry Ellis, PhD PT NCS***  
Boston University

*(no CV uploaded)*

***Ha Trinh, PhD***  
Northeastern University

*(no CV uploaded)*

***Ameneh Shamekhi, BS***  
Northeastern University

*(no CV uploaded)*

***Tamara DeAngelis, DPT GCS***  
Boston University

*(no CV uploaded)*

***Pengsheng Ni, MD MPH***  
Boston University

*(no CV uploaded)*

***Sarah Everhart Skeels, MPH***  
Spaulding New England Regional Sci Center, Mgh Institute of Health Professions

*(no CV uploaded)*

***Judi Zazulu, OTR***  
Boston University

*(no CV uploaded)*

***Nicole Sullivan, OT/S***  
Boston University

*(no CV uploaded)*

***Libby Gross, OT/S***  
Boston University

*(no CV uploaded)*

***Timothy Bickmore, PhD***  
Northeastern

*(no CV uploaded)*

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**Identifying and overcoming barriers to successful on-time completion of clinical trials in SCI: protocol design and recruitment perspectives**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Andy Blight, PhD***  
Acorda Therapeutics (Ret)

**CV:**  
Dr. Blight is co-chair of SCOPE, a member of the editorial board of the Journal of Neurotrauma and past treasurer and vice president of the National Neurotrauma Society.

***Linda Jones, PT, MSc***  
Craig Neilsen Foundation

**CV:**  
2012 – 2013 Clinical Research Consultant, Spinal Cord Injury, Boulder, Colorado   
2013 – Program Officer, Craig H. Neilsen Foundation, Encino, California   
2014 – PhD student, Clinical Sciences, Clinical Investigation track, University of Colorado, Denver, Colorado

***Jane Hsieh, MSc***  
Wings for Life

**CV:**  
SCOPE   
SCITT   
STUDI

**168**

**Considering Neurorehabilitation with Emerging Therapies: How does training effect recovery?**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Megan Gill, DPT***  
Mayo Clinic

**CV:**  
Curriculum Vitae and Bibliography   
Megan L. Gill, PT, DPT, NCS   
  
Personal Information   
Place of Birth: Rochester, MN   
Citizenship: United States   
Email Address: Gill.Megan@mayo.edu   
Present Academic Rank and Position   
Clinical Lead Physical Therapist for Spinal Cord Injury - Mayo Clinic , Rochester, Minnesota 2009 - Present   
Teacher assistant - Mayo Clinic College of Medicine, Rochester, Minnesota 2011 - Present   
Teacher assistant at Mayo College of Medicine Physical Therapy Program for Management of Neuromuscular Conditions (PT 6420)   
Education   
Minnesota State University, Mankato, Mankato, Minnesota - BS 1997 - 2001   
Mayo Clinic School of Health-Related Sciences, Mayo Clinic College of Medicine, Rochester, Minnesota - MPT 2002 - 2004   
College of St. Scholastica, Duluth, Minnesota - DPT 2009 - 2011   
Certifications   
Mayo Clinic Quality Academy   
Mayo Clinic Quality Fellow: Bronze Level Certification   
  
National Specialty Certification (APTA)   
  
Neurological Certification Specialist (NCS) 06/2013   
  
  
06/2014-present   
Licensure   
Minnesota 7505 (Physical Therapy)   
Honors/Awards   
Participant/Presenter Mankato Undergraduate Research Conference - Mankato State University, Mankato Undergraduate Research Conference, Mankato, Minnesota 2000   
Mayo Clinic Outstanding Student Clinician Award - Recipient of Mayo Clinic Outstanding Student Clinician Award, Rochester, Minnesota 2004   
Previous Professional Positions and Major Appointments   
Research Assistant - Mayo Clinic , Rochester, Minnesota 2002   
Grant funded and collaborated with USA Hockey   
Supplemental Physical Therapist - Mayo Clinic , Rochester, Minnesota 2004 - 2005   
Staff Physical Therapist - Benedictine Health System, Plainview, Minnesota 2004 - 2005   
Staff Physical Therapist - Mayo Clinic , Rochester, Minnesota   
Clinical Lead PT, Spinal Cord Injury – Mayo Clinic, Rochester, Minnesota 2005 – 2009   
2009 - present   
Professional & Community Memberships, Societies and Services   
Professional Memberships & Services   
American Physical Therapy Association   
Member, United States of America 2002 - 2014   
SCI CAN Non-Profit Foundation   
Board Member, United States of America 2012 - Present   
Educational Activities   
Curriculum/Course Development   
Faculty, Mayo Clinic Neurological Residency Program, Spinal Cord Injury Curriculum   
  
Movement Science III   
PT 6300 (2 hour lecture and lab/year)   
Mayo Clinic College of Medicine Physical Therapy Program   
Rochester, Minnesota 2016 - Present   
  
2012 - Present   
Management of Neuromuscular Conditions I   
PT 6420 ( 6 lab/lecture sessions/year)   
Mayo Clinic College of Medicine Physical Therapy Program   
Rochester, Minnesota   
  
Course Director   
Clinical Application of Electrical Stimulation in Combination with Activity Based Restorative Therapies for the Neurologic Patient   
Rochester, Minnesota 2011 - Present   
  
  
  
  
  
01/2016   
Teaching Intramural   
Facilitation use of Therafin sliding boards   
Mayo Clinic ECHO/Stress RN and Technicians   
Rochester, Minnesota 05/2013   
Quarter 1: Bed Mobility   
SCI Quarterly Skills Lab PMR Rehab Therapists   
Rochester, Minnesota 03/2013   
Quarter 4: Transfers   
SCI Quarterly Skills Lab PMR Rehab Therapists   
Rochester, Minnesota 03/2013   
Collaboration and educate residents to Mayo Clinic's spinal cord injury outpatient program incorporating locomotor training skills/principles, compensation strategies, health and wellness, and client education opportunities   
Mayo Clinic Physician Residency Program   
Rochester, Minnesota 01/2013 - Present   
Bodyweight Support Gait Training Utilizing ZeroG   
Training and skills check off for staff education PMR Rehab Therapists   
Rochester, Minnesota 12/2012-present   
Quarter 1: Bed Mobility   
SCI Quarterly Skills Lab PMR Rehab Therapists   
Rochester, Minnesota 12/2012; 8/2015   
Quarter 4: Transfers   
SCI Quarterly Skills Lab PMR Rehab Therapists   
Rochester, Minnesota 12/2012; 10/2015   
Innovative Treatment Options for Neuro Population   
Mayo Clinic Grand Rounds   
Rochester, Minnesota 03/2012   
Manual Wheelchair Adjustments 101   
PMR Rehab Therapists   
Rochester, Minnesota 01/2012   
Updates in therapy interventions for SCI population   
Physical Medicine and Rehabilitation Nursing Staff   
Rochester, Minnesota 11/2011   
Implementation of Documentation and Procurement Process for Durable Medical Equipment for Inpatient Rehab Patients   
Lab training sessions with therapy staff In-services to PMR consultants   
Rochester, Minnesota 08/2011   
Updates in therapy interventions for SCI population   
Physical Medicine and Rehabilitation Nursing Staff   
Rochester, Minnesota 05/2011   
X-sensor Pressure Sensor Competency Training and Education   
St. Mary's Hospital Rehab staff checklist   
Rochester, Minnesota 04/2011   
Academic Career Development   
ACRM   
Dallas, TX   
  
Advanced Locomotor Training Principles   
NeuroRecovery Network   
Ohio State University   
Columbus, Ohio   
  
Neuro Summit Conference Attendance   
Mayo Clinic   
Rochester, Minnesota   
  
Neuro Summit Conference Attendance   
Mayo Clinic   
Rochester, Minnesota 10/2015   
  
  
08/2015   
  
  
  
  
05/2014   
  
  
  
10/2013   
Spring Conference Attendance   
American Spinal Cord Injury Association (ASIA)   
Denver, Colorado 05/2012   
SIT Seating Seminar   
Minneapolis, Minnesota 09/2011   
Spring Conference   
American Spinal Cord Injury Association (ASIA)   
Washington, District of Columbia 04/2011   
Amputee Treatment and Plan of Care   
Mayo Clinic Physical Therapy Alumni Association Spring Course   
Rochester, Minnesota 04/2010   
Combined Sections Meeting   
American Physical Therapy Association (APTA)   
Las Vegas, Nevada 02/2009   
Contemporary Forums   
Spinal Cord Injury   
San Francisco, California 05/2008   
Education and Credentialing Program   
American Physical Therapy Association (APTA) Clinical Instructor   
Rochester, Minnesota 04/2008   
Institutional/Departmental Administrative Responsibilities, Committee Memberships and Other Activities   
Mayo Clinic   
SCI Practice Committee   
Member, Rochester, Minnesota 08/2009 - Present   
SCI Leadership Committee   
Member, Rochester, Minnesota 08/2009 - Present   
SCI workgroup #2, developing standardizations of care following ICF model and framework   
Coordinator, Rochester, Minnesota 11/2011 - 2013   
Mayo Clinic in Rochester   
Neuro Summit Conference Mayo Clinic   
Member of Planning Committee   
  
SCI CARF 2014 - Present   
Member, Rochester, Minnesota   
08/2009 - Present   
Presentations Extramural   
Regional   
  
Oral   
  
Virtual Health and Wellness for Spinal Cord Injured Population   
Mayo Clinic, PMR Grand Rounds   
Rochester, Minnesota   
  
10/2015   
Spinal Cord Injury Rehabilitation: At a Glimpse...   
SCI CAN Foundation Winter Fundraiser   
Des Moines, Iowa 01/2013   
Gait Analysis of a Young Athlete with Spastic Incomplete Quadriplegia   
Mayo Clinic NeuroSummit Conference   
Rochester, Minnesota 10/2012   
The Benefits of lower extremity weight bearing with mobility to improve functional activity and discharge planning following an incomplete spinal cord injury   
Mayo Clinic Physical Therapy Alumni Association   
Rochester, Minnesota 04/2012   
All Staff Meeting   
Mayo Clinic   
Minnesota 10/2011   
  
Clinical Practice, Interests, and Accomplishments   
Clinical Practice: 90% patient care contact (acute, IRF, outpatient spinal cord injury rehabilitation   
Interests: Spinal cord injury health and wellness, recovery improving quality of life   
Research Interests   
Gait analysis for neurologically impaired population   
Spinal Cord Injury recovery including gait   
Research Grants Awarded   
Completed Grants   
Foundation   
Co-Investigator   
  
  
  
Primary Investigator United States Multi-Center Study to Assess the Validity and Reliability of the Spinal Cord Independence Measure. Funded by Craig H. Neilson Foundation.   
  
Virtual Health and Wellness for SCI/D Population   
Funded by CFI, Mayo Clinic, CoDE 2014 09/2008 - 08/2010   
  
  
  
01/2014-12/2014   
Mayo IRB Protocols   
Active   
Co-Investigator   
  
  
Other study Staff   
  
  
Principal Investigator   
  
  
Co-Investigator Accessible Mobile Health and Wellness. (17-008524) Funding: CCaTS, Mayo Clinic   
  
The Effectiveness of a Performance of a Performance and Nutrition Program for Athletes in Adaptive Sports. (17-005392). Funding: ASIA   
  
Feasibility of a Virtual Health and Wellness Program for Individuals with Spinal Cord Injury. Center for Innovation CoDE 2014 grants. (14-004227)   
  
A Feasibility study: Epidural Stimulation to Enable Volitional Movement after Chronic Complete Paralysis in Humans. (14-004227) Transform the Practice Grant, Mayo Clinic. 9/2017 - present   
  
  
6/2017 - present   
  
  
  
10/2014 – present   
  
  
  
09/2015 - present   
Co-Investigator Mobility and Therapeutic Benefits Resulting from Exoskeleton Use in a Clinical Setting. (15-009375) DoD funding   
  
01/2016- present   
  
  
  
Other Study Staff Vertical Oscillation to Increase Bone Density in Persons with Chronic SCI. Neilsen Foundation and Neilsen Foundation and Departmental support. (08-004832) 02/2009 - 11/2015   
Completed   
Co-Principal Investigator Life space mobility in patients with spinal cord injury. PMR Discretionary funds. (12-004905) 06/2012 - 06/2013   
Co-Investigator The Relationship Between Quadriceps Muscle Performance and the Ability to Complete a Chair-Stand Test in Healthy Older Adults. (1905-03) 09/2003 - 09/2004   
Co-Investigator United States multi-center study to assess the validity and reliability of the Spinal Cord Independence Measure (SCIM III). Craig H Neilson Foundation Grant to University of California Irvine. Mayo is a subcontract. (08-008717) 02/2009 - 01/2011   
Co-Investigator Monitoring Seat Interface Pressure in Spinal Cord Injured Wheelchair Users at Home: A Feasibility Study. Center for Innovation, Department of Physical Medicine and Rehabilitation. (11-008898) 05/2012 - 04/2013   
Co-Investigator   
  
  
  
  
Co-Investigator Wireless Monitoring Seat Interface Pressure on a Portable Device in Spinal Cord Injured Wheelchair Users at Home: A Feasibility Study. CoDE Project Funds (Center for Innovation). (12-006710)   
  
Shoulder kinematics and loading during activities of daily living and ambulation in subjects with spinal cord injury. Startup funds for PI. (14-004562)   
11/2012 - 09/2013   
  
  
  
  
07/2014 - 07/2015   
Bibliography   
  
PhD, P. J. G. et al. Enabling Task-Specific Volitional Motor Functions via Spinal Cord Neuromodulation in a Human With Paraplegia. Mayo Clinic Proceedings 92, 544–554 (2017).   
  
Lanzino, D., Sanders, E., Mansch, B., Jones, A., Gill, M., Hollman, J. Life Space Assessment in Spinal Cord Injury. Topics in Spinal Cord Injury Rehabilitation. 22 (3), 173-182 (2016)   
  
  
Megan L. Gill, PT Page 6 of 6   
RE-AIMS 05/19/2015

***Margaux Linde,***   
Mayo Clinic

**CV:**  
Margaux B. Linde   
4010 Katie Lane NW, Rochester, MN 55901   
margblinde@gmail.com   
612-309-1287   
  
RELEVANT EXPERIENCE   
Mayo Clinic: Research Kinesiologist Nov. 2015- Present   
• Lead staff in the implementation of locomotor training for an FDA clinical trial   
• Educate staff on use of advanced medical equipment   
• Draft and document case reports and standard operation procedures and adhere to guidelines set forth by the IRB and FDA   
• Assist in grant writing and publications related to research studies   
• Assist with data collection and analysis   
• Calibration and maintenance of laboratory equipment   
• Perform physical examinations, evaluations and interpretation of data   
• Collaborate with a multidimensional teams across several institutions   
• Provide direct, hands on care to research subjects   
  
ExercisAbilities: ABILITY Program Director and Lead Exercise Specialist Oct. 2013 – Oct. 2015   
  
• Directed programming for clients with neurologically complex conditions   
• Completed integration of NeruoRecovery intensive exercise program including protocols and guidelines   
• Educate therapy and fitness staff on NeuroRecovery Scale   
• Manage complex staffing structure for ABILITY, personal training and group fitness   
• Acquired and implemented new scheduling and financial management system for private pay portion of the business   
• Analyze profit and loss statements to meet budgetary goals   
• Developed and implemented a labor budget in order to increase profitability   
• Hiring, training and managing of fitness department staff   
• Lead detailed internship program   
  
Courage Kenny Rehabilitation Institute, ABLE Program: Exercise Specialist Oct. 2010 - Oct. 2013   
  
• Managed client care for clients in intensive fitness programming   
• Lead individualized programming for clients with paralysis   
• Created fitness progressions within confines of the NeuroRecovery Network for patients with neurologic conditions   
• Contributed detailed data collection for outcome measures within CKRI and for the NRN   
• Worked with highly complex and specialized equipment (Therastride, Giger MD, RT300 – UE/LE, RT600, Stiwell)   
  
Walker Methodist Health Center: Fitness Director Aug. 2006 – Oct. 2009   
  
• Created and administered individualized cardiovascular and strength training for senior residents   
• Developed progressive programming for post-rehab clients (direct referral from Walker Physical Therapy)   
• Doubled membership in first year   
• Managed budget for individual fitness, aquatic, and group fitness programming   
• Formed new adaptive programs for senior population which expanded involvement   
• Partnered with wellness team to increase awareness of impact of healthy lifestyle changes   
  
Youngquest Fitness: Assistant Manager/NASM Certified Personal Trainer Oct. 2005 – Aug. 2006   
• Scheduled and performed sessions and assessments for clients   
• Administered fitness assessments/nutrition plans   
• Trained clients to produce competitive results   
• Sold memberships and personal training   
• Organized and updated client files   
Northwest Athletic Club: NASM Certified Personal Trainer May 2005 - Oct. 2005   
  
• Designed personal training programs   
• Provided customer service to club patrons   
• Educated clients on the benefits of health and fitness   
• Junior Strength Coordinator, XT Xplosive Training certified   
EDUCATION   
  
2015 NeuroRecovery Network National Training, Louisville, KY   
• NRS Advanced Certification   
  
2010 NeuroRecovery Network National Training, Louisville, KY   
• NRN Certified Exercise Specialist   
  
National Exercise and Sport Trainers Association   
• Certified Spencer Pilates Instructor (2008)   
• Certified Sport Yoga Instructor (2013)   
  
2005 National Academy of Sports Medicine   
• Certified Personal Trainer (Current-2019)   
  
2003-2005 Minnesota State University, Mankato, MN   
• Bachelor of Science, Human Performance/Physical Education   
  
Professional Conference Attendance   
  
• American Spinal Cord Injury for Professionals, National Conference 2017   
• Working 2 Walk Conference, Unite 2 Fight Paralysis 2016   
• Bridging Together: Spinal Cord Injury Conference, Allina Clinic 2015   
• NeuroRecovery Network: National Summit, Fraiser Rehab 2010   
  
ADDITIONAL CERTIFICATIONS and ACTIVITIES   
• Member Minnesota Spinal Cord Injury Association   
• National Arthritis Foundation Certified Program Instructor   
• American Red Cross CPR/AED (infant to adult) and First Aid certified (Current)   
• Grant writing (SCI-CAN and Operation Round Up recipient)

***Meghan Joyce, DPT***  
Craig Hospital

**CV:**  
MEGHAN JOYCE, PT, DPT, NCS   
  
PROFESSIONAL EXPERIENCE   
Craig Hospital Englewood, CO   
• Clinical Supervisor of NeuroRecovery Network Nov. 2012-Present   
• Staff Physical Therapist-Inpatient SCI Rehabilitation Jun 2010-Oct 2012   
  
American Physical Therapy Association   
• Vice Chair of SCI Special Interest Group, Neurology Section 2013- Present   
• Re-elected for 2nd term June of 2016.   
  
