

AMERICAN SPINAL INJURY ASSOCIATION

2018 Annual Scientific Meeting

May 2-4, 2018

Precourse - May 1, 2018

2018 DIAMOND PARTNER



MAYO CIVIC CENTER • ROCHESTER, MINNESOTA



2209 Dickens Road
Richmond, VA 23230-2005
(804) 565-6396 | Fax (804) 282-0090
www.asia-spinalinjury.org

In collaboration with





CRAIG·H
NEILSEN
FOUNDATION

The Craig H. Neilsen Foundation
proudly supports the
2018 Annual Scientific Meeting

ASIA
AMERICAN SPINAL INJURY ASSOCIATION

Craig H. Neilsen Foundation's funding is dedicated to supporting both programs and scientific research to improve the quality of life for those affected by and living with spinal cord injury.

www.chnfoundation.org



Now Recruiting

SPRING Trial: Acute Spinal Cord Injury

Come visit us at our booth
& find out more about our
Phase 2b/3 VX-210 Trial

Booth #10



Exhibit Hours

Wednesday, May 2
7:00 am – 3:30 pm

Thursday, May 3
7:00 am – 3:15 pm

For more information

www.vertexscitrial.com
NCT02669849

© 2018 Vertex Pharmaceuticals Incorporated
VXMA-HQ-51-00011 | 04/2018

2018 Lifetime Achievement Award Recipients

Richard P. Bunge, MD Mary Bartlett Bunge, PhD

Theirs was a true and productive partnership, not only in their personal lives, but also as a research team.

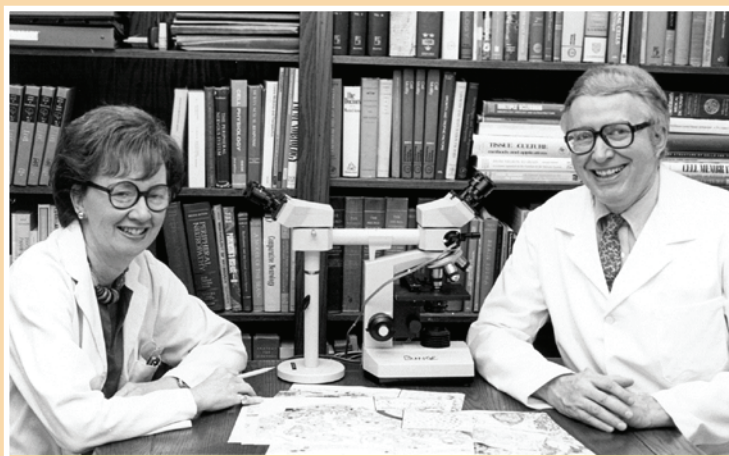
Richard P. Bunge, MD

Richard P. Bunge, MD, spent his lifetime at the forefront of research efforts to understand and improve the processes of repair in the nervous system. While a medical student, he discovered that myelin could be broken down and then reformed in the adult mammalian spinal cord, a revolutionary idea in the 1950s. This discovery initiated his lifelong love of research and abandonment of his goal to become a physician. This work led to the discovery, with Dr. Mary Bunge, of the mechanism of CNS myelination and the demonstration of the connections between forming myelin and oligodendrocytes.



Richard P. Bunge, MD

While still a young investigator, Dr. Bunge and his colleagues, primarily Dr. Patrick Wood, developed a cell culture system in which myelination could be studied systematically and fundamental discoveries elucidating the processes underlying Schwann cell-neuron interactions could be made. He proposed in 1975 that cellular grafts, particularly of Schwann cells, could be prepared in tissue culture and then transplanted to enhance repair in the CNS. Accordingly, he pioneered studies of the biology of adult human Schwann cells as a prelude to possible autotransplantation into sites of spinal cord injury in the human. In 1990, he initiated an extensive and detailed characterization of the pathology of human spinal cord



Mary Bunge often has said, "We completed each other."

injury that provided novel and fundamental insights into the nature of that injury, including demyelination and axonal degeneration.