Adam’s Camp Winter Park, CO   
• Pediatric Physical Therapist Summer 2010   
  
PRESENTATIONS   
• Joyce, M. Sept 2013. “Social Medial and Considerations for the Health Care Professional”. Presented at Academy for Spinal Cord Injury Professionals. Las Vegas, NV   
• Joyce, M and Tefertiller, C. Sept 2015. "Rehab Technology Friend or Foe? Are we asking the right question?". Presented at Academy for Spinal Cord Injury Professionals. New Orleans, LA.   
• Joyce, M. “Evaluation and Interventions from the Physical Therapy Perspective at Crag Hospital”. Pre-sented at Ospedale Riabilitativo di Alta Specializzazione (ORAS) Motta di Livenza (TV), Italy June 22,2016.   
• Joyce. M, Becker K, Jones J. April 2016. “Neurologic Gait Rehabilitation: Principles, Problem Solving, and Practical Interventions”. Presented at APTA Colorado Chapter Spring Conference. Keystone, CO April 16, 2016.   
• Joyce, M. Delulio L, Scelza, “Spinal Cord Injury Systems of Care at Craig Hospital” Presented at Ospedale Riabilitativo di Alta Specializzazione (ORAS) Motta di Livenza (TV), Italy on 6/22/16.   
• Joyce, M, Butt L, Cahow, C, Fangman J, Harrison S. “Changing the Conversation: Interdisciplinary Strategies to Elicit Patient Engagement”. Presented at Academy for Spinal Cord Injury Professionals Annual Conference. Nashville, TN. September 4th, 2016.   
  
TEACHING EXPERIENCE   
University of Colorado Denver,CO   
• Adjunct Lab Instructor 2011-2015   
• Instruct 1st and 2nd year physical therapy students in SCI related material including mobility progres-sion for tetraplegia and paraplegia and treatment and progression for incomplete spinal cord injury.   
  
PROFESSIONAL LICENSES, MEMBERSHIPS, CERTIFICATIONS   
• Colorado Physical Therapy License 2010-Present   
• American Physical Therapy Association 2007-Present   
• Academy of Neurologic Physical Therapy Section Member 2007-Present   
• Spinal Cord Injury SIG   
• Colorado Acute Care/Rehabilitation SIG   
• Academy of Spinal Cord Injury Professionals 2010-Present   
• Neurologic Clinical Specialist (NCS) July 2016   
  
  
  
CONTINUING EDUCATION COURSES AND CONFERENCES   
• Combined Sections Meeting (CSM), APTA Conference – attended every annual conference from 2008-Present (with exception of 2013)   
• Academy of Spinal Cord Injury Professionals Conference-attended annual meeting, 2011-2016   
• American Physical Therapy Association State Spring Conference, April 16-17, 2016. Keystone, CO   
• American Spinal Injury Association, Annual Conference 2013 Chicago, IL   
• IV STEP 2016. Prevention, Prediction, Plasticity, and Participation. Columbus, OH July 2016.   
• Advanced Locomotor Training Certification, May 2016 Frazier Rehabilitation, Louisville, KY   
• Neurologic Practice Essentials: Exploring Neuroplasticity and its Rehabilitation Implications-pre-conference course Feb 2012, Chicago, IL Combined Sections Meeting   
• Mary Massery “If You Can’t Breathe, You Can’t Function”- May 2012, Craig Hospital, Englewood, CO   
• Ride Designs Seating and Positioning Course-Sept 2011, Ride Designs Certified, Englewood, CO   
• Shoulder Impairments: Optimizing Function With Manual Physical Therapy and Exercise Shoulder Impairment, Cameron MacDonald, PT, DPT, Craig Hospital, Englewood, CO

***Melanie Brennan, DPT***  
Exerciseabilities, Inc.

**CV:**  
Professional Experience   
  
Exercisabilities, Inc March 2011-present   
Rochester, MN   
Founder, CEO: Start up private practice that includes physical therapy and medical fitness. The company focus is on those with motor control, movement disorders, and neurologic impairment of all ages.   
♦ Program development for all activites   
♦ Designed aquatic therapy program at the Rochester YMCA   
♦ Converted to nonprofit in 2015, became CEO   
♦ Use of pilates and yoga therapy for neurologic recovery   
♦ Developed a NRN based locomotor training program for SCI and other disorders   
♦ Developed in home outpatient geriatric specialty care with focus in fall prevention   
♦ In 2017, 17 employees and 1200 visits per month   
  
  
Mayo Clinic Rochester February 2001 - 2012   
Rochester, MN   
Staff Physical Therapist: A 0.5 FTE position in acute rehabilitation working as a member of the spinal cord injury team in acute care, rehabilitation, and outpatient services. Evaluation, intervention, and dismissal planning provided for movement impairments related to diagnoses of the nervous system including but not limited to traumatic and non-traumatic spinal cord injury, Guillan-Barre Syndrome, Multiple Sclerosis, peripheral neuropathy, myelopathy, and critical illness myopathy.   
Responsibilities:   
♦ Participate in program development for spinal cord injury practice   
♦ Supervision of physical therapy assistants   
♦ Clinical instructor for physical therapy and physical therapy assistant students   
♦ Educate new employees and acute care therapists on acute care for the spinal cord injury patient   
♦ Wheelchair and equipment prescription   
♦ Participation with spine team through rounds and daily communication   
♦ Trained Lokomat practitioner   
♦ Authored patient education chapter on fitness and wellness for the spinal cord injury handbook   
  
Fairview Southdale Hospital October 1998 – June 2001   
Edina, Minnesota   
Staff Physical Therapist: A full time rotating position with experience in the general orthopedic outpatient, orthopedic satellite, acute stroke center, bedside acute, and neurological outpatient.   
Responsibilities:   
♦ Supervisor of physical therapy assistants   
♦ Utilize neuro-developmental treatment technique(NDT), forced use, and constraint induced movement therapy(CIT) for stroke in and outpatients   
♦ Center Clinical Coordinator of Education (CCCE)   
♦ Physical Therapy staff representative on Interdisciplinary Stroke Center Development Team   
♦ Clinical Ladder Committee Representative (Level III)   
♦ Clinical Instructor   
  
Rehab Works, INC January 1998 – October 1998 St Paul, Minnesota   
Staff Physical Therapist: A full time position split between two nursing homes.   
Responsibilities:   
Sholom Home East:   
♦ Staff Physical Therapist in subacute and long term care setting   
  
Bethel Care Center:   
♦ Senior Physical Therapist in subacute and long term care setting   
♦ Supervisor of one physical therapy assistant   
  
Methodist Hospital July 1997 – August 1997   
St. Louis Park, Minnesota   
Physical Therapy Student: A clinical affiliation in an acute neurological rehabilitation gym working with a variety of adult neurological diagnoses.   
  
Children’s Care Hospital and School April 1997 – May 1997   
Sioux Falls, South Dakota   
Physical Therapy Student: A pediatric clinical affiliation offering experience with medical and residential inpatients, school outreach, home health care, and outpatient services.   
  
Phoenix Rehabilitation Center March 1997 – April 1997   
Seattle, Washington   
Physical Therapy Student: A clinical affiliation at a subacute and long-term rehabilitation center providing care to a geriatric population.   
  
Healthreach May 1996 – July 1996   
Albert Lea, Minnesota   
Physical Therapy Student: A clinical affiliation in outpatient orthopedics providing care to all ages.   
  
Education   
  
Doctor in Physical Therapy   
The College of St Scholastica, Duluth, Minnesota December 2008   
GPA: 4.0   
  
Master of Arts in Physical Therapy February 1998   
The College of St Scholastica, Duluth, Minnesota   
♦ Cumulative GPA: 3.8   
  
Bachelor of Arts Degree, Health Sciences May 1996   
The College of St Scholastica, Duluth, Minnesota   
♦ Cumulative GPA: 3.9   
♦ Institutional Honors: Summa Cum Laude   
  
Post-Secondary Option Education Sept. 1992 - May 1993   
Rochester Community College, Rochester, Minnesota   
  
High School Degree May 1993   
Byron High School Byron, Minnesota   
♦ Graduated with Highest Honors   
  
Activities   
  
♦ WellConnect Southeast MN Steering committee member 2017   
♦ Olmsted County Obesity Coalition Steering Committee member 2016-2017   
♦ American Physical Therapy Association (APTA) Member 1996 - present   
♦ APTA Neurology Section Member 1999 – present   
♦ APTA Federal Legislative Affairs Key Contact to Tim Walz   
♦ MNAPTA Ethics Committee Chair 2002-2006   
♦ MNAPTA Ethics Committee Member July 2000 – present   
♦ MNAPTA Leadership Task Force Co Chair January 2004 – February 2006   
♦ MNAPTA Membership Co Chair June 2006 – present   
♦ MNAPTA Delegate to APTA House 2006 and 2007   
♦ APTA Student Liaison 1996-1998   
♦ CSS Student Senate Vice President 1995-1996   
♦ Kappa Sigma Sigma Honor Society 1994-1996   
  
Presentations   
  
♦ Acute Care Rehabilitation for the Spinal Cord Injury Patient Delivered to the St Mary’s Hospital Acute Care PT staff, December 2007   
♦ “Will I Walk Again?”: Locomotor training for the patient with incomplete spinal cord injury patient. Delivered at the MNAPTA Fall Conference, October 2008   
♦ From Dream to Reality: The Growth of 3 Distinct Private Practice Models 2014   
  
Publications   
  
♦ Fitness and Exercise Chapter for the Mayo Clinic Spinal Cord Injury Manual   
  
  
  
Awards   
  
♦ 2017 Olmsted County Public Health Partner of the Year   
♦ 2016 ARC Southeast MN Community Professional Service Award   
♦ 2009 MN APTA Corrine Ellingham Service Award Recipient   
♦ Fairview Southdale Medical Staff Scholarship Recipient February 2000   
♦ Fairview Rehabilitation Services Clinical Involvement Level III, March 2000   
♦ 1999 Fairview Team Recognition Award (Stoke Center Development Team)   
♦ 1997 Minnesota APTA Outstanding Physical Therapy Student   
  
Continuing Education   
  
Rock Tape   
Date: April 2015   
Contact Hours 8.0   
  
Dream to reality - 3 private practice models   
Date: April 25, 2014   
Instructor: Melanie Brennan   
Contact Hours 3.75   
  
SAIL Training   
Date: September 20, 2013   
Instructor: SAIL Developers   
Contact hours 8.0   
  
PWR! training   
Date: October 19-20, 2013   
Instructor: Becky Farley, PHD   
Contact hours 16.0   
  
Otago Training   
Date: October, 2012   
Instructor: Kris Gjerde, PT   
Contact hours: 4.0   
  
Lakshmi Voelker Chair Yoga Certification Course   
Date: October 2009   
Instructor: Lakshmi Voelker, CYT   
Contact Hours: 24.0   
  
Locomotor NRN Training   
Date: October 31-November 3, 2007   
Instructor: Andrea Behrman, PHD, PT   
Contact Hours: 24.0   
  
Therapeutic Yoga   
Date: September, 2007   
Instructor: Julie Whitbeck, OTR, CYT   
Contact Hours: 8.0   
  
Plasticity Along the Neural Axis   
Date: February 14, 2007   
Instructor: Neurology Section APTA   
Contact Hours: 14.75   
  
Stand Up and Be Strong   
Date January 31, 2007   
Instructor: Kris Gjerde, PT   
Contact Hours: 1.5   
  
Mobilization of the Nervous System   
Date: May 7, 2004   
Instructor: David Butler, PT, NOI   
Contact Hours: 14.0   
  
Seating and Positioning   
Date: February 21, 2004   
Instructor: Caroline Portoghese, OTR/L   
Contact Hours: 4.0   
  
NDT Inservice   
Date: August 13, 2003   
Instructor: Jill Maragonore, PT   
Contact Hours: 1.0   
  
Clinical Instructor Credentialing Program APTA   
Date: November, 2002   
Instructor: Heidi Dunfee, PT   
Contact Hours: 15.0   
  
Peer Reviewer Training   
Date: September 14, 2002   
Instructor: Deb Madanayake, PT, GCS   
Contact Hours: 4.75   
  
The Trunk   
Date: March 14, 2002   
Instructor: Jill Maraganore, PT   
Contact Hours: 1.0   
  
The Shoulder   
Date: February 28, 2002   
Instructor: Jill Maraganore, PT   
Contact Hours: 1.0   
  
Stance Control Orthotic Kee Joint Qualification   
Date: February 2, 2002   
Instructor: John Michael, CPO   
Contact Hours: 8.5   
  
Strategies to Optimize Upper Extremity Function in the Patient with Neurological Dysfunction   
Date: March 23 – 25, 2001   
Instructor: Ann Charness, MS, PT   
Contact Hours: 13.75   
  
Neuro Development Technique Training Part I - Introduction to treatment of Adult Hemiplegia (2week)   
Date: April 3 - 14, 2000   
Instructors: Jan Utley, MS,PT and Susan Wohl, PT   
Contact Hours: 69.95   
  
BCLS Recertification (CPR)   
Date: November 6, 2000   
  
No Easy Answers: The Value of the Rehab Team (conference)   
Exercise Through the Continuum of Care   
Date: September 22, 2000   
Instructors: Sandy Marden-Lokken,PT and Maurie Steinley,PT   
Contact Hours: 5.0   
  
Guide to Physical Therapy Practice Training   
Date: January 27, 2000   
Instructors: Marilyn Woods, PT and Stephanie Lunning, PT   
Contact Hours: 1.5   
  
Creating Memorable Moments: Improving Customer Satisfaction   
Date: February 1, 2000   
Instructor: Brad Beard, PT, VP Fairview Rehab Services   
Contact Hours: 1.8   
  
Multidisciplinary Approach to the Care of the Stroke Patient   
Date: October 18, 1999   
Instructor: Dr. Karen Porth, MD, Marnee Shepard, PT, NCS and the Stroke Center Care Team   
Contact Hours: 8.0   
  
Challenges and Opportunities of Clinical Education in a Changing Health Care Environment   
Date: October 8, 1999   
Instructor: Horace Hallman, MS, PT and the MN Clinical Education Consortium   
Contact Hours: 6.0   
  
PNF: Improving Trunk Function through Distal and Proximal Input   
Date: July 22 - 24, 1999   
Instructor: Mary Massery, PT   
Contact Hours: 15.75   
  
Geriatric Neurological Patient: A Clinical Approach to Balance and Falls   
Date: April 17 -18, 1999   
Instructor: Carole C Burnett, EDM, PT   
Contact Hours: 12.0   
  
Management of the Acute CVA   
Date: April 13, 1999   
Instructor: Dr. Karen Porth, MD   
Contact Hours: 1.0   
  
Current Concepts in Wound Healing   
Date: May 16 -17, 1998   
Instructor: Jeffrey Feedar, PT   
Contact Hours 12.0   
  
Professional Conferences   
  
2015 Medical Fitness Association National New Orleans, LA   
  
2014 MNAPTA Spring Conference, Minneapolis, MN   
  
2013 MNAPTA Spring Conference, Minneapolis, MN   
  
2012 MNAPTA Fall Conference, Rochester, MN   
  
2009 MNAPTA Spring Conference, Minneapolis MN   
  
2008 MNAPTA Spring Conference, Minneapolis, MN   
  
2007 APTA Legislative Affairs Forum, Washington, DC   
  
2007 APTA Combined Sections Meeting, Boston, MA   
  
2007 MNAPTA Spring Conference, Minneapolis, MN   
  
2006 MNAPTA Fall Conference, St Could, MN   
  
2006 APTA Annual Conference, Orlando, FL   
  
2006 MNAPTA Spring Conference, Minneapolis, MN   
  
2005 MNAPTA Spring Conference, Minneapolis, MN   
  
2004 MNAPTA Fall Conference, Mankato, MN   
  
2002 MNAPTA Fall Conference, Rochester, MN   
  
1999 MNAPTA Fall Conference, Red Wing, MN   
  
1997 MNAPTA Spring Conference, Brooklyn Park, MN   
  
1996 MNAPTA Fall Conference, St. Cloud, MN   
  
1996 APTA National Conference, Minneapolis, MN

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**The EEG-controlled noninvasive MoreGrasp neuroprosthesis - decoding of multiple natural single limb movements and multipad-electrodes for closed-loop grasp pattern control**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Ruediger Rupp, Dr.-Ing.***  
Heidelberg University Hospital - Spinal Cord Injury Center

**CV:**  
14.05.1969 born in Mannheim   
1988 Abitur   
1990 Intermediate diploma in electrical engineering, Technical University of Karlsruhe, Germany   
1994 Diploma in electrical engineering, Technical University of Karlsruhe, Germany   
1994-1996 Research assistant at the Institute for Biocybernetics and Biomedical Engineering (Head: Prof. Dr. G. Vossius), Technical University of Karlsruhe, Germany   
2008 Ph.D in electrical engineering (Dr.-Ing.), Topic: “Motor rehabilitation of individuals with spinal cord injury by electrical stimulation – an integrative concept for the control of therapy and functional restoration”, Technical University of Karlsruhe, Germany   
1996-2009 Head of the Research Department of the Orthopedic University Hospital II (Head: Prof. Dr. H.J. Gerner), Heidelberg, Germany   
since 2009 Head of Experimental Neurorehabilitation, Heidelberg University Hospital – Spinal Cord Injury Center (Head: Prof. Dr. N. Weidner), Heidelberg, Germany   
  
Research expertise   
Spinal cord injury, rehabilitation engineering, neuroprosthetics, functional and therapeutic elektrical stimulation, man-machine interfaces, locomotion therapy and robotics, motion analysis, clinical and neurophysiological assessments   
Key indices Google Scholar from 28.09.2017:   
citations: 3.895; h-index: 27; i10-index: 53   
  
Awards   
2005 Innovation award for promotion of medical technology of the German Federal Ministry of Education and Research (BMBF)   
2008 Innovation award of the German Foundation Spinal Cord Injury (DSQ)   
2008 Konrad-Biesalski award of the German Society for Orthopedics and orthopedic Surgery (DGOOC)   
2010 Poster award of the German Society for Neurorehabilitation (DGNR)   
2013 Best platform presentation of the International Spinal Cord Society (ISCoS)   
2015 Friedrich-Wilhelm-Meinecke Award of the German-speaking Medical Spinal Cord Injury Society (DMGP)   
  
Society memberships   
Foundation member of the International Functional Electrical Stimulation Society (IFESS)   
German Society for Biomedical Engineering (DGBMT) in the VDE   
IEEE   
German Society of Orthopedics and Orthopedic Surgery (DGOOC)   
International Spinal Cord Society (ISCoS)   
Scientific Board of the German-speaking Medical Spinal Cord Injury Society (DMGP)   
Board of Directors of the German Spinal Cord Injury Foundation (DSQ)   
American Spinal Injury Association (ASIA), Chair of the International Standards Committee   
  
Reviewer activities   
Organisations Deutsche Forschungsgemeinschaft (DFG)   
German Federal Ministry of Education and Research (BMBF)   
Alexander von Humboldt-Foundation (AvHS)   
Dutch Technology Foundation (STW)   
Swiss National Science Foundation (SNSF)   
German Academic Exchange Service (DAAD)   
International Spinal Research Trust (ISRT)   
  
Scientific Journals   
Medical Engineering and Physics (Editorial Board)   
Spinal Cord   
Orthopädietechnik (Scientific Board)   
Automatisierungstechnik, Spinal Cord ,Journal of Spinal Cord Medicine, Journal of Neural Engineering, Journal of Neuro-rehabilitation and Neural Repair, Neuromodulation, Biomedizinische Technik, Der Orthopäde, Experimental Brain Research, Clinical Neurophysiology, Journal of Robotics, PLoS ONE, Frontiers of Neural Circuits, Restorative Neurology and Neuroscience, Engineering and Physics in Medicine, IEEE Trans. on Neural Systems & Rehab. Eng., IEEE Transactions on Biomedical Engineering, IEEE Journal of Biomedical and Health Informatics, Restorative Neurology and Neuroscience, Physiological Measurement, Medical & Biological Engineering & Computing, Lancet Neurology   
  
Publications (last 5 years)   
2013   
1. Schuld C., Wiese J., Franz S., Putz C., Stierle I., Smoor I., Weidner N., EMSCI study group, Rupp R.: Effect of formal training in scaling, scoring and classification of the International Standards for Neurological Classification of Spinal Cord Injury, Spinal Cord 51(4), 282-288, 2013   
2. Kamradt T., Rasch C., Böttinger M., Mürle B., Hensel C., Fürstenberg H., Weidner N., Rupp R., Hug A.: Spinal cord injury: Association with axonal peripheral neuropathy in severely paralyzed limbs, Eur J Neurol. 20(5), :843-848, 2013   
3. Kreilinger A., Hiebel H., Ofner P., Rohm M., Rupp R., Müller-Putz G.R.: Brain-Computer Interfaces als assistierende Technologie und in der Rehabilitation nach Schlaganfall, Orthopädietechnik 6, 1-7, 2013   
4. Rohm M., Schneiders M., Müller C., Kreilinger A., Kaiser V., Müller-Putz G.R., Rupp R.: Hybrid brain-computer interfaces and hybrid neuroprostheses for restoration of upper limb functions in individuals with high-level spinal cord injury, Artificial Intelligence in Medicine 59, 133-142, 2013   
5. Kübler A., Mattia D., Rupp R., Tangermann M.: Facing the challenge: Bringing brain-computer interfaces to end-users, Artificial Intelligence in Medicine 59, 55-60, 2013   
6. Kreilinger A., Rohm M., Kaiser V., Leeb R., Rupp R., Müller-Putz G.R.: Neuroprosthesis Control via Noninvasive Brain-Computer Interface, IEEE Intelligent Systems 28 (5), 40-43, 2013   
2014   
7. Tanadini L.G., Steeves J.D., Hothorn T., Abel R., Maier D., Schubert M., Weidner N., Rupp R., Curt A.: Identifying Homogeneous Subgroups in Neurological Disorders: Unbiased Recursive Partitioning in Cervical Complete Spinal Cord Injury, Neurorehabil Neural Repair 28(6), 507-515, 2014   
8. Meyer A.: Alles im Griff, Geist & Gehirn 4/2014, 64-68, 2014   
9. Schließmann D., Schuld C., Schneiders M., Derlien S., Glöckner M., Gladow T., Weidner N., Rupp R.: Feasibility of visual instrumented movement feedback therapy in individuals with motor incomplete spinal cord injury walking on a treadmill, Frontiers in Neuroscience 8:416. doi: 10.3389/fnhum.2014.00416, 2014   
10. Rupp R., Blesch A., Schad L., Draganski B., Weidner N.: Neues aus Diagnostik und Therapie der spinalen Erkrankungen, Der Nervenarzt 85, 946–954, 2014   
11. Castellini C., Artemiadis P., Wininger M., Ajoudani A., Alimusaj M., Bicchi A., Caputo B., Craelius W., Dosen S., Englehart K., Farina D., Gijsberts A., Godfrey S.B., Hargrove L., Ison M., Kuiken T.A., Markovic M., Pilarski P.M., Rupp R., Scheme E.: Proceedings of the first workshop on Peripheral Machine Interfaces: Going beyond traditional surface electromyography, Frontiers in Neurorobotics 8:22, doi: 10.3389/fnbot.2014.00022, 2014   
12. Rupp R.: Challenges in clinical applications of brain computer interfaces in individuals with spinal cord injury, Frontiers Neuroengineering 7:38, 2014   
13. Rupp R.: Verlust der Handfunktion – was bietet die Technik ?, Orthopädische Nachrichten – Special Hand 10.2014, 10-11, 2014   
14. Kuni B., Cárdenas-Montemayor E., Bangert Y., Rupp R., Ales J., Friedmann-Bette B., Schmitt H.: Impaired jump landing after exercise in recreational and in high-performance athletes, J Strength Cond Res 28(8), 2306-13, 2014   
15. Putz C., Plewa H., Helbig L., Stenzel M., Fürstenberg C.H., Gerner H.J., Akbar M., Weidner N., Rupp R.: Autonomic dysreflexia: a possible trigger for the development of heterotopic ossifications after traumatic spinal cord injury ? A clinical longitudinal study, European Journal for Trauma and Emergency Surgery 40:721–726, 2014   
2015   
16. Rupp R., Schließmann D., Plewa H., Schuld C., Gerner H.J., Weidner N., Hofer E.P., Knestel M.: Safety and efficacy of at-home robotic locomotion therapy in individuals with chronic incomplete spinal cord injury: A prospective, pre-post intervention, proof-of-concept study, PLOS ONE, 10(3):e0119167, 2015   
17. Schuld C., Franz S., van Hedel H.J.A., Moosburger J., Maier D., Abel R., van de Meent H., Curt A., Weidner N., EMSCI study group, Rupp R.: International standards for neurological classification of spinal cord injury: classification skills of clinicians versus computational algorithms, Spinal Cord 53(4), 324-31, 2015   
18. Putz C., Gantz S., Bruckner T., Moradi B., Helbig L., Gerner H.J., Weidner N., Rupp R., Akbar M.: Preoperative scoring and limits of prognostication: functional outcome after surgical decompression in metastatic spinal cord compression, Oncology 86(3): 177-84, 2014 und Erratum in: Oncology 88(4), 260, 2015.   
19. Rupp R., Rohm M., Schneiders M., Kreilinger A., Müller-Putz G.R.: Functional rehabilitation of the paralyzed upper extremity after spinal cord injury by noninvasive hybrid neuroprostheses, Proceedings of the IEEE 103(6), 954-968, 2015   
20. Müller-Putz G.R., Leeb R., Tangermann M., Höhne J., Kübler A., Cincotti F., Mattia D., Rupp R., Müller K.-R., Millán J. del R.: Towards non-invasive Hybrid Brain-Computer Interfaces: framework, practice, clinical application and beyond, Proceedings of the IEEE 103(6), 926-943, 2015   
21. Seeger J.B., Schikschneit J.P., Schuld C., Rupp R., Jäger S., Schmitt H, Maier G.S., Clarius M.: Change of gait in patients with lateral osteoarthritis of the knee after mobile-bearing unicompartmental knee arthroplasty, Knee Surg Sports Traumatol Arthrosc 23(7), 2049-54, 2015   
22. Rieger J.S., Jäger S., Kretzer J.P., Rupp R., Bitsch R.G.: Loosening detection of the femoral component of hip prostheses with extracorporeal shockwaves: a pilot study, Medical Engineering & Physics 37(2), 157-64, 2015   
23. Günther M.I., Günther M., Schneiders M., Rupp R., Blesch A.: AngleJ: A new tool for the automated measurement of neurite growth orientation in tissue sections, Journal of Neuroscience Methods 251, 143-50, 2015   
24. Hänselmann S., Schneiders M., Weidner N., Rupp R.: Transcranial magnetic stimulation for individual identification of the best electrode position for a motor imagery-based brain-computer interface, Journal of Neuroengineering and Rehabilitation 12:71, 2015   
25. Doneit W., Tuga M. R., Mikut R., Liebetanz D., Rupp R., Reischl M.: Kalibrierungs- und Trainingsstrategien zur individuellen Signalgenerierung für die myoelektrische Steuerung technischer Hilfsmittel, tm - Technisches Messen 82(9), 411–421, 2015   
26. Tanadini L.G., Hothorn T., Jones L.A., Lammertse D.P., Abel R., Maier D., Rupp R., Weidner N., Curt A., Steeves J.D.: Toward Inclusive Trial Protocols in Heterogeneous Neurological Disorders: Prediction-Based Stratification of Participants With Incomplete Cervical Spinal Cord Injury, Neurorehabil Neural Repair 29(9), 867-77, 2015   
27. Schmalfuß L., Rupp R., Tuga M.R., Kogut A., Hewitt M., Meincke J., Klinker F., Duttenhöfer W., Eck U., Mikut R., Reischl M., Liebetanz D.: Steer by ear: Myoelectric auricular control of powered wheelchairs for individuals with spinal cord injury, Restorative Neurology and Neuroscience 34(1), 79-95, 2015   
28. Berberich M., Franz S., Rohm M., Weidner N., Rupp R.: Nichtinvasive Greifneuroprothesen für Hoch-Querschnittgelähmte – der Schlüssel(griff) zu mehr Lebensqualität, Medizinisch-Orthopädische Technik 6, 29-35, 2015   
2016   
29. Nees T.A., Tappe-Theodor A., Sliwinski C., Motsch M., Rupp R., Kuner R., Weidner N., Blesch A.: Early-onset treadmill training reduces mechanical allodynia and modulates CGRP fiber density in lamina III/IV in a mouse model of spinal cord contusion injury, Pain 157(3), 687-97, 2016   
30. Rupp R., Franz S., Berberich M., Rohm M., Schneiders M., Hessing B., Weidner N., Müller-Putz G.R.: Ich (be)greife, also bin ich – Möglichkeiten und Herausforderungen von nichtinvasiven Greifneuroprothesen für Hoch-Querschnittgelähmte, Orthopädietechnik 05, 56-61, 2016   
31. Pavese C., Schneider M.P., Schubert M., Curt A., Scivoletto G., Finazzi-Agrò E., Mehnert U., Maier D., Abel R., Röhrich F., Weidner N., Rupp R., Kessels A.G., Bachmann L.M., Kessler T.M.: Prediction of Bladder Outcomes after Traumatic Spinal Cord Injury: A Longitudinal Cohort Study, PLoS Med. 13(6):e1002041, 2016   
32. Schuld C., Franz S., Brüggemann K., Heutehaus L., Weidner N., Kirshblum S.C., Rupp R.: International standards for neurological classification of spinal cord injury: impact of the revised worksheet (revision 02/13) on classification performance, J Spinal Cord Med 39(5):504-512, 2016   
33. Franz S., Schuld C., Kirshblum S., Weidner N., Rupp R.: Motor levels in high cervical spinal cord injuries – Implications for the International Standards for Neurological Classification of Spinal Cord Injury, Journal of Spinal Cord Medicine, J Spinal Cord Med. 39(5), 513-517, 2016   
34. Maurer-Burkhard B., Smoor I., von Reumont A., Deckstein G., Stierle I., Rupp R., Schuld C.: Validity and reliability of a locomotor stage-based functional rating scale in spinal cord injury, Spinal Cord 54(8):619-625, 2016   
35. Rupp R.: Gerätegestützte Neurorehabilitation – was wird die Zukunft bringen ? neuroreha 8:110-116, 2016   
36. Reischl M., Tuga M.R., Meister L., Alberg E., Doneit W., Liebetanz D., Rupp R., Mikut R.: Einfluss von Trainingseffekten auf die Parameteradaption für Mensch-Maschine-Schnittstellen in der Medizintechnik, at – Automatisierungstechnik 64(10), 816–826, 2016   
2017   
37. Huggins J.E., Guger C., Ziat M., Zander T.O., Taylor D., Tangermann M., Soria-Frisch A., Simeral J., Scherer R., Rupp R., Ruffini G., Robinson D.K.R., Ramsey N.F., Nijholt A., Müller-Putz G.R.,McFarland D.J., Mattia D.,Lance B.J., Kindermans P.-J., Iturrate I., Herff C., Gupta D., Do A.H., Collinger J.L., Chavarriaga R., Chase S.M., Bleichner M.G., Batista A., Anderson C.W., Aarnoutse E.J.: Workshops of the Sixth International Brain-Computer Interface Meeting: brain- computer interfaces past, present, and future, Brain-Computer Interfaces 4:1-2, 3-36, 2017   
38. Petersen J., Spiess M., Curt A., Weidner N., Rupp R., Abel R., EM-SCI Study Group, Schubert M.: Upper limb recovery in spinal cord injury: Involvement of central and peripheral motor pathways, Neurorehabilitation & Neural Repair, in press   
39. Steeves J., Reed R., Mehra M., Kirshblum S., Maier D., Lammertse D., Blight A., Rupp R., Jones L., Abel, R., Weidner N., Curt A.: Spinal Cord Ability Ruler: An interval scale to measure volitional performance after spinal cord injury, Spinal Cord, in press   
  
Book Chapters:   
1. Tuga M., Rupp R., Liebetanz D., Schmalfuß L., Hübner E., Doneit W., Mikut R., Reischl M.: Co-Adaptives Lernen: Untersuchungen einer Mensch-Maschine-Schnittstelle mit anpassungsfähigem Systemverhalten. In: F. Hoffmann, E. Hüllermeier (Hrsg.) Proceedings 23. Workshop Computational Intelligence, KIT Scientific Publishing, Karlsruhe, 247-264, 2013   
2. Kreilinger A., Rupp R., Müller-Putz G.R.: Brain-Computer-Interfaces und Neuroprothesen als assistierende Technologien. In: M. Bauche, B. Greitemann, K.-J. Lotz, W. Mittelmaier (Hrsg.) Weißbuch „Rahmenbedingungen und Strukturen der Technischen Orthopädie in Deutschland“, Verlag Orthopädie-Technik, Dortmund, 191-194, 2014   
2014   
3. Rupp R., Rohm M., Schneiders M.: Brain-Computer Interfaces for control of upper extremity neuroprostheses in individuals with high spinal cord injury, In: G. Naik (ed.) Emerging Theory and Practice in Neuroprosthetics, IGIGlobal, Hershey, 237-264, 2014   
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11. Rupp R.: Brain-computer interfaces for motor rehabilitation. In: Müller B., Wolf S. (eds.), Handbook of Human Motion, Springer, Heidelberg, in press   
  