After obtaining his MD degree from the University of Wisconsin Medical School in 1960, Dr. Bunge went to Columbia University to learn the technique of nerve tissue culture with one of its founders, Dr. Margaret R. Murray. He then held faculty appointments

in anatomy at Columbia University College of Physicians and Surgeons from 1962 to 1970, and in anatomy and neurobiology at Washington University School of Medicine from 1970 to 1989, before joining the faculty at the Leonard M. Miller School of Medicine at the University of Miami. He held the Kinetic Concepts Distinguished Chair in Neurological Surgery and was Scientific Director of The Miami Project to Cure Paralysis.

Throughout his distinguished career, he published 153 peer-reviewed manuscripts in high quality neuroscience journals and was awarded an impressive array of grants from the NIH. Dr. Bunge received Javits Neuroscience Investigator Awards from the NIH, the Friedrich von Rechlinghausen Award for the Advancement of Medical Sciences in Neurofibromatosis, the Gordon Conference on Myelin Chairman Award and, with his collaborator and partner Mary, the prestigious Wakeman Award for their pioneering work in tissue culture and cell biology of fetal cells, transplantation, and detailed descriptions of human spinal cord injury. He was named a Heiner Sell Memorial Lecturer by ASIA, a lecture he never gave due to his untimely death in 1996. Upon his passing, an edition of *Experimental Neurology* was dedicated in his memory, in which the Section Editors Drs. Jerry Silver and Scott Whittamore wrote, "Those of us who work in these areas owe a great debt of gratitude to Richard Bunge and his legacy of scientific achievements."

Mary Bartlett Bunge, PhD

Mary Bartlett Bunge, PhD, is currently Professor of Cell Biology, Neurological Surgery, and Neurology and the Christine E. Lynn Distinguished Professor of Neuroscience at the Miller School of Medicine, working in The Miami Project to Cure Paralysis. Dr. Bunge earned her MS degree in Medical Physiology under thesis advisor, R.F. Schilling, at the University of Wisconsin Medical School (1955), and her PhD in Zoology-Cytology with advisor, Dr. Hans Ris (1960). She was an NINDB Post-Doctoral Fellow (1960-62) in the Department of Anatomy (Dr. George D. Pappas) and Laboratory for Cell Physiology (Dr. Margaret R. Murray) at Columbia University College of Physicians and Surgeons.



Mary Bartlett Bunge, PhD

Pursuing an overall goal of promoting nervous system repair, Dr. Mary Bunge has been a pioneer in identifying the structure and function of cells that form myelin and, more recently, in developing a new spinal cord injury model and novel combination strategies to improve repair of the injured spinal cord. Her laboratory conducts preclinical studies aimed at developing neuroprotective and neuro-regenerative therapies for spinal cord injuries. These therapies include the transplantation of genetically modified Schwann cells to facilitate regeneration in damaged spinal cords. The Bunge work on the efficacy of transplanted Schwann cells in spinal cord repair contributed to gaining approval from the FDA in 2012 for initiating clinical trial testing of these cells in spinal cord injured subjects.

Dr. Bunge has published 47 book chapters and scholarly monographs and 161 peer-reviewed manuscripts. These articles have been cited by her peers in nearly 13,000 of their manuscripts. She has received numerous NIH grants, including a current award supporting the Bunge's collaboration that has provided uninterrupted funding for 45 years. The Christopher and Dana Reeve Foundation also provided funding for many years. Dr. Bunge has served as Chair or member of 13 NIH study sections and Councils for the NINDS and the American Society for Cell Biology. She has served on editorial boards for *Experimental Neurology*, the *Journal of Neurocytology*,

and the *Journal of Cell Biology*. She has worked as Chair or member of 37 Society and Organization Boards and Panels, including the NIH Director Search Committee and the National Task Force for the NIH Strategic Plan.