Presentations (last 5 years):   
1. Rupp R.: BCIs for control of upper extremity neuroprostheses – Facts, challenges and visions, TOBI Workshop IV, Sion, Schweiz, 23.-25.1.2013   
2. Rupp R.: BCI controlled neuroprosthesis, TOBI Final Review Meeting, Lausanne, Schweiz, 26.-28.2.2013   
3. Rupp R., Schuld C., Koller R., Franz S., Maier D., Abel R., Weidner N., Schubert M., Curt A., EMSCI-study group: Trends in EMSCI basic data over the last decade, 12th Annual EMSCI Meeting, Murnau, 4.6.2013   
4. Rupp R., Schuld C., Langpape A., Koller R., Mayer M., Schubert M., Ackermann C., Curt A., Abel R., Weidner N.: 4th round of the (re-)certification of the EMSCI network according to ISO 9001, 12th Annual EMSCI Meeting, Murnau, 4.6.2013   
5. Rupp R., Tiedemann S., Hirschfeld S., Marcus O., Walter M., Siedhoff M., Ketter G., Badke A., Henning U., Müller Verbiest G., Giesecke J., Liebscher T.: ParaReg – Vorstellung einer multizentrischen strukturierten Datenbank über Querschnittgelähmte mit einer Ateminsuffizienz, 26. Jahrestagung der Deutschsprachigen Gesellschaft für Paraplegie, Murnau, 5.-8.6.2013   
6. Rupp R., Schuld C., Koller R., Franz S., Maier D., Abel R., Weidner N., Schubert M., Curt A., EMSCI-study group: Trends aus zehn Jahren Datenerhebung der European Multicenter Study about Human Spinal Cord Injury (EMSCI), 26. Jahrestagung der Deutschsprachigen Gesellschaft für Paraplegie, Murnau, 5.-8.6.2013   
7. Schließmann D., Schuld C., Plewa H., Hofer E.P., Knestel M., Gerner H.J., Weidner N., Rupp R.: MoreGait – Studien- und Umfrageergebnisse eines von inkomplett Querschnittgelähmten zu Hause durchgeführten robotischen Lokomotionstrainings, 26. Jahrestagung der Deutschsprachigen Gesellschaft für Paraplegie, Murnau, 5.-8.6.2013   
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10. Rupp R.: „Die gelähmte Hand im Griff – Neuroprothetik der oberen Extremität, Festvortrag zur Eröffnung des Heidelberger Life-Science Lab 2013, Deutsches Krebsforschungszentrum (DKFZ), Heidelberg, 14.9.2013   
11. Rupp R.: Gerätegestützte Neurorehabilitation – was können Lokomotionsroboter wirklich leisten ?, 86. Kongress der Deutschen Gesellschaft für Neurologie, Dresden, 18.9.-21.9.2013   
12. Rupp R.: Laudatio für den Olijnyk Award for Research Participants der International Functional Electrical Stimulation Society (IFESS), Vienna Workshop for Functional Electrical Stimulation, Graz, Österreich, 19.9.-21.9.2013   
13. Rupp R., Rohm M., Schneiders M., Weidner N., Kaiser V., Kreilinger A., Müller-Putz G.R.: THINK2GRASP - BCI-controlled neuroprosthesis for the upper extremity, Dreiländertagung der Deutschen, Österreichischen und Schweizerischen Gesellschaft für Biomedizinische Technik, Graz, Österreich, 19.9.-21.9. 2013   
14. Rupp R: Neuroregeneration and neuroengineering – competition or convergence ?! BDebate “Neuroregeneration – is it the common frontier for bioengineering, neuroscience, robotics and neurorehabilitation, Barcelona, Spanien, 23.10.-24.10.2013   
15. Rupp R., Rohm M., Schneiders M., Weidner N., Kaiser V., Kreilinger A., Müller-Putz GR.: Non-invasive Brain-Computer Interfaces for control of upper extremity neuroprosthesis in tetraplegic individuals – Results from the European Integrated Project TOBI, 52nd Annual Meeting of the International Spinal Cord Society (ISCoS), Istanbul, Türkei, 28.10.-30.10.2013   
16. Rupp R., Schubert M.: Successful International Collaborations (European EMSCI) – Clinician Perspective, 52nd Annual Meeting of the International Spinal Cord Society (ISCoS), Istanbul, Türkei, 28.10.-30.10.2013   
17. Rupp R., Schuld C., Schliessmann D., Weidner N.: Watch your step – Realtime feedback as therapy in gait disorders, 4th Automated Mobility Analysis Symposium, Erlangen, 28.11.2013   
  
2014   
18. Rupp R., Laudatio für den Preisträger des Innovationspreises 2014 der Deutschen Stiftung Querschnittlähmung, München, 25.2.2014   
19. Rupp R.: Recommendations from the Advisory Board, Retreat BNCI Horizon, Hallstatt, Österreich, 24.3.-26.3.2014   
20. Rupp R., Weidner N.: Introduction to EMSCI network and proposed collaboration with ISIC, Symposium „Exploring new horizon in spine research”, Indian Spinal Injuries Centre, Neu Delhi, Indien, 25.4.2014   
21. Rupp R., Weidner N.: Research activities in neurorehabilitation, Symposium „Exploring new horizon in spine research”, Indian Spinal Injuries Centre, Neu Delhi, Indien, 25.4.2014   
22. Rupp R., Franz S., van Hedel H.J.A., Weidner N., Curt A., EMSCI study group, Schuld C.: ISNCSCI scoring, scaling and classification skills - SCI professionals versus personal computers, Scientific meeting of the American Spinal Injury Association (ASIA), San Antonio, Texas, USA, 14.5.-17.5.2014   
23. Rupp R.: Technology for enhancement of motor function in SCI – facts, challenges and visions, Joint Congress of European Neurology, Istanbul, Türkei, 31.5.-3.6.2014   
24. Rupp R.: Cooperation with ASIA and ISCoS, 13th EMSCI annual meeting, Kloster Banz, Bad Staffelstein, 2.6.2014   
25. Rupp R.: Die gelähmte Hand im Griff – Greineuroprothesen für Hochquerschnittgelähmte, Novartis Medizin-Kongress, Rostock, 23.7.2014   
26. Rupp R.: Neuroprothesen in der Querschnitt-Rehabilitation - praktische Erfahrungen aus der Anwendung implantierbarer und nichtinvasiver Lösungen, 48. Tagung der Deutschen Gesellschaft für Biomedizinische Technik (DGBMT), Hannover, 8.-10.10.2014   
27. Rupp R., Schweidler J., Schuld C.: ParaReg – Eine multizentrische Datenbank zur Dokumentation von Querschnittgelähmten mit einer Ateminsuffizienz, Treffen des AK Beatmung der DMGP, Heidelberg, 30.10.2014   
28. Rupp R.: Verlust der Handfunktion – was bietet die Technik ?, Deutscher Kongress für Orthopädie und Unfallchirurgie, Berlin, 28.-31.10.2014   
29. Franz S., Rohm M., Berberich M., Hug A., Weidner N., Rupp R.: Klinische Studie zur Überprüfung von Effektivität, Praktikabilität und Lebensqualität der Anwendung einer Greifneuroprothese durch Patienten mit zervikalem Querschnittsyndrom, 5. Jahrestagung DGNR und DGNKN, Singen, 04.12.-06.12.2014   
30. Rupp R., Rohm M., Schneiders M., Kreilinger A., Kaiser V., Weidner N., Müller-Putz G.R.: Nicht-invasive Brain-Computer Interfaces zur Kontrolle von Greifneuroprothesen für Hochquerschnittgelähmte – Ergebnisse des europäischen TOBI Projekts, 5. Jahrestagung DGNR und DGNKN, Singen, 04.12.-06.12.2014   
  
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31. Rupp R., Schmalfuß L., Tuga M., Kogut A., Hewitt M., Meincke J., Duttenhöfer W., Eck U., Mikut R., Reischl M., Liebetanz D.: TELMYOS – a telemetric wheelchair control interface based on the bilateral recording of myoelectric signals from ear muscles, 5th Conference on Technically Assisted Rehabilitation (TAR), Berlin, 12.03.-13.03.2015   
32. Rupp R., Franz S., Berberich M., Rohm M., Eck U., Weidner N.: Neuroprosthesis for grasp restoration in individuals with high spinal cord injury – lost in translation !?, 5th Conference on Technically Assisted Rehabilitation (TAR), Berlin, 12.03.-13.03.2015   
33. Rupp R.: Greifen und Gehen aus der Sicht des Ingenieurs, 4. Frankfurter Symposium Querschnittlähmung, BGU Frankfurt, 15.4.2015   
34. Rupp R.: Was wird Technisch in Zukunft möglich sein ?, Symposium „60 Jahre Querschnittgelähmtenzentrum Koblenz“, 18.4.2015   
35. Schuld C., Schließmann D., Schneiders S., RehaGait Study Group, Weidner N., Rupp R.: Watch your step – from instrumented gait analysis to real-time feedback therapy, 4th ISCoS and ASIA joint scientific meeting, Montréal, Kanada, 14.05.-16.05.2015   
36. Rupp R., Schließmann D., Schneiders M., Schuld C.: Realtime movement feedback therapy in gait rehabilitation, International Neurorehabilitation Symposium (INRS), Valencia, Spanien, 10.6.-12.6.2015   
37. Schuld C., Schließmann D., Schneiders M., Derlien S., Glöckner M., Gladow T., Weidner N., Rupp R.: Watch your step – from gait analysis to real-time movement feedback therapy, 9th World Congress of the International Society of Physical and Rehabilitation Medicine, Berlin, 19.-23.06.2015   
38. Rupp R.: Technological support for the rehabilitation after stroke and spinal cord injury, 1st Congress of the European Academy of Neurology, Berlin, 20.6.-23.6.2015   
39. Rupp R.: Updates on the ISNCSCI, 14th EMSCI annual meeting, Orthopädische Klinik Hessisch-Lichtenau, 24.6.2015   
40. Rupp R.: Elektrostimulation bei Querschnittlähmung - Ströme im Wechsel !, Keynote-Vortrag auf der 28. Jahrestagung der Deutschsprachigen Medizinischen Gesellschaft für Paraplegie (DMGP), Kassel, 25.06.-27.06.2015   
41. Rupp R.: Technically assisted neurorehabilitation after SCI – more high-tech for a better outcome ? Spinal Cord Injury & Tissue Regeneration Summit, Salzburg, Österreich, 5.11.2015   
  
2016   
42. Rupp R.: Von der Diagnostik zur Therapie – die Möglichkeiten von Echtzeit-Bewegungsfeedback in der Rehabilitation von Gangstörungen, Keynotevortrag auf dem 1. Kongress der Gesellschaft für die Analyse menschlicher Motorik und ihre klinische Anwendung (GAMMA), Wien, Österreich, 26.02.-27.02.2016   
43. Rupp R.: Bewegende Technik – Apparative Neurorehabilitation von Querschnittgelähmten, Wissenschaftliches Kolloquium der Medizinischen Fakultät der Universität Heidelberg, Heidelberg, 02.03.2016   
44. Rupp R., Hessing B., Rohm M., Schneiders M.: Current Status and next steps of WP3 and WP 7, General Meeting of the MoreGrasp Project, Glasgow, UK, 08.03.-10.03.2016   
45. Rupp R.: Echtzeitbewegungsfeedback bei inkomplett Querschnittgelähmten - die instrumentelle Ganganalyse als Therapeutikum, 60. Jahrestagung der Deutschen Gesellschaft für klinische Neurophysiologie und funktionelle Bildgebung (DGKN), 16.03.-19.03.2016   
46. Rupp R., Schmalfuß L., Tuga M., Kogut A., Hewitt M., Eck U., Mikut R., Reischl M., Liebetanz D.: TELMYOS – a feasibility study of a telemetric wheelchair control interface based on the bilateral recording of myoelectric signals from ear muscles, Annual Meeting of the American Spinal Injury Association, Philadelphia, USA, 14.04.-17.04.2016   
47. Rupp R.: Gerätegestützte Neurorehabilitation – Roboter ist nicht gleich Roboter ! OT World, Leipzig, 03.05.-06.05.2016   
48. Rupp R.: Rehabilitationstechnik bei Querschnittgelähmten– Was bringt die Zukunft ? OT World, Leipzig, 03.05.-06.05.2016   
49. Eck U., Kogut A., Tuga M., Doneit W., Schmalfuß L., Liebetanz D., Reischl M., Rupp R.: Steer by ear – Vergleichsstudie zur Steuerung eines Elektrorollstuhls mittels zweier oberflächlich gemessener Aktivierungsmuster der Ohrmuskulatur 29. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie (DMGP), Hamburg, 25.5.-28.5.2016   
50. Schuld C., Schweidler J., Tiedemann S., Ketter G., Michel F., Lustenberger H., Walter M., Hensel C., Hug A., Roch S., AK Beatmung, AK EMSCI, Liebscher T., Rupp R.: Die multizentrische, projektübergreifende ParaReg-Datenbank - von EMSCI über Beatmungsverläufe hin zum DMGP-Paraplegie-Register, 29. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie (DMGP), Hamburg, 25.5.-28.5.2016   
51. Rupp R.: Laudatio für den Ludwig Guttmann Preisträger der DMGP 2016, 29. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie (DMGP), Hamburg, 25.5.-28.5.2016   
52. Rupp R.: Functional electrical stimulation (FES) for grasping in individuals with high cervical spinal cord injury – lessons learned from working with end users, 6th International BCI Meeting, Asilomar Conference Center, Pacific Grove, California, USA, 31.05.-03.06.2016   
53. Rupp R.: 15 years of EMSCI – What makes EMSCI unique and why to continue ? 55th Annual Scientific Meeting of the International Spinal Cord Society, Wien, Österreich, 14.9.-16.9.2016   
54. Rupp R.: From gait analysis to locomotion therapy - possibilities of real-time movement feedback in the rehabilitation of gait disorders, Keynote Lecture at the 25th ESMAC (European Society for Movement Analysis in Adults and Children) annual meeting, Sevilla, Spanien, 29.09.-1.10.2016   
55. Rupp R., Schließmann D., Schuld C., Hofer E.P., Gerner H.J., Weidner N., Knestel M.: MoreGait – Studienergebnisse eines von inkomplett Querschnittgelähmten zu Hause durchgeführten robotischen Lokomotionstrainings, 121. Jahrestagung der Deutschen Gesellschaft für Physikalische Therapie und Rehabilitation, Giessen, 06.10.-08.10.2016   
56. Rupp R.: Noninvasive Hybrid Brain-Computer interfaces as individualized control interface of grasp neuroprosthesis, Össur and Otto Bock Treaty on Neural controlled Man-Machine Interface for Prosthetics, Reykjavik, Island, 29.10.2016   
57. Rupp R.: Current status of WP3 & WP7, Mid-Term Review Meeting of the MoreGrasp Project, Luxemburg, 16.11.2016   
58. Rupp R.: Roboter in der Rehabilitation – Kompensation oder Restauration ?, 6. Gemeinsame Jahrestagung der Deutschen Gesellschaft für Neurorehabilitation (DGNR) und der Deutschen Gesellschaft für Neurotraumatologie und Klinische Neurorehabilitation (DGNKN), Bonn-Bad Godesberg, 01.12.-03.12.2016   
  
2017   
59. Rupp R.: Handfester Nutzen oder Griff nach den Sternen? Möglichkeiten von Greifneuroprothesen bei Hoch-Querschnittgelähmten, Jahrestagung des NervClub, Heidelberg, 31.03.2017   
60. Rupp R.: Mensch-Maschine Schnittstellen, Festveranstaltung der Verleihung des Forschungsförderpreises der Deutschen Stiftung Querschnittlähmung, Heidelberg, 31.03.2017   
61. Rupp R., Schuld C., Weidner N., Koller R., Schubert M., Curt A.: The European Multicenter Study about Spinal Cord Injury – It’s all about networking !, iCord Symposium, Vancouver, Kanada, 06.04.-07.04.2017   
62. Rupp R., Rohm M., Huesing J., Lehmann M., Weidner N., Schleebusch T., Castelar C., Walter M., Habier A., Leonhaeuser D., Kowollik M., Leistner N., Grosse J., Kirschner-Hermanns R.: UroWatch – proof-of-concept of the feasibility of electrical impedance tomography (EIT) for noninvasive continuous bladder volume measurement in individuals with SCI, 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
63. Rupp R., Schuld C., EMSCI study group, Burns S., Walden K., Rick Hansen Institute: ISNCSCI computer algorithms, 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
64. Rupp R., ASIA International Standards Committee: International Standards Committee Update – New and Discussed Changes for the International Standards , 43rd Annual Meeting of the American Spinal Injury Association, Albuquerque, USA, 26.04.-29.04.2017   
65. Rupp R.: Patient Study and MoreGrasp neuroprosthesis, MoreGrasp OT Workshop, 9.5.2017   
66. Rupp R., Hessing B., Schneiders M.: Current Status and next steps of WP3 and WP 7, General Meeting of the MoreGrasp Project, Hamburg, 10.05.-11.05.2017   
67. Rupp R., Schuld C., Langpape A., Koller R., Mayer M., Schubert M., Ackermann C., van de Meent H., Mach O., Maier D., Abel R., Curt A., Weidner N.: Changes in the EMSCI certification and proposed ISNCSCI changes, 17th Annual EMSCI Meeting, Ulm, 17.5.2017   
68. Rupp R., Schneiders M., Hessing B., Kogut A., Weidner N.,di Sciascio C., Luzhnica G., Veas E., Ramsay A., Murray Smith R., Schwarz A., Ofner P., Müller-Putz G.R.: Denken, um zu (be-)greifen – Evaluierung der intuitiven Brain-Computer Interface gesteuerten sensiblen und motorischen Greifneuroprothese des europäischen MoreGrasp-Projekts, 30. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie, Ulm, 18.05.-20.05.2017   
69. Rupp R.: Laudatio für den Ludwig Guttmann Preisträger der DMGP 2017, 30. Jahrestagung der Deutschsprachigen medizinischen Gesellschaft für Paraplegie (DMGP), Ulm, 18.05.-20.05.2017   
70. Rupp R., Schneiders M., Hessing B., Murray-Smith R., Ramsay A., Luzhnica G., Veas E., Schwarz A., Pereira J., Ofner P., Pinegger A., Müller-Putz G.: MoreGrasp – BCI-controlled sensory and motor grasp neuroprosthesis for individuals with high spinal cord injury, Joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), Tampere, Finland, 11.06.-15.06.2017   
71. Rupp R.: Wofür baucht die motorische Rehabilitation technische Hilfen, Update Neurorehabilitation, Schmieder Klinik, Allensbach, 15.07.2017   
72. Rupp R., Schneiders M., Hessing B., Jersch P., Kogut A., Bertram B., Ramsay A., Murray-Smith R., Müller-Putz G.: The EEG-controlled MoreGrasp grasp neuroprosthesis for individuals with high spinal cord injury – multipad electrodes for screening and closed-loop grasp pattern control, 21st Annual Meeting of the International Funtional Electrical Stimulation Society (IFESS), London, United Kingdom, 17.07.-20.07.2017   
  
Project grants (last 5 years)   
„European Multicenter Study about Spinal Cord Injury“ (2001 – today)   
Role: Co-PI   
Sponsors: International Foundation for Research in Paraplegia (IFP), Zuerich, Switzerland   
Wings for Life (WfL), Salzburg, Austria   
German foundation of paraplegia (DSQ)   
  
„TOBI – Tools for Brain-Computer Interaction“ (2008 – 2013)   
Role: WP leader   
Sponsor: European Commission (EC), FP7-224631   
  
„UroWatch – Development and clinical evaluation of a 3-D bladder volume estimation device on the basis of impedance measurements“ (2012 – 2015)   
Role: Co-PI   
Sponsor: German Federal Ministry for Research and Education (BMBF), 01EZ1128B   
  
„TELMYOS – A telemetric myoelectric ear muscle activity recording system for control of assistive devices” (2012 – 2015)   
Sponsor: German Federal Ministry for Research and Education (BMBF), 01EZ1122B   
  
„MoreGait – Development of a training device for a physiological locomotion training at home“ (2012 – 2015)   
Role: Co-PI   
Sponsor: German Federal Ministry for economy and energy (BMWi), KF2906701NT1   
  
„RehaGait – Development of a mobile feedback-assisted therapy system for rehabilitation of gait abnormalities“ (2013 – 2016)   
Role: Co-PI   
Sponsor: German Federal Ministry for economy and energy (BMWi), KF2906702KJ2   
  
“MoreGrasp - Restoration of upper limb function in individuals with high spinal cord injury by multimodal neuroprostheses for interaction in daily activities” (2015 – 2018)   
Role: 2x WP-leader   
Sponsor: European Comission (EC), FP8-643955   
  
“SCI-walker - a novel mobile, user-compliant, motorized body weight support device for safe overground locomotion training” (2015 – 2016)   
Role: PI   
Sponsor: Promobilia Stiftung, Stockholm, Schweden   
  
„Innovation Cluster– INTAKT“ (2016 – 2021)   
Role: Co-PI   
Sponsor: German Federal Ministry for Research and Education(BMBF), FKZ: 16SV7639

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**Impact of Barriers and Facilitators on Travel Needs Satisfaction of People with SCI**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Shu Cole, Ph.D.***  
Indiana University

**CV:**  
SHU TIAN COLE   
  
CURRENT POSITION   
Associate Professor Aug 2006 – present   
Associate Chair for Research and Graduate Studies Aug 2011 – May 2014   
Tourism Option Coordinator Jan 2007 – Jul 2011   
Member of Doctoral Faculty   
Dept. of Recreation, Park, and Tourism Studies, Indiana University   
  
REFEREED PUBLICATIONS IN PAST FIVE YEARS   
Zhang, Y., Cole, S. T., Ricci, P., Gao, J. (accepted). Context-based Self-determination Facilitation of Leisure Travel Pursuits among People with Mobility Challenges. Journal of Travel Research.   
  
Zhao, P.H., Yu, C.P., Cole, S.T., Chancellor, H.C. (in press). Resident Support for Tourism Development: Perceived Tourism Impacts and Community Quality of Life Perspective. Journal of Destination Marketing & Management.   
  
Zhang, Y., Cole, S., Hirt, E., & Bilgihan A. (2017). Self-determined travel facilitation with mental construal priming. Tourism Management, 61, 472-483.   
  
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Zhang, Y., Cole, S., & Chancellor, H.C. (2014). Facilitation of the SUS-TAS application with Parsimony, predictive validity, and global interpretation examination. Journal of Travel Research, 1-14, DOI: 10.1177/0047287514535848.   
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Shi, L., Cole, S.T., & Chancellor, H.C. (2012). Exploring leisure travel motivations of travelers with acquired mobility impairments. Tourism Management, 33, 228-231.   
  
BOOK CHAPTERS IN PAST FIVE YEARS   
Austin, D.R. & Cole, S.T. (2013). Inclusive Tourism. In D. R. Austin, & Y. Lee (Eds.), Inclusive and Special Recreation: Opportunities for Persons from Diverse Populations to Flourish, (p.301-314). Urbana, IL: Sagamore Publishing.   
  
REFEREED PROCEEDING ARTICLES IN PAST FIVE YEARS   
Cole, S., Hoback, N.G., & Whiteneck, G. (2016). Travel service gaps for wheelchair users. Proceedings of the annual international conference of Travel and Tourism Research Association: Advancing Tourism Research Globally. 8 pages. Vail, CO, June 14-16, 2016.   
  
Ye, Z., & Cole, S. (2012). Modeling International Demand for Hong Kong Tourism with Panel Data Analysis. Proceeding of the 17th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Auburn, AL. January 2012   
• This paper won the Conference Best Paper Award sponsored by Asia Pacific Journal of Tourism Research.   
  
REFEREED ABSTRACTS/PRESENTATIONS   
Hoback, N., Bas, O., Cole, S.T., Charlifue, S., & Whiteneck, G. (2017). Comparing travel barrier perceptions of persons with SCI and caregivers. Presentation made at the annual conference of the Academy of Spinal Cord Injury Professionals. Denver, CO, September 7, 2017.   
  
Cole, S.T., Hoback, N., & Whiteneck, G. (2017). Do barriers and facilitators predict travel participation? Presentation made at the annual conference of the Academy of Spinal Cord Injury Professionals. Denver, CO, September 5, 2017.   
  
Kiratli, J., Brose, S., Cole, S. & Sorenson, M. (2017). Highs and Lows of Grantsmanship: What You Need for the Climb. ARC workshop conducted at the annual conference of the Academy of Spinal Cord Injury Professionals. Denver, CO, September 7, 2017.   
  
Bas, O., Holback, N., Cole, S. T., Charlifue, S., & Whiteneck, G. (2017). Caregivers’ Perspectives on Travel Barriers for People with Spinal Cord Injury. Presentation made at the American Spinal Injury Association annual conference, Albuquerque, NM, United States, April 27, 2017.   
  
Cole, S. T., Kang, S., Whiteneck, G., Zhao, H., Zhang, Y (2017). Facilitators of and barriers to travel for people with spinal cord injury. Presentation made at the American Spinal Injury Association annual conference, Albuquerque, NM, United States, April 27, 2017.   
  
Cole, S., Whiteneck, G., Kilictepe, S., Wang, W.X., Wen X., & Hoback, N.G. (2016). Travel barriers for people living with spinal cord injury. Presentation made at the American Spinal Injury Association’s annual conference in Philadelphia, PA, April 13-16, 2016.   
  
Cole, S., Hoback, N.G., & Whiteneck, G. (2016). Travel service gaps for wheelchair users. Presentation made at the annual conference of Travel and Tourism Research Association in Vail, CO, June 14-16, 2016.   
  
Cole, S., Whiteneck, G., & Hoback, N.G. (2016). Stakeholders’ perceptions of travel barriers for people with SCI. Presentation made at the annual conference of Academy of Spinal Cord Injury Professionals in Nashville, TN, September 4-7, 2016.   
  
Kang, S., Graduate (Presenter), Cole, S. T., Huber, L., McCormick, B., Jamieson, L. (20160 "Competitive Sports Event Commitment of National Senior Games Participants", Paper presented at the 2016 Global Event Congress at IUPUI, Indianapolis, IN, United States. July, 2016.   
  
Cole, S., Kang, S.G., & Yoon, H.J. (2015). The relationship between travel barriers and leisure travel participation of persons with mobility impairment. Poster presentation at Academy of Spinal Cord Injury Professionals 2015 Educational Conference in New Orleans, LA, September 6-9, 2015.   
  
Cole, S., Zhang, Y., Hu, C.M., & Wang, W. (2015). Impact of perceived benefits of leisure travel on overall life satisfaction of people with mobility impairment. Poster presentation at the American Public Health Association’s annual conference in Chicago, IL, November 7-11, 2015.   
  
Kang, S.G., Huber, L., & Cole, S. (2015). The motivation and benefits of LTPA based on community-based senior games: A social ecological approach. Poster presentation at the American Public Health Association’s annual conference in Chicago, IL, November 7-11, 2015.   
  
Zhang, Y. & Cole, S. (2015). Mental construal priming as a facilitator of leisure travel among people with mobility challenges. Paper presented at the Travel and Tourism Research Association’s annual international conference, June 15-17, Portland, OR.   
  
Wang, W., & Cole, S. (2015). Measuring air travelers’ innovativeness. Paper presented at the Travel and Tourism Research Association’s annual international conference, June 15-17, Portland, OR.   
  
Kang, S.G., Kim, H.Y., & Cole, S. (2015). The satisfaction and improvement in event destination through caregivers’ perspective for traveling with people with disabilities. Presentation made at the Tourism Sciences Society of Korea (TOSOK) in South Korea from July 1-3, 2015.   
  
Hu, C.M., & Cole, S. (2015). The role of destination knowledge and motivation of learning destination Information on the impact of perception for new travel destination attributes. Presented in 47th TTRA annual international conference, June 15-17, Portland, USA.   
  
Cole, S., Charlifue, S., Whiteneck, G., & Zhang, Y. (2014). Role of travel in the lives of people after spinal cord injury. Poster presentation at the 142n Annual Meeting & Expo of American Public Health Association in New Orleans, LA, November 2014.   
  
Cole, S., Zhang, Y., & Wang, W. (2014). Impact of environmental factors on participation of people with mobility impairments in travel: A self-determination perspective. Presentation at the 142n Annual Meeting & Expo of American Public Health Association in New Orleans, LA, November 2014.   
  
Kang, S.G., Wang, W., & Cole, S. (2014). Associated characteristics of serious leisure among National Senior Games participants. Poster presentation at the 142n Annual Meeting & Expo of American Public Health Association in New Orleans, LA, November 2014.   
  
Kang, S.G., Wang, W., & Cole, S. (2014). Serious leisure with an empirical study by National Senior Games. Presentation at the National Recreation and Park Association’s conference in Charlotte, NC, October 2014.   
  
Cole, S. (2014). Travelers with mobility impairments: Profile, motivation and experience. Presentation at the World Leisure Congress, Mobil, AL, September 2014.   
  
Hu, C.M., & Cole, S. (2014). The analysis of expenditure patterns of sport tourists with different types of fan attachment in mega sport event. Presentation at the World Leisure Congress, Mobil, AL, September 2014.   
  
Yu, C.P., Cole, S.T., & Chancellor, H.C. (2013). Assessing community quality of life in the context of tourism development: Tourism-Related Community Quality of Life (TCQOL) Approach. Competitive paper presented at BEST EN Think Tank XIII at Kuala Lumpur, Malaysia, June 2013.   
  
Wang, W., & Cole, S. (2013). A case study of Beijing Capital International airport services for passengers with mobility impairments: Perceptions of airline and airport staff. Paper presented at 2013 Travel and Tourism Research Association Annual Conference. Kansas City, MO. June 2013.   
  
Hu, C.M. & Cole, S.T. (2013). Destination image of attendees to a mega-event. Paper presented at 2013 Travel and Tourism Research Association Annual Conference. Kansas City, MO. June 2013   
  
Zhang, Y. & Cole, S. T. (2013). The factor structure of hospitality satisfaction among travelers with mobility impairments: An integration of content analysis and the three factor theory of customer satisfaction. Paper presented at 2013 Travel and Tourism Research Association Annual Conference. Kansas City, MO. June 2013   
  
Kang, S., Wang, W., & Cole, S. (2013). Using social ecological factors to measure the social benefits of leisure activity on senior adults’ Quality of Life: A validation in 2013 national Senior Games. Presentation at the Student Colloquium of 2013 Travel and Tourism Research Association Annual Conference. Kansas City, MO. June 2013   
  
Kang, S., & Cole, S.T. (2013). The Mediating Effect of Satisfaction on the Relationship between Service Quality and WOM Intention for EXPO 2012 Yeosu Korea: A Caregivers’ Perspective. Presentation at the Graduate Student Conference. Seattle, WA. January, 2013.   
  
Wang, W., & Cole, S. (2012). A constant comparative analysis to identify onboard service needs and expectations of air travelers with mobility impairments: Perceptions of flight attendants. Extended abstract submitted to the annual conference of Travel and Tourism Research Association. Virginia Beach, VA, June.   
  
Zhang, Y., Park, Y.W., & Cole, S. (2012). Factors influential to tourism experiences of people with mobility impairments. Extended abstract submitted to the annual conference of Travel and Tourism Research Association. Virginia Beach, VA, June.   
  
Cole, S. (2012). Accessible Travel and Tourism: Dream or Reality? Presentation at the 27th Pacific Rim International Conference on Disability and Diversity. Honolulu, HI, April.   
  
Wang, W., & Cole, S. (2012). A qualitative approach to understand service challenges for people with reduced mobility: Perceptions among flight attendants. Presentation at the 17th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Auburn, AL. January 2012.   
  
Ye, Z., & Cole, S. (2012). Modeling International Demand for Hong Kong Tourism with Panel Data Analysis. Paper presented at the 17th Annual Graduate Education and Graduate Student Research Conference in Hospitality and Tourism, Auburn, AL. January 2012.   
• This paper won the Best Paper Award of the conference.   
  
FUNDED GRANTS   
PI, Innovation in lodging industry information on Accessibility. A Quality of Life project funded by Craig H. Neilsen Foundation. 2016-2017.   
  
Co-Investigator, with Laurel Van Horn, PI, Open Doors Organization, proposer. Innovative solutions to facilitate accessibility for airport travelers with disabilities. Airport Council Research Programs funded by the Transportation Research Board of the National Academies. 2016-2018.   
  
PI, A Self-Determination perspective on barriers to and facilitators of travel after spinal cord injury. Psychological Research Grant, funded by Craig H. Neilsen Foundation, 2015-2018.   
  
PI, Calibrating the self-determination model of travel participation of people with mobility impairment. RPTS LRI, Indiana University, FY 2015-2016.   
  
PI, Chair’s Multi-disciplinary Research Funds support revision of a grant proposal to NIDRR of Department of Education, RPTS, Indiana University, 2014.   
  
PI. School of Public Health Associate Dean’s Seed Fund to support revision of a grant proposal to NIDRR of Department of Education, Indiana University, 2014   
  
PI. Keeping Active through Leisure Travel after Spinal Cord Injury: A Self-Determination Model of Antecedents and Consequences of Leisure Travel Motivation. RPTS Leisure Research Institute, Indiana University, 2013.   
  
PI, with co-investigators Charles Chancellor, Wei Wang and Ye Zhang. The 2013 Study of Tourism's Economic Impact in Monroe County, Indiana. Bloomington CVB, 2012.   
  
Co-PI with Charles Chancellor, and co-investigators of Bill Ramos and Yaling Chen. Great Lakes Park Training Institute, Small Grant Research Program, Columbus People Trails user survey of spring 2013. $4,000, 2012.   
  
  
HONORS AND AWARDS   
Outstanding Jr. Faculty Teaching Award, College of Agriculture, Food and Natural Resources, University of Missouri. 2006.   
Scholarship for National Extension Conference, North Central Region Center for Rural Development. 2004   
Teaching Scholars, College of Agriculture, Food and Natural Resources, University of Missouri. 2003   
William B. Keeling Dissertation Award - Meritorious Award, Travel and Tourism Research Association, 1999   
Tom & Ruth River’s International Program Scholarship, World Leisure and Recreation Association, 1996   
J. Desmond Slattery Marketing Award, Travel and Tourism Research Association, 1995   
Best Student Paper Award, Travel and Tourism Research Association -- Texas Chapter, 1995   
International Education Study Grant, Texas A&M University, 1996   
  
CURRENT NATIONAL SERVICE & EDITORSHIP   
Research Co-Chair of the Education Network   
National Recreation & Parks Association 2016 – 2018   
  
ASCIP Research Committee member   
Academy of Spinal Cord Injury Processionals, 2016 – present   
  
Editorial Board Member, Journal of Travel Research 2012 – present   
  
Editorial Board Member, China Tourism Research 2012 – present   
  
Editorial Board Member, Tourism Review International 2014 – present

***Noah Holback,***   
Indiana University

*(no CV uploaded)*

***Sangguk Kang,***   
Indiana University

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***Gale Whiteneck, PhD***  
Craig Hospital

*(no CV uploaded)*

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**Electrical Nerve Block for Control of Pain and Spasticity in Spinal Cord Injury**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Kevin Kilgore, PhD***  
Metrohealth Medical Center

**CV:**  
NAME: Kevin L. Kilgore   
POSITION TITLE: Professor of Orthopaedics   
EDUCATION/TRAINING   
INSTITUTION AND LOCATION DEGREE   
(if applicable)   
Completion Date   
MM/YYYY   
FIELD OF STUDY   
  
University of Iowa, Iowa City, IA B.S. 1983 Biomedical Engineering   
Case Western Reserve University, Cleveland, OH M.S. 1987 Biomedical Engineering   
Case Western Reserve University, Cleveland, OH Ph.D. 1991 Biomedical Engineering   
  
A. Personal Statement   
I have over 30 years of experience with the design, implementation and clinical application of implantable neuroprosthetic and neuromodulation systems. I have performed both animal and human studies related to the application of electrical fields to neural tissue for the purpose of controlling action potentials – either by activation or suppression (conduction block). The initial focus of my career was in the application of functional electrical stimulation (FES) for individuals with spinal cord injury for upper extremity function. In the early 1990s, I was part of the Steering Committee that planned and directed the Freehand multi-center clinical trial that began in 1992 and continued until FDA approval was obtained in 1997. From 2003-2013 we conducted a clinical study of the first implanted neuroprosthesis with myoelectric control for cervical SCI. I have participated in over 50 surgical implantation procedures for neuroprosthetic systems.   
Over the past 15 years I have worked closely with Dr. Peckham and Mr. Brian Smith, Chief Implant Engineer, in the development of a new approach to implanted neuroprosthetic design, the Networked Neuroprosthetic (NNP) System. We believe that the NNP System is a revolutionary step in the design of implantable neuroprosthetics. It is based on a completely modular architecture and utilizes common network communication protocols to establish an orchestrated operation of the entire system. We believe that this system is absolutely critical for the next generation of motor neuroprostheses for diseases such as spinal cord injury, stroke, multiple sclerosis and other disabilities. Clinical feasibility study of this system began with the first human implant in early 2016.   
My work throughout my career has been highly collaborative. As part of the Cleveland FES Center, I work daily with other investigators, physicians, therapists, nurses and rehabilitation engineers. We evaluate SCI patients for potential benefit from both clinical and research interventions. My staff is highly experienced in the implementation of neuroprostheses for individuals with cervical SCI, including Anne Bryden, occupational therapist, and Ron Hart, a rehabilitation engineer, both of whom have over 20 years of experience. This project is a key component of our broad goal of improving hand function in SCI through all means possible and disseminating successful technologies as broadly as possible to the SCI community.   
Peckham PH, Kilgore KL, Challenges and opportunities in restoring function after paralysis, IEEE Trans. BME, 60(3):602-609, 2013.   
\*\*\*Kilgore KL, Hoyen HA, Bryden AM, Hart RL, Keith MW, Peckham PH, Montague FW, Sams CJ, Bhadra N, An Implanted Upper Extremity Neuroprosthesis Utilizing Myoelectric Control, Journal of Hand Surgery, 33A:539-550, 2008. NIHMSID 125325.   
\*\*Peckham PH, Keith MW, Kilgore KL, Grill JH, Wuolle KS, Thrope GB, Gorman P, Hobby J, Mulcahey MJ, Carroll S, Hentz V, Wiegner A., Efficacy of an Implanted Neuroprosthesis for Restoring Hand Grasp in Tetraplegia: A Multicenter Study, Arch. Physical Medicine and Rehabilitation, 82:1380-8, 2001.   
\*\*\*\*Kilgore K.L., Peckham P.H., Keith M.W., Thrope G.B., Wuolle K.S., Bryden A.S., Hart R.L.: An implanted upper extremity neuroprosthesis: A five patient review. J B Joint Surg, 79A(4):533-541, 1997.   
\*\* Received the "Sidney and Elizabeth Licht Award for Excellence in Scientific Writing" from the American Congress of Rehabilitation Medicine, October 2002.   
\*\*\* Received the “Southern California Society for Surgery of the Hand Journal Club Award” as the most likely to alter the future practice of hand surgery, July 2009.   
\*\*\*\* Identified as one of the top 50 most-cited articles on hand surgery in the last 20-plus years [To et al., J Hand Surg, 2013].   
  