Like her collaborator and partner, Dr. Mary Bunge received the Wakeman Award (1996) for her seminal contributions to the field of spinal cord injury repair, and also the Christopher Reeve Research Medal for Spinal Cord Repair (2001), a Javits Neuroscience Investigator Award for 1998-2005, and was the first recipient of the Mika Salpeter Women in Neuroscience Lifetime Achievement Award (2000). She has also received the Lois Pope LIFE International Research Award (2005). In 2013, she was elected to the National Academy of Medicine. At the University of Miami, she was inducted in 2005 into Iron Arrow, the highest honor at the University and named the Distinguished Faculty Scholar for 2012. Dr. Bunge has mentored 15 doctoral students and 32 post-doctoral fellows. Mentoring trainees has been an important priority. As a member (1993-2007) and Chair of the Development of Women's Careers in Neuroscience Committee, Society for Neuroscience (Sven, 1993-2007), she instituted a variety of mentoring activities that has led recently to a mentoring luncheon held every year at the annual SfN meeting. Dr. Bunge founded the Mary Bartlett Bunge Distinguished Women in Cell Biology Lecture Series that has brought an outstanding lecture and mentoring sessions to the University community every year since 2005.

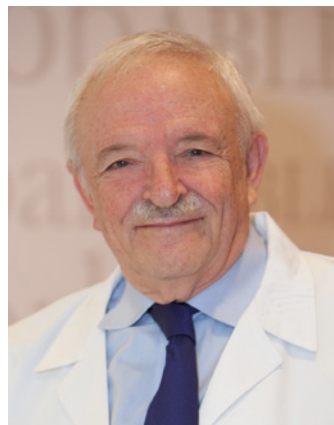
Theirs was a true and productive partnership, not only in their personal lives, but also as a research team. As Mary Bunge often has said, "We completed each other." Their shared goal of applying the basic science findings to clinical situations helped drive the progression of "bench" studies of Schwann cell biology to the "bedside" testing of autologous Schwann cell transplantation in spinal cord injured subjects in The Miami Project. To quote Mary Bunge again, "This has been such an exciting, fruitful and especially fulfilling journey."

Established in 1987, the ASIA Lifetime Achievement Award is presented to an individual(s) who made a significant contribution to the world of spinal cord injury care. Criteria include: career dedication; peer recognition; professional competence; and recognized achievement. Each recipient is chosen from a slate of member submitted candidates.

Editorial Content by Naomi Kleitman, PhD



The Distinguished G. Heiner Sell Lectureship William "Zev" Rymer, MD, PhD



William "Zev" Rymer, MD, PhD

The G. Heiner Sell Lectureship was inaugurated in 1982, following the untimely death of Dr. Sell the previous year. At that time, Dr. Sell was President-Elect of ASIA, and the association wanted to memorialize him by presenting this named lecture as the keynote of its annual scientific meeting.

The **2018 Distinguished G. Heiner Sell Lectureship** is being presented by William "Zev" Rymer, MD, PhD. Dr. Rymer is Director of the Single Motor Unit Laboratory at the Shirley Ryan AbilityLab (formerly the Rehabilitation Institute of Chicago). He is a Professor in the Departments of Physiology, Physical Medicine and Rehabilitation, and Biomedical Engineering, at the Northwestern University Feinberg School of Medicine and in the McCormick School of Engineering and Applied Science (MEAS). Dr. Rymer also holds an appointment as a Research Scientist at the Hines VA. Over the past four decades, Zev Rymer has been widely recognized as a leader in rehabilitation research. His research spans topics from basic mechanisms of pathophysiology after

SCI to clinical issues such as spasticity and engineering approaches to neurological rehabilitation.

Dr. Rymer's research program has received funding from governmental and non-governmental organizations, including PVA, the Neilsen Foundation, the VA, and NIDILRR. Notably, Dr. Rymer has been continually funded since 1993 by the NIH in research topics directly relevant to SCI. Some specific examples of his contributions include studies of spinal reflex mechanisms in preclinical models, where Dr. Rymer showed novel responses of golgi tendon organs during activated reflex and helped to identify mechanoreceptors in free nerve endings as a source of inhibition of muscle strength. In clinical studies, Dr. Rymer most recently pioneered the study of potential therapeutic effects of acute intermittent hypoxia, combined with over ground and treadmill based rehabilitation programs. His current bioengineering studies include developing evidenced-based approaches to quantify time and effort devoted to use of robotic and computer based interventions in rehabilitation, and developing new technologies for advancing advance mobility and reintegration after SCI or stroke. His Feinberg faculty profile provides a link to his more than 300 publications, which have received more than 9000 citations.