B. Positions and Honors   
Positions and Employment   
1983-1991 Graduate Research Assistant, Case Western Reserve University, Cleveland, Ohio   
1988-1991 Biomedical Engineer, Medical Research, Cleveland Veterans Affairs   
Medical Center, Cleveland, Ohio   
1991-1992 Research Associate, Case Western Reserve University, Cleveland, Ohio   
1992-1994 Biomedical Engineer, Research Service, Louis Stokes Cleveland Department of Veterans Affairs Medical Center, Cleveland, Ohio   
1992-Pres Adjunct Assistant Professor, Dept. Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio   
1994-2015 Program Manager, Dept. Orthopaedics, MetroHealth Medical Center, Cleveland, Ohio   
1998-Pres Biomedical Engineer, Research Service, Louis Stokes Cleveland Department of Veterans Affairs Medical Center, Cleveland, Ohio   
2005-2015 Clinical Instructor, Dept. Orthopaedics, Case Western Reserve University School of Medicine   
2015-Pres Professor, Dept. Orthopaedics, Case Western Reserve University School of Medicine and MetroHealth Medical Center, Cleveland, Ohio   
  
Other Experience and Professional Membership   
NIH Special Emphasis Panel SPARC Pre-Clinical Development...New Market Indications ETTN-B(55), July 2016; NIH-NINDS Research Program Award R35 Review Panel: ZNS SRB N(11), March, 2016; National Institutes of Health Special Emphasis Panel: ZNS1 SRB-G (02), BRAIN: Technologies for Large - Scale Recording, July, 2015; Department of Veterans Affairs Rehabilitation Research and Development Service Study Section, Small Projects in Rehabilitation Research (SPiRE), May 2015; National Institutes of Health Special Emphasis Panel: ZNS1 SRB-G 77, BRAIN: Technologies for Large - Scale Recording, July, 2014; National Institutes of Health Special Emphasis Panel/Scientific Review Group 2013/10 ZNS1 SRB-N (04), June, 2013; National Institutes of Health Study Section Bioengineering of Neuroscience, Vision and Low Vision Technologies (BNVT), May 2013; Department of Veterans Affairs Merit Review Study Section, Aging & Neurodegenerative Diseases Panel, August 2010; National Institutes of Health Study Section Neurotechnology (NT), June 2010, February 2011; National Institutes of Health Study Section ETTN B(80), June 2010, February 2011; National Institutes of Health Study Section ZRG ETTN F(02)M, June 2010 (Co-chair); Department of Veterans Affairs Merit Review Study Section, Orthopaedics, March 2007, August 2007, February 2008, August 2008, March 2009, March 2010; National Institutes of Health Study Section Neurotechnology (ZRG1 MDCN-G (02) M), March 2008; Department of Veterans Affairs Merit Review Study Section, Prosthetics, August 2004   
  
  
C. Contribution to Science   
Full publication list can be found at: https://scholar.google.com/citations?user=LCFOxJIAAAAJ&hl=en   
  
1. Clinical Feasibility Study of an Implanted Neuroprosthesis for Upper Extremity Function in Spinal Cord Injury (SCI)   
Historical Background. Over the past 30+ years, I have been working directly with the implementation of functional electrical stimulation (FES) neuroprosthetic systems to provide hand function for SCI individuals. The neuroprosthesis consists of an implanted stimulator that is controlled by the user through the generation of a myoelectric signal from one or more muscles under voluntary control, as shown in the accompanying figure. Central Findings. These neuroprostheses provide improved hand function and allow the subjects to be more independent in performing various activities of daily living, including the ability to eat, write, brush teeth, perform office tasks, embroidery, and use a cell phone. The independence gained through the use of the neuroprosthesis cannot be achieved through any other means. Application of Findings. Significant effort has been applied to transfer our neuroprosthetic systems into regular clinical practice. A multi-center trial was conducted that ultimately resulted in marketing approval by the FDA. We have now developed a non-profit/for-profit model designed to ensure the continued availability of this technology to orphan disease populations such as SCI. Role. I lead the research team that implements the neuroprosthesis with each patient, beginning with initial screening through long-term follow-up. In the early 1990s, I was part of the Steering Committee that planned and directed the Freehand multi-center clinical trial that began in 1992 and continued until FDA approval was obtained in 1997. I was involved in the planning, organization and presentation of multiple training sessions during the 1990s. In 2003 we began a clinical trial of the world’s first implanted neuroprosthesis with myoelectric control. I have participated in over 50 surgical implantation procedures for neuroprosthetic systems.   
Ho CH, Triolo RJ, Elias AL, Kilgore KL, DiMarco AF, Bogie K, Vette AH, Audu ML, Kobetic R, Chang SR, Chan KM, Dukelow S, Bourbeau DJ, Brose SW, Gustafson KJ, Kiss ZHT, Mushahwar VK. Functional Electrical Stimulation and Spinal Cord Injury. Physical Medicine and Rehabilitation Clinics of North America. 25(3):631-654, 2014.   
Kilgore KL, Hoyen HA, Bryden AM, Hart RL, Keith MW, Peckham PH, Montague FW, Sams CJ, Bhadra N, An Implanted Upper Extremity Neuroprosthesis Utilizing Myoelectric Control, Journal of Hand Surgery, 33A:539-550, 2008. NIHMSID 125325.   
Kilgore KL, Peckham PH, Keith MW, Montague FW, Hart RL, Gazdik MM, Bryden AM, Snyder SA, Stage TG. The durability of implanted electrodes and leads in upper extremity neuroprostheses. J. Rehab Research and Development 40(6):457-468, 2003.   
Kilgore K.L., Peckham P.H., Keith M.W., Thrope G.B., Wuolle K.S., Bryden A.S., Hart R.L.: An implanted upper extremity neuroprosthesis: A five patient review. J B Joint Surg, 79A(4):533-541, 1997.   
  
2. Design and Development of a Modular Network of Implantable Components – the “Networked Neuroprosthesis”   
Historical Background. Over the past decade I have worked closely with Dr. Peckham and Mr. Brian Smith, Chief Implant Engineer, in the development of a new approach to implanted neuroprosthetic design, the Networked Neuroprosthetic (NNP) System. The NNP System is a revolutionary step in the design of implantable neuroprosthetics. It is based on a completely modular architecture and utilizes common network communication protocols to establish an orchestrated operation of the entire system. It is shown schematically in the accompanying figure. Central Findings. This system is absolutely critical for the next generation of motor neuroprostheses for diseases such as spinal cord injury, stroke, multiple sclerosis and other disabilities. Application of Findings. We have now received the first Investigational Device Exemption for the NNP and anticipate the first human application (in SCI) of this system in the fall of 2015. Role. Inventor and PI or Co-inv of all grants developing this system over the past 15 years and have helped lead the engineering design team, with a focus on the clinical impact.   
Peckham PH, Kilgore KL, Challenges and opportunities in restoring function after paralysis, IEEE Trans. BME, 60(3):602-609, 2013.   
Kilgore KL, Sensors for motor neuroprostheses, In A. Inmann and D. Hodgins, (eds.): Intelligent implantable sensor systems for medical applications, Woodhead Publishing, Cambridge, UK, 2013.   
US Patent No. US 7,260,436 - “Implantable Networked Neural System”   
Inventors: Kevin Kilgore, Hunter Peckham, Tim Crish, Brian Smith; Issued: 8/21/2007   
US Patent No. US 8,768,482 – “Neural Prosthesis”   
Inventors: Kevin Kilgore, Hunter Peckham, Tim Crish, Brian Smith; Issued: 7/1/2014   
  
3. Kilohertz Frequency Electrical Nerve Block   
Historical Background. I became interested in nerve conduction block as I sought to apply our technology to individuals with stroke and cerebral palsy, where the spasticity that is common in these conditions is very problematic for FES applications. Through discussions with colleagues and a review of the literature, I realized that the use of kilohertz frequency alternating current (KHFAC) appeared to have the characteristics of an excellent nerve block for these applications, but the existing scientific literature was very weak. After gaining initial R01 funding in this work in 2000, I was joined by Dr. Niloy Bhadra, who explored this area with me as his Ph.D. project in Biomedical Engineering. Central Findings. KHFAC can produce a quickly initiated and rapidly reversible nerve conduction block, as shown in the accompanying figure. We have demonstrated this effect in multiple mammalian models. KHFAC had significant potential for use in the treatment of a variety of diseases beyond our initial target of muscle spasticity, particularly chronic pain. Application of Findings. Through the dissemination of our results and through technology transfer, KHFAC has become used in a variety of clinical applications, including obesity treatment (vagal nerve block), amputee pain treatment (amputee block), and spinal cord stimulation (SCS). Unfortunately, there is currently an apparent lack of knowledge of the unique features of KHFAC in the medical device industry, and this has resulted in conflicting reports of both success and failure regarding the use of KHFAC in SCS. We are finding that the information reported in the literature frequently ignores a number of critical factors related to the delivery of KHFAC to the spinal cord, and therefore the reports in the literature provide very little insight regarding the mechanisms of this new modality. We are currently working to address this knowledge gap. Role. Inventor and Principal Investigator.   
Kilgore KL, Bhadra N, Nerve conduction block utilizing high-frequency alternating current, Medical and Biological Engineering and Computing, 42, 394-406, 2004.   
Bhadra N, Kilgore KL, High-frequency electrical conduction block of mammalian peripheral motor nerve, Muscle and Nerve, 32, 782-790, 2005.   
Kilgore KL, Bhadra N, Reversible nerve conduction block using kilohertz frequency alternating current, Neuromodulation, 17 (3), 242 -55, 2013.   
US Patent No. US 7,389,145 – “Systems and Methods for Reversibly Blocking Nerve Activity"   
Inventors: Kevin Kilgore, Warren Grill, Cameron McIntyre, J. Thomas Mortimer; Issued: 6/17/2008   
  
4. Charge-Balanced Direct Current (CBDC) Electrical Nerve Block   
Historical Background. Although it has been known that direct current (DC) could be used to block nerve conduction, it has not been practical to use this approach due to the irreversible chemical reactions at the electrode. Our innovative concept was to consider whether high charge capacity materials, such as platinum-black, iridium oxide, and carbon could be used to produce a “safe” DC block. Central Findings. As shown in the accompanying figure, we have developed a charge-balanced waveform that allows for up ten seconds of DC block. We have been able to repeatedly deliver this waveform for up to six hours in an acute rat preparation without nerve or electrode damage. We are now preparing to test this approach in chronic in-vivo tests. Application of Findings. CBDC has some potential advantages over KHFAC nerve block, including the fact that the block can be generated without producing any onset activity and the potential for the use of a wider variety of electrode designs, thus simplifying clinical implementation. Role. Inventor and Principal Investigator.   
Bhadra N, Kilgore KL, Direct current electrical conduction block of peripheral nerve, IEEE Transactions on Neural Systems and Rehabilitation Engineering, 12, 313-324, 2004.   
Vrabec T, Wainright J, Bhadra N, Bhadra N, Kilgore K, Use of High Surface Area Electrodes for Safe Delivery of Direct Current for Nerve Conduction Block, ECS Trans. 50(28): 31-37, 2013.   
Franke M, Vrabec T, Wainright J, Bhadra N, Bhadra N, Kilgore KL. Combined KHFAC+DC nerve block without onset or reduced nerve conductivity after block. J Neural Engineering, 11(5):056012, 2014.   
Vrabec TL, Bhadra N, Wainright JS, Bhadra N, Franke M, Kilgore KL. Characterization of high capacitance electrodes for the application of direct current electrical nerve block. Med & Biol Eng & Comput, 54(1): 191-203, 2016.   
Vrabec T, Bhadra N, Van Acker G, Bhadra N, Kilgore K. Continuous direct current nerve block using multi-contact high capacitance electrodes. IEEE Trans Neural Syst Rehabil Eng, Jul 9 (Epub), 2016.   
  
  
5. Below-injury Control Sources for Cervical Spinal Cord Injury   
Historical Background. Multiple methods of control for neuroprosthetic systems have been proposed, but we have found that myoelectric control is universally superior to other forms of control. It is easy to customize myoelectric control to the physiology and needs of each individual patient. It is relatively easy to implement in an implanted system. We have now discovered that even SCI subjects who were classified as neurologically complete can often generate myoelectric signals in their lower leg muscles. Central Findings. The myoelectric signals we obtain in the lower leg of complete cervical SCI subjects under direct voluntary control. In most cases, no visible contraction can be identified, and thus these are sub-clinical findings. However, the signal is sufficiently robust to be used as a control source for neuroprosthetic systems. Application of Findings. Our clinical studies demonstrate that subjects can utilize this form of control to gain increased independence in daily activities. I anticipate that myoelectric control will be enhanced with other control inputs (such as joint position, eye gaze, nerve signals and eventually even cortical signals), but I expect myoelectric control to remain a part of these systems for the foreseeable future. Role. Principal Investigator and Co-investigator.   
Moss CW, Kilgore KL, Peckham PH. Training to improve volitional muscle activity in clinically paralyzed muscles for neuroprosthesis control. Conf Proc IEEE Eng Med Biol Soc. 2011;2011:5794-7. doi: 10.1109/IEMBS.2011.6091434.   
Moss CW, Kilgore KL, Peckham, PH, A novel command signal for motor neuroprosthetic control, Neural Rehabilitation and Neural Repair, 2011 Nov-Dec; 25(9):847-54.   
  
D. Research Support   
Ongoing Research Support   
R01-NS-089530 Kilgore (PI) 09/1/2015-06/30/2019   
“Kilohertz Frequency Alternating Current Spinal Cord Stimulation for Chronic Pain Relief”   
The goal of this project is to experimentally determine the mechanism of action of kilohertz frequency waveforms applied to the spinal cord for pain relief. The project includes development of new technologies and approaches to spinal cord stimulation and block.   
  
I01-RX-001804 – VA RRD Kilgore (PI) 05/01/2015-04/30/2019   
“Whole-body Neuroprosthetic Approach for Incomplete Cervical Spinal Cord Injury”   
Evaluation of a fully implanted neuroprosthesis for incomplete spinal cord injury, including developing the screening methods and outcome measures to perform valid clinical studies in this population.   
  
USAMRAA-SCIRP Peckham (PI) 09/30/2014-09/29/2017   
“Efficacy Study of a Fully Implanted Neuroprosthesis for Functional Benefit to Individuals with Tetraplegia”   
Clinical trial to evaluate the efficacy of a networked neuroprosthesis for hand function in spinal cord injury.   
Role: Co-Investigator   
  
Wallace H. Coulter Foundation Bhadra (PI) 09/01/2015-08/31/2016   
“Evaluation of a Percutaneous Electrode for Direct Current Nerve Block”   
Chronic test of direct current electrical nerve block in rats.   
Role: Co-Investigator   
  
U01 NS-069517 Peckham (PI) 06/01/2010-05/31/2017   
“Multi-functional Neuroprosthetic System for Restoration of Motor Function”   
The purpose of this project is to implement a fully implanted system for individuals with SCI that is capable of providing four distinct functions: hand grasp, trunk stability, cough ability and bladder control.   
Role: Co-Investigator   
  
Halyard Health – Sponsored Research Agreement Kilgore/Bhadra (Co-PI) 6/30/2016-12/29/2017   
“Investigation of Charge-Balanced Direct Current Block”   
The goal of this study is to evaluate the safety and effectiveness of electrical block for acute pain, especially post-operative pain.   
  