Zev Rymer received his MD with honors at Melbourne University Medical School (1962) and his PhD in Neuroscience (1973) at Monash University in Australia. After completing his residency at Prince Henry's Hospital, part of Monash University Department of Medicine (1967), he was boarded in internal medicine (FRACP). He performed postdoctoral training at the NIH with Dr. Robert Burke in the Lab of Neural Control and with James Houk, MD and Vernon Mountcastle, MD in the Department of Physiology at Johns Hopkins University Medical School. He began his independent academic career as an assistant professor of Neurosurgery and Physiology at SUNY Syracuse (1976), then moving to Northwestern University Medical and Dental Schools (1978) in Chicago, where he rose through the academic ranks to full Professor (1987) at what is now known as the Feinberg School of Medicine. Prior to his current role at SRALab, Dr. Rymer served in many academic leadership roles at Feinberg and RIC, including as the John G. Searle Chair of Rehabilitation Research (1989-2014), Vice President for Research (2008-2014) and Director of the Sensory Motor Performance Program (1987-2017).

Previous Sell Lecturers

- | | | | |
|------|--|------|---|
| 2017 | Jacqueline C. Bresnahan, PhD , San Francisco, California
<i>Modeling SCI in Animals To Understand The Human Condition, and Vice Versa</i> | 1999 | Ake Seiger, MD, PhD , Stockholm, Sweden
<i>Human Fetal CNS Tissue Transplantation to the Injured Spinal Cord</i> |
| 2016 | Steven Kirshblum, MD , West Orange, New Jersey
<i>When You Come to a Fork in the Road: Lessons Learned and a Map for the Future</i> | 1998 | Giles S. Brindley, MD , London, England
<i>Neuroprostheses in SCI</i> |
| 2015 | Michael L. Boninger, MD , Pittsburgh, Pennsylvania
<i>The Future of Neural Prosthetics in SCI</i> | 1997 | O. Lars Olson, MD , Stockholm, Sweden
<i>Spinal Cord Repair Strategies, Possibilities and Limitations</i> |
| 2014 | W. Dalton Dietrich III, PhD , Miami, Florida
<i>Protection and Repair After Spinal Cord Injury: Accomplishments and Future Directions</i> | 1996 | Charles H. Tator, MD, PhD , Toronto, Ontario
<i>Experimental and Clinical Studies of the Pathophysiology and Management of Acute SCI</i> |
| 2013 | Kristjan T. Ragnarsson, MD , New York, New York
<i>ASIA 40th Anniversary: Beginnings, Accomplishments, and Future Challenges</i> | 1995 | William C. de Groat, PhD , Pittsburgh, Pennsylvania
<i>Mechanisms Underlying the Recovery of Lower Urinary Tract Function Following SCI</i> |
| 2012 | William Bauman, MD , Bronx, New York
<i>Secondary Medical Consequences of SCI</i> | 1994 | Paul J. Reier, PhD , Gainesville, Florida
<i>Neural Tissue Transplantation and SCI: Bridging the Gap Between Basic Science and Clinical Reality</i> |