Completed Research Support (last three years)   
R01- EB-001740 Peckham (PI) 05/01/2012-04/30/2016   
R01-NS-074149 “Separated Interface Electrode” Bhadra (PI) 03/01/2011-02/28/2016   
GSK – SRA “Electrical Nerve Block to Control Hypertension” Bhadra (PI) 10/01/2014-1/31/2016   
NIH R01- Below Injury Control Sources for SCI Kilgore (PI) 9/30/2011 – 8/31/2015   
VA Merit Review- Debilitating Contractures in SCI Kilgore (PI) 04/01/2011-03/31/2014

***Narendra Bhadra, MD, PhD***  
Case Western Reserve University

*(no CV uploaded)*

***Tina Vrabec, PhD***  
Case Western Reserve University

*(no CV uploaded)*

***Niloy Bhadra, MD, PhD***  
Case Western Reserve University

*(no CV uploaded)*

**172**

**A Novel Approach to Patient Education: Creating a Mobile Web Application for Patients with Spinal Cord Injury**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Marwa Mekki, MD***  
Mount Sinai Hospital, Icahn School of Medicine

**CV:**  
Marwa Mekki, MD   
  
marwamekki@gmail.com   
(847) 732-3700   
  
250 Mercer Street Apt C511   
New York, NY 10012   
  
  
  
RESEARCH PROJECTS AND POSTERS   
  
  
  
Influence of Spinal Mobility Exercise Program on Balance as Measured by Posturography in Persons with Spinal Cord Injury, Mount Sinai Hospital, 2017. Escalon, M; Tsai, CY; Delgado A; Mekki, M; Marzloff, G; Di Rosario, G   
  
Book Chapter in upcoming Principles of Rehabilitation Medicine, Chapter 16: SCI: Infectious and Inflammatory Diseases. Bryce, T; Huang, V; Mekki, M   
  
Mekki M, Abrams S, Bryce T. Oxycodone Overdose and Global Hypoxia Leads to Anterior Cord Ischemia Resulting in Tetraplegia: A Case Report. Poster Presented in the American Academy of Physical Medicine and Rehabilitation, Boston Oct 2015   
  
Mekki M, Bryce T. Very Early Surgical Excision of Heterotopic Ossification during Inpatient Rehabilitation 7 weeks after Diagnosis in a Patient with Left Acromioclavicular Fracture and Spinal Cord Injury: A Case Report. Poster Presented at the American Academy of Physical Medicine and Rehabilitation, New Orleans Oct 2016   
  
  
  
PEER TEACHING AND CURRICULUM DEVELOPMENT   
  
Developed didactic sessions at the James J. Peters Bronx VA including in-services with Physical and Occupational Therapy, Wound Rounds with wound care nursing, and exposure to current cutting edge research projects for residents on rotation   
  
Developed didactic presentations for Residents at the James J. Peters Bronx VA to obtain an overview of major topics in SCI medicine   
  
Developing patient centered educational modules for the inpatient SCI unit at Mount Sinai using novel technology   
  
Present weekly didactic sessions on topics in SCI Medicine to Residents and Attendings on the inpatient unit at Mount Sinai SCI floor   
  
“The Neuroprotective Role of Estrogen After Spinal Cord Injury” PM&R Grand Rounds, Mount Sinai Hospital NY, May 30, 2017   
  
“Understanding the ASIA Exam” Lecture to Residency program, Burke Rehabilitation, White Plains, NY September 28, 2017   
  
“Outcomes Following Spinal Cord Injury” Lecture to Residency program, Burke Rehabilitation, White Plains, NY September 28, 2017   
  
“Common Spinal Cord Injury Encounters and Board Style Review” Lecture to Residency program, New York University, New York, NY, to be delivered October 3, 2017   
  
  
LEADERSHIP AND VOLUNTEER EXPERIENCES   
  
  
2017-Present Coordinate weekly Journal Club sessions for the departments of SCI at Mount Sinai and the James J   
Peters VA in the Bronx   
2016-2017 New York Society of PM&R Board, Mentorship Committee   
2016 Spinal Cord Injury Adaptive Swimming, Volunteer   
2016 Disability Pride Parade   
2015 Special Olympics, Medical Volunteer   
2014 New York City Marathon, Medical Volunteer   
  
  
PROFESSIONAL AFFILIATIONS   
  
  
2012-Present Member, American Academy of Physical Medicine and Rehabilitation (AAPMR)   
2014-Present Member, New York Society of Physical Medicine and Rehabilitation (NYSPMR)   
2015-Present Member, Association of Academic Physiatrists (AAP)   
2016-Present Member, Academy of Spinal Cord Injury Professionals (ASCIP)   
  
  
SKILLS AND HOBBIES   
  
  
Skills: PowerPoint, Electronic Medical Records (EMR) including QuadraMed and EPIC   
  
Languages: Proficient in Spanish, Conversational in Arabic, Iraqi dialect   
  
Hobbies: Reading classic, contemporary, and science fiction literature, art, and travel

***George Marzloff, MD***  
Mount Sinai Hospital, Icahn School of Medicine

*(no CV uploaded)*

***Vincent Huang, MD***  
Mount Sinai Hospital, Icahn School of Medicine

*(no CV uploaded)*

***Thomas Bryce, MD***  
Mount Sinai Hospital, Icahn School of Medicine

*(no CV uploaded)*

**173**

**Endogenous Cortisol Delivery Following Spinal Cord Injury: Clinical Implications**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Jillian Clark, Ph.D.***  
Royal Adelaide Hospital

**CV:**  
Marshall R, Clark JM.   
The nature of the non-traumatic spinal cord injury literature: A systematic review Topics in Spinal Cord Injury Rehabilitation   
Accepted for publication April 4th 2017.   
  
Clark JM, Findlay DM. Musculoskeletal health in the context of spinal cord injury Current Osteoporosis Reports (Springer Current Osteoporosis Reports Springer Nature DOI: 10.1007/s11914-017-0400-1   
Accepted for publication June 1st 2017   
  
Original publications   
Ryan D Quarrington, Claire F Jones, Petar Tcherveniakov, Jillian M Clark, Simon J I Sandler, Yu Chao Lee, Shabnam Torabiardakani, John J Costi and Brian J C Freeman   
Traumatic subaxial cervical facet subluxation and dislocation injury: epidemiology, radiographic analysis and risk factors for spinal cord injury Spine (accepted 20th July 2017)   
  
Armstrong AJ\*, Clark JM\*, Ho DT, Payne CJ, Nolan S, Goodes L M, Marshall R, Galea MP, Dunlop SA Achieving assessor accuracy on the International Standards for Neurological Classification of Spinal Cord Injury. Spinal Cord (advance on-line publication 2017 \*Joint principal author http://www.nature.com/doifinder/10.1038/sc.2017.67).   
  
Dorstyn D, Roberts R, Murphy G, Kneebone I, Craig A, Chur-Hansen A, Migliorini C, Potter E, Stewart P, Clark J, Marshall R.   
Can targeted job information for adults with spinal cord dysfunction be effectively delivered online? A feasibility study J Spinal Cord Medicine (accepted for publication April 6th 2017)   
  
Galea MP, Pannisset M, Dunlop S, Marshall R, Clark J, Churilov L.   
SCIPA Switch-ON – A Randomised Controlled Trial Investigating the Efficacy and Safety of Functional Electrical Stimulation-Assisted Cycling and Passive Cycling Initiated Early After Traumatic Spinal Cord Injury. NeuroRehabilitation and Neural Repair (published on-line March 2017 – JIF 4.035)   
  
Battistuzzo CR, Skeers P, Cox S, Armstrong A, Clark JM, Laurenson J, Bernard S, Smith K, Freeman BJC, Dunlop SA, Batchelor PE   
Early rapid neurological assessment for acute spinal cord injury trials J Neurotrauma, 2016 Nov 1;33(21):1936-1945.   
  
Harvey L, Dunlop S, Churlikov L. Galea M, (Clark JM, Marshall R)   
Early intensive hand rehabilitation is not more effective than usual care in people with sub-acute spinal cord injury (“Hands On”): A Randomised Controlled Trial J of Physiotherapy, 62 (2):88-95, 2016   
  
Battistuzzo CR, Armstrong A, Clark JM, Worley L, Sharwood L, Lin P, Rooke G, Skeers P, Nolan S, Geraghty T, Geddes T, Middleton J, Bernard S, Atresh S, Patel A, Schouten R, Freeman BJC, Dunlop SA, Batchelor PE, on behalf of the ICED Investigators   
Early Decompression Following Cervical Spinal Cord Injury: Examining the Process of Care from Accident Scene to Surgery in Australia and New Zealand J Neurotrauma, 33(12):1161-9, 2016   
  
Galea M, Dunlop S, Marshall R, Clark J, Churilov L.   
Early exercise after spinal cord injury (“Switch-On”): Study protocol for a randomised controlled trial Trials 16:7 2015   
  
Clark J, Marshall R, Sharkey D, Wilkinson M, Clifton-Bligh R.   
Evidence for altered bone and skeletal muscle interactions in spinal cord injured (SCI) patients Journal Spinal Cord Medicine Vol 20 Suppl 1:12, 2014   
  
Clark J, Marshall R, Sharkey D.   
Prognostic value of neutrophil to leukocyte ratio and cytokine signatures in patients presenting with spinal cord injury (SCI) Journal Spinal Cord Medicine Vol 20 Suppl 1:56-57, 2014   
  
  
Clark JM.   
Biomarkers for the prognosis of spinal cord injury Australian and New Zealand Spinal Cord Injury Network Symposium, Perth, WA, November 26th, 2009 – Invited Plenary Speaker   
  
Clark JM   
Spinal cord injury and prognostic biomarkers. The 4th Mt Lofty Workshop on Frontier Technologies for Nervous System Function and Repair 17th-19th December, 2010 Adelaide, Sth Australia – Invited Plenary Speaker.   
  
Clark JM, Marshall R, Sharkey D, Wilkinson M, Clifton-Bligh R.   
Evidence for altered bone and skeletal muscle interactions in spinal cord injured (SCI) patients 40th Annual Scientific Meeting of the American Spinal Injury Association May 14th- 17th, 2014, San Antonio, Texas, USA – Award Eligible Paper   
  
Marshall R, Clark JM, Dunlop SA, Galea MP   
The International Standards for of Spinal Cord Injury (ISNCSCI): Consensus between Expert Examiners and Clinicians 12th ACSR Spinal Research Symposium X11, 16th- 18th October 2014, Adelaide, South Australia   
  
Clark JM, Sharkey D, Marshall R.   
Prognostic value of neutrophil to leukocyte ratio and cytokine signatures in patients presenting with spinal cord injury (SCI) 5th Australian Neurotrauma Symposium, 16th-18th October 2014, Adelaide, South Australia   
  
Clark JM, Marshall R, Wilkinson M, Clifton-Bligh R.   
Skeletal regulation of energy metabolism in spinal cord injured patients Mt Lofty Workshop, 28th-30th Nov, 2014, Adelaide, South Australia   
  
Clark JM, R Zarrinkalam, M Piche, R Marshall, BJC Freeman.   
Does the Acute Neutrophil Lymphocyte Ratio Predict Severity of Spinal Cord Injury (SCI)? ACSR Spinal Research Symposium X111, August 2015 Barossa Valley, South Australia   
  
Clark JM, R Zarrinkalam, M Piche, R Marshall, BJC Freeman.   
Does the Acute Neutrophil Lymphocyte Ratio Predict Severity of Spinal Cord Injury (SCI)? 6th Australian Neurotrauma Forum, October 5th-16th 2015, Adelaide, South Australia   
  
Clark JM. Under-loaded bone: Lessons from Spinal Cord Injury 16th Clare Bone & Joint Meeting, 1st- 4th April 2016, Clare Valley, South Australia

***Marnie Nenke, MD***  
Royal Adelaide Hospital

*(no CV uploaded)*

***Sharkey David, Ph.D.***  
University of Adelaide

*(no CV uploaded)*

***Ruth Marshall, MD***  
Royal Adelaide Hospital

*(no CV uploaded)*

***Sarah Dunlop, Ph.D.***  
University of Western Australia

*(no CV uploaded)*

***Mary Galea, Ph.D.***  
University of Melbourne

*(no CV uploaded)*

***David Torpy, MD, Ph.D.***  
Royal Adelaide Hospital

*(no CV uploaded)*

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**Early decompression strategy is effective in thoracolumbar traumatic spinal cord injury with lower grade residual spinal canal compression**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Julien Goulet, MD***  
Université De Montréal

**CV:**  
Name: Julien Goulet MD    
Position Title: Senior Resident, Orthopaedic Surgery, Université de Montréal    
  
Education background    
  
2014 – … Orthopaedic Surgery Residency    
Université de Montréal, Programme d’orthopédie Édouard-Samson    
Montreal, Quebec    
2010 – 2014 Doctorate of Medicine    
Université de Montréal    
Montreal, Quebec    
  
Honors   
  
2017 - Grantee, Fondation de recherche et d'éducation en orthopédie de Montréal    
  
Spinal Cord Injury related publications / presentations    
  
-

***Jean-Marc Mac-Thiong, MD, PhD***  
Université De Montréal

**CV:**  
Jean-Marc Mac-Thiong    
  
Associate Professor, Orthopaedic Surgery, Université de Montréal    
  
Research and professional experience:    
  
Positions and Employment    
  
2017-… Research program director, Division of orthopedic surgery, Université de Montréal, Canada    
2011-… Orthopedic spine surgeon, Montreal Shriners Hospital, Canada    
2010-… Chair, Medtronic Research Chair in spinal trauma, Université de Montréal, Canada    
2010-… Chief Medical Officer, Spinologics Inc., Canada    
2008-… Associate Professor, Department of Surgery, Université de Montréal, Canada    
2008-… Orthopedic spine surgeon and researcher, Hôpital du Sacré-Coeur de Montréal, Canada    
2008-… Orthopedic spine surgeon and researcher, CHU Sainte-Justine, Canada    
2008-11 Spine surgery fellowship director, Hôpital du Sacré-Coeur de Montréal, Canada    
Other Experience and Professional Memberships    
2017-… Chair, Spine / Acute Trauma Committee, American Spinal Injury Association    
2017-21 Member, Morbidity & Mortality Committee, Scoliosis Research Society    
2017-20 Reviewer, Education and Program Committee, Scoliosis Research Society    
2017- Member, Expert Committee, 2017 Grants for Canada Foundation for Innovation    
2017- Organizer and scientific director, 37th Research Day of the Division of Orthopedic Surgery of Université de Montréal    
2015-… Associate Member, Minimize Implants Maximize Outcomes (MIMO) Study Group    
2015-… Member, iLab-Spine (Laboratoire international – Imagerie et biomécanique du rachis)    
2014-… Associate Member, Harms Study Group    
2013-… Member, Evaluation Committee, 2013 Salary awards for clinician-scientists, Fonds de recherche du Québec – Santé    
2012-13 Associate Member, North American Spine Society    
2012-… Member, American Spinal Injury Association    
2010-… Reviewer for journals: Journal of Neurotrauma, PLoS One, Spine, Scoliosis    
2009-15 Member, Executive Committee, MENTOR scholarship program of the Canadian Institutes of Health Research    
2009-… Member, Scientific Committee, International Research Society of Spinal Deformities    
2008-… Member, Scoliosis Research Society    
  
Honors    
  
2015 Ansys Hall of Fame 2015 Best in Show: Corporate    
2015 Pierre-H. Labelle Prize for best presentation, Annual Meeting of the Quebec Scoliosis Society (also winner in 2012, 2011, 2009, 2008, 2006, and 2000)    
2014 Best New Technology for Spine Care in 2014 (Diagnostic and Imaging)    
2012 Travel Award – Institute Community Support of the Canadian Institutes of Health Research    
2011 Scoliosis Research Society Traveling Fellowship    
2010 Best presentation (Treatment), 8th International Research Society of Spinal Deformities Meeting    
2009 Louis A. Goldstein Award for best clinical presentation, Scoliosis Research Society 44th Annual Meeting    
2009 Edgar Dawson Traveling Fellowship of the Scoliosis Research Society    
2008-16 Salary award for clinician-scientists, Fonds de recherche du Québec – Santé    
2008 Dean’s list, Ph.D. Biomedical Sciences, Université de Montréal    
2007 Dean’s list, Residency in orthopedic surgery, Université de Montréal    
2001 Dean’s list, M.S. Biomedical Sciences, Université de Montréal    
  
Publications    
  
H-index: 27 i10-Index: 56    
  
List (N=126) of Published Work in Pubmed: https://www.ncbi.nlm.nih.gov/pubmed/?term=mac-thiong    
  
Peer-reviewed publications on spinal cord injury    
  
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a two-level scale based on the Spinal Cord Independence Measure. Accepted in Int J Phys Med Rehabil    
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Response to the letter to the editor written by Professors Gefen and Santamaria regarding the article: “Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress”. Accepted in Int Wound J    
• Squair JW, et al. Spinal cord perfusion pressure predicts neurological recovery in acute spinal cord injury. Accepted in Neurology    
• Richard-Denis A, et al., Mac-Thiong J-M. The impact of acute management in a specialized spinal cord injury center on the occurrence of medical complications following motor-complete cervical spinal cord injury. J Spinal Cord Med [Epub ahead of print]    
• Facchinello Y, et al., Mac-Thiong J-M. The development of an instrumented spinal cord surrogate using optical fibers: a feasibility study. Med Eng Phys [Epub ahead of print]    
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early transfer to specialized acute SCI center. Am J Phys Med Rehabil [Epub ahead of print] (CME article)    
• Richard-Denis A, et al., Mac-Thiong J-M. Prediction of functional recovery six months following traumatic spinal cord injury during acute care hospitalization. J Spinal Cord Med [Epub ahead of print]    
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. Int Wound J [Epub ahead of print]    
• Thompson C, Feldman DE, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury: identifying barriers to early surgery in a specialized spinal cord injury center. J Spinal Cord Med [Epub ahead of print]    
• Cheng CL, et al. Geomapping of traumatic spinal cord injury in Canada and factors related to triage pattern. J Neurotrauma [Epub ahead of print]    
• Fradet L, et al. Strain rate dependent behavior of the porcine spinal cord under transverse dynamic compression. Proc Inst Mech Eng H [Epub ahead of print]    
• Streijger F, et al. A targeted proteomis Analysis of cerebrospinal fluid after acute human spinal cord injury. J Neurotrauma 2017;34:2054-68    
• Kaminski L, et al., Mac-Thiong J-M. Functional outcome prediction after traumatic spinal cord injury based on acute clinical factors. J Neurotrauma 2017;34:2027-33    
• Wu Y, et al. Parallel metabolomic profiling of cerebrospinal fluid and serum for identifying biomarkers of injury severity after acute human spinal cord injury. Sci Rep 2016;6:38718    
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Do patients with complete spinal cord injury benefit from early surgical decompression? Analysis of neurological improvement in a prospective cohort study. J Neurotrauma 2016;33:301-6    
• Richard-Denis A, et al., Mac-Thiong J-M. Does the acute care spinal cord injury settings predict the occurrence of pressure ulcers at arrival to intensive rehabilitation centers? Am J Phys Med Rehabil 2016;95:300-8    
• Thompson C, et al., Mac-Thiong J-M. The changing demographics of traumatic spinal cord injury: an 11-year study of 831 patients. J Spinal Cord Med 2015;38:214-23    
• Berube M, et al., Mac-Thiong J-M. Development of theory-based knowledge translation interventions to facilitate the implementation of evidence-based guidelines on the early management of adults with traumatic spinal cord injury. J Eval Clin Pract 2015;21:1157-68    
• Petit Y, et al., Mac-Thiong JM. Simulation of high energy vertebral fractures on complete porcine specimens. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3901-4    
• Dvorak MF, et al. Minimizing errors in acute traumatic spinal cord injury trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. J Neurotrauma 2014;31:1540-47    
• Boisclair D, Mac-Thiong J-M, et al. Compressive loading of the spine may affect the spinal canal encroachment of burst fractures. J Spinal Disord Tech 2013;26:342-6    
• Bourassa-Moreau É, Mac-Thiong J-M, et al. Non-neurological outcomes following complete traumatic spinal cord injury: The impact of surgical timing. J Neurotrauma 2013;30:1596-601    
• Bourassa-Moreau É, et al., Mac-Thiong J-M. Complications in acute phase hospitalization of traumatic spinal cord injury: does surgical timing matter? J Trauma Acute Care Surg 2013;74:849-54    
• Mac-Thiong J-M, et al. Does timing of surgery affect hospitalization costs and length of stay for acute care following a traumatic spinal cord injury? J Neurotrauma 2012;29:2816-22    
• Parent S, Mac-Thiong J-M, et al. Spinal cord injury in the pediatric population: a systematic review of the literature. J Neurotrauma 2011;28:1515-24    
  