| 2010 | Andrew R. Blight, PhD , Hawthorn, New York
<i>Therapeutic Development in SCI: A View from Industry</i> | 1993 | Robert R. Menter, MD , Englewood, Colorado
<i>Aging and SCI: Exploring the Unknown</i> |
| 2009 | Jonathan R. Wolpaw, MD , Albany, New York
<i>Using Spinal Cord and Brain Plasticity in Rehabilitation: Reflex Conditioning and Brain-Computer Interfaces</i> | 1992 | John F. Ditunno, Jr., MD , Philadelphia, Pennsylvania
<i>ASIA Standards 1992: Past and Future</i> |
| 2008 | Mark Tuszynski, MD, PhD , San Diego, California
<i>Enhancing Plasticity and Regeneration after SCI: Challenges of Clinical Translation</i> | 1991 | V. Reggie Edgerton, PhD , Los Angeles, California
<i>A Physiological Basis for Development of Rehabilitative Strategies for Spinal Injured Patients</i> |
| 2007 | Arthur Prochazka, MD , Alberta, Edmonton
<i>New Technologies in SCI Management</i> | 1990 | Martin E. Schwab, PhD , Zurich, Switzerland
<i>Inhibitors of Neurite Growth: Role in CNS Regeneration</i> |
| 2006 | Volker Dietz, MD , Zurich, Switzerland
<i>Neuronal Plasticity after SCI: Present and Future Treatments</i> | 1989 | David C. Viano, PhD , Detroit, Michigan
<i>Cause and Control of SCI in Automobile Crashes</i> |
| 2005 | Claire E. Hulsebosch, PhD , Galveston, Texas
<i>Treatments for SCI: Disproving the Smith Papyrus</i> | 1988 | Bernard Towers, MD , Los Angeles, California
<i>Quadriplegia and Life Extension: Who Decides?</i> |
| 2004 | Gale G. Whiteneck, PhD , Englewood, Colorado
<i>Measuring and Modifying SCI Outcomes</i> | 1987 | Edward J. McGuire, MD , Ann Arbor, Michigan
<i>Fertility in SCI Patients</i> |
| 2003 | Barbara S. Bregman, PhD , Washington, DC
<i>Transplants and Neurotrophic Factors Increase Regeneration and Recovery of Function After SCI</i> | 1986 | John Doyle , Washington, DC
<i>Renewal with Challenge for a Specialty Disability Group: SCI</i> |
| 2002 | Michal Schwartz, PhD , Rehovot, Israel
<i>Fighting the Consequences of SCI by Harnessing the Immune System: Prospects for Therapeutic Vaccination</i> | 1985 | P. Hunter Peckham, PhD , Cleveland, Ohio
<i>The State of the Art in FES</i> |
| 2001 | Mary B. Bunge, PhD , Miami, Florida
<i>Transplant Strategies to Improve Regeneration in the Adult Spinal Cord</i> | 1984 | Albert J. Aguayo, MD , Montreal, Quebec
<i>Axonal Regeneration from the Adult Mammalian Brain and Spinal Cord</i> |
| 2000 | Susan J. Harkema, PhD , Los Angeles, California
<i>Sensory Processing by the Human Lumbosacral Spinal Cord During Locomotion: Implications for Recovery of Walking after Neurologic Injury</i> | 1983 | R. Edward Carter, MD , Houston, Texas
<i>Respiratory Function in SCI</i> |
| | | 1982 | J. Paul Thomas , Washington, DC
<i>SC Dysfunction: A Unique Model for American Medicine</i> |