Peer-reviewed publications on other spine-related projects (2015-2017)    
  
• Soliman HAG, et al., Mac-Thiong J-M. The early impact of postoperative bracing on pain and quality of life following posterior instrumented fusion for lumbar degenerative conditions: a randomized trial. Spine 2017 [Epub ahead of print]    
• Gutman G, et al. Measurement properties of the Scoliosis Research Society Outcomes Questionnaire in adolescent with spondylolisthesis. Spine 2017 [Epub ahead of print]    
• Mac-Thiong J-M, et al. Defining the number and type of fixation anchors for optimal main curve correction in posterior surgery for adolescent idiopathic scoliosis. Spine J 2016 [Epub ahead of print]    
• Brummund M, et al, Mac-Thiong J-M. Impact of anchor type on porcine lumbar biomechanics: finite element modelling and in-vitro evaluation. Clin Biomech 2017;43:86-94    
• Bianco RJ, et al. Minimizing pedicle screw pullout risks: a detailed biomechanical analysis of screw design and placement. Clin Spine Surg 2017;30:E226-32    
• Soliman H, Mac-Thiong J-M, et al. Assessment of regional bone density in fractured vertebrae using quantitative computed tomography. Asian Spine J 2017;11:57-62    
• Mac-Thiong J-M, et al. Experimental model of proximal junctional fracture after multilevel posterior spinal instrumentation. Biomed Res Int 2016;2016:8058796    
• Mac-Thiong J-M, et al. Reply to the letter to the Editor by Zaina et al. concerning the paper “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace.” Spine J 2016;16:1033-4    
• Mac-Thiong J-M, et al. Reply to Letter to the Editor by Allison Grant regarding the accepted manuscript by Gutman et al. (2016) “The effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace”. Spine J 2016;16:1030-2    
• Mac-Thiong J-M, et al. Reply to the “Comments on the pending Spine Journal publication: the effectiveness of the SpineCor brace for the conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace” by Charles Hilaire Rivard. Spine J 2016;16:1026-8    
• Gutman G, et al., Mac-Thiong J-M. Normal sagittal parameters of global balance in children and adolescents: a prospective study of 646 asymptomatic subjects. Eur Spine J 2016;25:3650-7    
• Mac-Thiong J-M, et al. Posterior convex release and interbody fusion (PCRIF) for thoracic scoliosis. J Neurosurg Spine 2016;25 :357-65    
• Brailovski V, et al., Mac-Thiong J-M. Ti-Ni rods with variable stiffness for spine stabilization: manufacture and biomechanical evaluation. Shap Mem Superelasticity 2016;2:3-11    
• Gutman GA, et al., Mac-Thiong J-M. The effectiveness of the SpineCor brace for conservative treatment of adolescent idiopathic scoliosis. Comparison with the Boston brace. Spine J 2016;16:626-31    
• Bianco R-J, et al. Pedicle screw fixation under non-axial loads: a cadaveric study. Spine 2016;41:E124-30    
• Facchinello Y, et al., Mac-Thiong J-M. Biomechanical assessment of the stabilization capacity of monolithic spinal rods with different flexural stiffness and anchoring arrangement. Clin Biomech 2015;30:1026-35    
• Brummund M, et al., Mac-Thiong J-M. Implementation of a 3D porcine lumbar finite element model for simulation of monolithic spinal rods with variable flexural stiffness. Conf Proc IEEE Eng Med Biol Soc 2015;2015:917-20    
• Facchinello Y, et al., Mac-Thiong J-M. In-vitro assessment of the stabilization capacity of monolithic spinal rods with variable flexural stiffness: methodology and examples. Conf Proc IEEE Eng Med Biol Soc 2015;2015:3913-6    
• Pasha S, et al., Mac-Thiong J-M. The biomechanical effects of spinal fusion on the sacral loading in adolescent idiopathic scoliosis. Clin Biomech 2015;30:981-7    
• Mehmanparast H, Mac-Thiong J-M, Petit Y. Comparison of Pedicle Screw Loosening Mechanisms and the Effect on Fixation Strength. J Biomech Eng 2015;137:121003    
• Tremblay J, Mac-Thiong J-M, et al. Braided tubular superelastic cables provide improved spinal stability compared to multifilament sublaminar cables. Proc Inst Mech Eng H 2015;229:645-51    
• Tang QL, et al. A replication study for association of 53 single nucleotide polymorphisms in ScoliScore TM test with adolescent idiopathic scoliosis in French-Canadian population. Spine 2015;40:537-43    
• Aubin C-E, et al., Mac-Thiong J-M. Instrumentation strategies to reduce the risks of proximal junctional kyphosis in adult scoliosis: a detailed biomechanical analysis. Spine Deformity 2015;3:211-8    
• Driscoll M, Mac-Thiong J-M, et al. Biomechanical comparison of 2 different pedicle screw systems during the surgical correction of adult spinal deformities. Spine Deformity 2015;3:114-21    
• Tremblay J, et al. Factors affecting intradiscal pressure measurement during in vitro biomechanical tests. Scoliosis 2015;10(Suppl 2):S1    
• Guilbert M-C, et al. Transformation of a primitive myxoid mesenchymal tumor of infancy to an undifferentiated sarcoma: a first reported case. J Pediatr Hematol Oncol 2015;37:e118-20    
• Ibrahim S, Labelle H, Mac-Thiong J-M. Brace treatment of thoracolumbar kyphosis in spondylometaphyseal dysplasia with restoration of vertebral morphology and sagittal profile: a case report. Spine J 2015;15:e29-34    
• Toueg C-W, Mac-Thiong J-M, et al. Spondylolisthesis, sacro-pelvic morphology and orientation in young gymnasts. J Spinal Disord Tech 2015;28:E358-64    
  
Overview of presentations on spinal cord injury at international conferences (2014-2017)    
  
• Facchinello Y, et al., Mac-Thiong J-M. The development of a physical spinal cord surrogate with localized transverse compression sensing capabilities. 3rd World Congress on Electrical Engineering and Computer Systems and Science, Rome, Italy, June 5-6 2017    
• Thompson C, Richard-Denis A, Mac-Thiong J-M. Expectations in chronic QOL following cervial traumatic spinal cord injury based on the initial severity of the neurological injury. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017    
• Facchinello Y, et al., Mac-Thiong J-M. Development of an instrumented spinal cord surrogate using embedded optical fiber: a feasibility study. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017    
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Determining complete functional independence in patients with a traumatic cervical spinal cord injury: proposal of a new 2-level scale based on the SCIM-III. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017    
• Richard-Denis A, Thompson C, Mac-Thiong J-M. Effectiveness of a multi-layer foam dressing in preventing sacral pressure ulcers for the early acute care of patients with a traumatic spinal cord injury: Comparison with the use of a gel mattress. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017    
• Facchinello Y, et al., Mac-Thiong J-M. Comparison of anterior and posterior spinal cord contusion using a minipig model. 2017 Annual Scientific Meeting of the ASIA, Albuquerque, April 26-29 2017    
• Facchinello Y, et al., Mac-Thiong J-M. Instrumented spinal cord surrogate using optical fiber: role of the fibers location. The 13th IASTED International Conference on Biomedical Engineering, Innsbruck, Austria, February 20-22 2017    
• Hagen J, et al. Influence of posterior ligamentous reduction on spinal cord integrity: a finite element analysis. 22nd Congress of the European Society of Biomechanics, Lyon, France, July 10-13 2016    
• Thompson C, et al., Mac-Thiong J-M. Factors Predicting the Delay Between Trauma and Surgery in a Prospective Cohort Admitted with a Traumatic Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016    
• Richard-Denis A, et al., Mac-Thiong J-M. The Impact of Acute Management by a Multidisciplinary Team Specialized in Spinal Cord Injury on the Occurrence of Medical Complications Following Motor-complete Cervical Spinal Cord Injury. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016    
• Richard-Denis A, et al., Mac-Thiong J-M. Requirement for Tracheostomy and Duration of Mechanical Ventilation Support in Patients with a Complete Cervical Traumatic Spinal Cord Injury: The Influence of Early Management in a SCI-specialized Center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016    
• Thompson C, et al., Mac-Thiong J-M. Factors predicting functional outcome one year after a traumatic spinal cord injury: results from a prospective study. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016    
• Richard-Denis A, et al., Mac-Thiong J-M. Costs and length of stay for the acute care of patients with motor-complete spinal cord injury following cervical trauma: the impact of early peri-operative management in a specialized acute SCI center. 2016 Annual Meeting of the ASIA, Philadelphia, April 13-16 2016    
• Cliche F, Petit Y, Mac-Thiong J-M. Effect of compression time related to anterior vs posterior spinal cord contusion. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015    
• Lemonnier D, Bélanger P, Mac-Thiong J-M. Study of the post-mortem evolution of the spinal cord echogenecity using ultrasonic imaging. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015    
• Bourassa-Moreau, et al., Mac-Thiong J-M. The impact of early surgical timing for complete spinal cord injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015    
• Thompson C, Parent S, Feldman DE, Gagnon D, Mac-Thiong J-M. Surgical management of patients following traumatic spinal cord injury (SCI): identifying barriers to early surgery in specialized SCI care centers. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015    
• Richard-Denis A, Mac-Thiong J-M, et al. Early development of spasticity in persons with spinal cord injury and impact on function 6 months post injury. The 4th ISCoS and ASIA joint scientific meeting, Montréal, Canada, May 14-16 2015    
• Cliche F, Mac-Thiong J-M, Petit Y. Anterior spinal cord contusion on porcine model. ASME 2014 International Mechanical Engineering Congress & Exposition, Montreal, Canada, November 14-20 2014.    
• Dvorak MF, et al. The importance of “time to surgery” for traumatic spinal cord injured patients: results from an ambispective Canadian cohort of 949 patients. 49th SRS Annual Meeting & Course, Anchorage, September 10-13 2014    
• Bourassa-Moreau E, Parent S, Mac-Thiong J-M. The Impact of Early Surgical Timing for Complete Spinal Cord Injury. 21st International Meeting on Advanced Spine Techniques (IMAST), Valencia, Spain, July 16-19 2014    
• Mac-Thiong J-M, et al. Instructional Course Lecture: The Benefits of early intervention and emergent therapies for traumatic spinal cord injury. 2014 American Orthopaedic Association/Canadian Orthopaedic Association Combined Meeting, Montreal, Canada, June 18-21 2014    
• Bérubé M, et al., Mac-Thiong J-M. Development of a knowledge translation program to facilitate the application of evidence-based guidelines on early management of adults with spinal cord injury. National Association of Orthopaedic Nurses 34th Annual Congress. Las Vegas, Nevada, May 17-20 2014    
• Mac-Thiong J-M, et al. Benefits of early transport to specialized centres of care for SCI. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014    
• Dvorak MF, et al. Minimizing errors in traumatic spinal cord injury clinical trials by acknowledging the heterogeneity of spinal cord anatomy and injury severity: an observational Canadian cohort analysis. ASIA 40th Annual Scientific Meeting. San Antonio, May 14-17 2014

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**State Legislation to Fund Post-Acute Rehabilitation – A Utah Experience**

Friday, May 04, 2018 10:30 AM - 11:30 AM

***Dale Hull, MD, MPA***  
Neuroworx

**CV:**  
Over past fifteen years I have been invited to share my experience with paralysis and rehabilitation, the Neuroworx story, and the legislative efforts to assist others with groups both large and small. The following is a list of the more substantial opportunities over the recent five years:   
Rehab Week 2017 – London, England 2017   
Ohio Bureau of Workers Compensation – Columbus, OH 2017   
Utah District Rotarian Annual Conference – Park City, UT 2017   
Utah School Nurses Assoc. – Salt Lake City, UT 2017   
UTEMED Univ. of Utah School of Medicine Alumni Continuing Education Series – Salt Lake City, UT 2016   
American Association of State Compensation Insurance Funds – Salt Lake City 2016   
Layers of Medicine, Second Year Students, University of Utah school of Medicine 2016 & 2017   
Utah Society of HealthCare Engineers – Salt Lake City, Utah 2016 & 2017   
Brigham Young University Student Nursing Conference – Provo, UT 2016   
Alpha Omega Alpha Graduation Banquet – University of Utah School of Medicine 2015   
American Association of State Compensation Insurance Funds – Washington DC 2014   
Rocky Mountain HealthCare – Salt Lake City 2014   
TEDx Salt Lake City 2013   
Spirit, Mind, Body Conference – University of Utah 2013   
Brigham Young University Women’s Conference 2013   
Salt Lake Chamber of Commerce 2012   
Executive Masters of Public Administration Graduation Banquet 2012   
Workers Compensation Fund 2012

***Dennis Lloyd, JD, MBA***  
Wcf Insurance

**CV:**  
PROFESSIONAL ASSOCIATIONS AND AFFILIATIONS   
Current   
• American Association of State Compensation Insurance Funds (AASCIF) – Secretary/Treasurer   
• Dr. Paul S. Richards Scholarship Selection Committee – Member   
• Legacy of Learning Scholarship Selection Committee – Member   
• Neuroworx – Board Member   
• Rocky Mountain Center for Occupational and Environmental Health – Advisory Board Chair   
• Utah Foundation – Executive Committee Board Member   
• Utah State Bar Association – Member   
o Admitted to practice law before the Utah Supreme Court and the United States District Court of Utah   
• YMCA of Northern Utah – Board Member   
  
Past   
• American Association of State Compensation Insurance Funds (AASCIF)   
o Law Committee – Advisor   
o Law Committee – Chair   
o Law Committee – Member   
o National Issues Committee – Advisor   
o National Issues Committee – Chair   
o National Issues Committee Member   
• Amicus Board of Directors, Deseret Foundation – Member   
• Occupational Disease Recodification Committee, Industrial Commission of Utah – Chair   
• Riverton City Board of Adjustments – Board Member   
• University of Utah Hospital Foundation, Board of Trustees – Member   
• Utah State Bar Association – Bar Examiner   
• Utah Workers Compensation ISSUES Newsletter – Editor-In-Chief   
  
Involved in Drafting   
• SCI/TBI Rehabilitation Fund (2012)   
• Assessment Offset for Donations Promoting Occupational Health and Safety (2005)   
• Utah Labor Commission Act (1997)   
• Workers’ Compensation Act (1997)   
• Utah Occupational Disease Act (1997)   
• Workers’ Compensation Reform Legislation (1995)   
• Utah Permanent Total Disability Act (1994)   
• Workers’ Compensation Fraud Prevention Act (1993)   
• Utah Managed Health Care Act (1992)   
• Utah Occupational Disease Act (1991)

***Jan Black, PT, MSPT***  
Neuroworx

**CV:**  
J. Black, D. Umphred, Linking Knowledge from the Past and Today’s Evidence in Order to Establish Tomorrow’s Clinical Practice; UPTA Fall Conference, Salt Lake City, UT;   
October 2017   
  
J. Black, Robotics in the Outpatient Setting; Rehab Week 2017; London, UK; July 2017   
  
J. Black, M. Hansen, University of Utah Doctorate of Physical Therapy Guest Lecture; Neurological Aquatics with lab; University of Utah; October 2016.   
  
  
J. Black, Neurological Rehabilitation: Using Patient Needs to Guide the Journey; Rehab Summit Conference, Orlando, FL, July 2015   
  
J. Black, The Aquatic Tool for Neurological Rehabilitation; VA Polytrauma Rehabilitation Center, San Antonio TX, March 2015   
  
J. Black, Webinar, The Use of Aquatic Therapy for Neurological Rehabilitation; South Jordan, UT. January 2015   
  
  
J. Black, M. Hansen, University of Utah Doctorate of Physical Therapy Guest Lecture; Neurological Aquatics with lab; University of Utah; October 2015.   
  
J. Black, M. Hansen, University of Utah Doctorate of Physical Therapy Guest Lecture; Neurological Aquatics with lab; University of Utah; October 2014.   
  
J. Black, M. Hansen, University of Utah Doctorate of Physical Therapy Guest Lecture; Neurological Aquatics with lab; University of Utah; October 2013.   
  
J. Black, D. Hull; Spinal Cord Injury Rehabilitation: Everything we want physicians to know in 50 minutes; University of Utah School of Medicine; Neurology Organ System for 2nd year students; September 2013   
  
J. Black, B. Kreuger. Strategies for Working with the Exceptional Student. The Northwest International Consortium (NIC) of Physical Therapy Clinical Education Programs. 2012 Clinical Education Conference. Park City, UT. September 2012.   
  
J. Black. Introduction to Medical Studies. Guest Lecture. Honors College; University of Utah. February 2012