The 2018 Apple Award Recipient Brian K. Kwon, MD

For Excellence in Publishing in SCI Rehabilitation Research



Brian K. Kwon, MD

Brian K. Kwon, MD, Professor in the Department of Orthopaedics at the University of British Columbia, the Canada Research Chair in Spinal Cord Injury, and the Dvorak Chair in Spine Trauma, is the recipient of ASIA's 2018 Apple Award. His paper titled **Spinal Cord Perfusion Pressure Predicts Neurologic Recovery in Acute Spinal Cord Injury** appeared in the *American Academy of Neurology* in October 2017.

The Apple Award for excellence in publishing in spinal cord injury rehabilitation literature is presented annually during the ASIA scientific meeting in recognition of the best published paper by a clinician or researcher in the preceding calendar year. The Apple Award is named in honor of David F. Apple, Jr., MD, founding member and Past President of the American Spinal Injury Association (ASIA). The award is a collaboration of three entities that were critically important to Dr. Apple during his long career in orthopaedic surgery at the Shepherd Center in Atlanta, Georgia,

where he served as founding medical director for 30 years. Dr. Apple is currently emeritus medical director of the journal *Topics in Spinal Cord Injury Rehabilitation* of which he was Editor-in-Chief from 1994-2011.

Dr. Kwon is an attending spine surgeon at Vancouver General Hospital, a Level 1 trauma center and regional referral center for spinal cord injuries (SCI). He is also a research scientist at the International Collaboration on Repair Discoveries (ICORD) and serves as Chair of the SCI Cure Committee for the Rick Hansen Institute. His primary clinical and scientific research focus is on spine trauma and spinal cord injury (SCI). Dr. Kwon has led the development of a novel large animal model of SCI and is utilizing this for both bench-to-bedside and bedside-back-to-bench translational studies. He has also led initiatives to establish a framework for how promising therapies for SCI should be evaluated in the laboratory setting prior to translation into human patients.

Christopher West, PhD

Co-Senior author on the paper **Spinal Cord Perfusion Pressure Predicts Neurologic Recovery in Acute Spinal Cord Injury** is Chris West. Dr. West is Assistant Professor and Principal Investigator at the International Collaboration on Repair Discoveries, a UBC Faculty of Medicine research center that specializes in spinal cord injury. Dr. West is an integrative physiologist with a primary focus on how the cardiovascular system responds to spinal cord injury. His research traverses the discovery science-clinical spectrum. At the discovery science level, he investigates the mechanisms that underpin the cardiac adaptations to spinal cord injury. At the clinical level, he works with patients and athletes with spinal cord injury to investigate how the cardiovascular system can be optimized to offset cardiovascular disease risk.



Christopher West, PhD

2018 Apple Award Co-Authors

Co-authors: Jordan W. Squair, MSc; Lise M. Bélanger, RN, MSN; Angela Tsang, RN; Leanna Ritchie, RN; Jean-Marc Mac-Thiong, MD, PhD, FRCSC; Stefan Parent, MD, PhD, FRCSC; Sean Christie, MD, PhD, FRCSC; Christopher Bailey, MD, MSc, FRCSC; Sanjay Dhall, MD; John Street, MD, PhD; Tamir Ailon, MD, MPH, FRCSC; Scott Paquette, MD, MEd, FRCSC; Nicolas Dea, MD, FRCSC; Charles G. Fisher, MD, MPH, FRCSC; and Marcel F. Dvorak, MD, FRCSC.

Previous Apple Award Winners

2017	Philip Popovich, PhD Columbus, Ohio	2011	Christopher D. Pritchard, PhD Boston, Massachusetts
2016	Spyridon Karadimas, MD, PhD Toronto, Ontario	2010	Anthony F. DiMarco, MD Cleveland, Ohio
2015	Meegan G. Van Straaten, PT, MSPH Rochester, Minnesota	2009	James S. Krause, PhD Charleston, South Carolina
2014	Jacquelyn J. Cragg, MPH Vancouver, British Columbia	2008	Christopher Patrick Smith, MD Houston, Texas
2013	Ralph J. Marino, MD Philadelphia, Pennsylvania	2007	Mary Jane Mulcahey, PhD Philadelphia, Pennsylvania
2012	Mark S. Nash, PhD Miami, Florida		



Children are not just small adults. They deserve specialized pediatric SCI care available at Shriners Hospitals for Children.



Shriners Hospitals
for Children®

For more information visit:
shrinershospitalsforchildren.org



2018 Vogel Award Recipient Joanne Baerg, MD



Joanne Baerg, MD

The 2018 Vogel Award Recipient is Dr. Joanne Baerg for a paper titled, **Cervical Spine Imaging for Young Children with Inflicted Trauma: Expanding the Injury Pattern**. The paper appeared in the *Journal of Pediatric Surgery* in May, 2017. Co-authors are Arul S. Thirumoorthi, Rosemary Vannix, Asma Taha, Amy Young and Alexander Zouros.

Dr. Baerg is a Professor of Surgery at Loma Linda University and a Pediatric Surgeon at Loma Linda University Medical Center. She graduated from University of British Columbia Faculty of Medicine in 1990 and has been in practice for 28 years.

The Vogel Award is given for the best paper by a clinician or researcher involved in pediatric SCI rehabilitation in the preceding calendar year. The award honors Lawrence C. Vogel, MD, a recognized world expert on SCI in children. For the past 30 years, Dr. Vogel has served as the Medical Director of the SCI Program at Shriners Hospitals for Children in Chicago. He is a Past President of ASIA.

Previous Recipients of the Vogel Award

- | | |
|------|---------------------|
| 2017 | John Shin, MD |
| 2016 | Alicia January, PhD |
| 2015 | Feng Tian, PhD |



COMING SOON! Earn CME AND CEU'S for ASIA's e-Learning Self-paced Educational Modules



Soon to be joined by new modules on Pain and Upper Extremity!
Learn more at asia-spinalinjury.org/learning



2018 Neilsen Foundation Allied Health Professional Research Award of ASIA

Anne Palermo, DPT 2018 Award Recipient

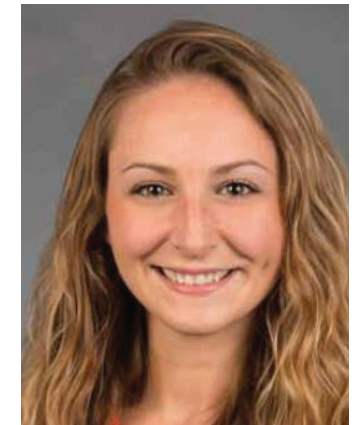


The Neilsen Foundation Allied Health Professional Research Award of ASIA is a one year award of \$25,000 to a clinician at the Master's or Clinical Doctorate level. The purpose of the award is to encourage clinicians in the field of SCI to incorporate an element of research into their professional practice.

Dr. Anne Palermo of the University of Miami has been named as the 2018 Neilsen-ASIA Research Award recipient for her study titled "**Seated Trunk Stability and Orthostatic Tolerance in SCI: Targeting the Diaphragm.**"

The Neilsen Foundation Allied Health Professional Research Award of ASIA is a one year award of \$25,000 to a clinician at the Master's or Clinical Doctorate level. The purpose of the award is to encourage clinicians in the field of SCI to incorporate an element of research into their professional practice.

Dr. Palermo received her Bachelor's in Biochemistry from Niagara University and continued to gain her Clinical Doctorate in Physical Therapy from the University of Miami. Currently, Annie is working as a licensed physical therapist at the University of Miami Hospital in the acute setting and as a research therapist at the Miami Project to Cure Paralysis. Additionally, Annie is pursuing her PhD in Physical Therapy through the University of Miami's Department of Physical Therapy in the Miller School of Medicine under her mentor Lawrence Cahalin, PhD, PT, CCS. Throughout her scholastic and professional work, Annie has been honored with the Mary McMillan Scholarship Award, Florence P. Kendall Scholarship, and a Promotion of Doctoral Studies Scholarship (PODS I) from the Foundation of Physical Therapy.



Anne Palermo, DPT

Past Recipients of the Neilsen/ASIA Research Award

2017 Sara Kate Frye, MS OTR/L ATP, of the University of Maryland Rehab Institute received the Neilsen Foundation Allied Health Professional Research Award for her study entitled "Evaluation of Splinting in Tetraplegia."

2017 Meegan Van Straaten, PT, MSPH, of the Mayo Clinic also received the 2017 Neilsen Foundation Allied Health Professional Research Award. Ms. Van Straaten received \$25,000 for her study "The Effectiveness of a Performance and Nutrition Program for Adapted Athletes."

2015 Anne Bryden, then a PhD candidate, received the award for her project entitled "The Development of a Novel Upper Extremity Assessment Protocol for Acute Tetraplegia." Ms. Bryden received her \$25,000 research award during the Awards Presentation session at the 2015 ASIA and ISCoS combined meeting in Montreal.

SCI experts positioned to help you with your next clinical trial.



DP Clinical offers

- A full service contract research organization (CRO) focused on spinal cord injury (SCI) clinical research
- Over 25 years of experience conducting acute and chronic SCI clinical trials
- SCI work started on the benchmark study of Sygen® (GM1) – the gold standard SCI trial
- Expertise includes drugs, devices, autologous and stem cells
- Strong relationships with SCI leaders and key professionals
- A team that will be a strategic partner, knowledgeable in SCI clinical outcomes and efficacy assessments.

If you are looking for an experienced SCI partner to help you with your next clinical trial, contact DP Clinical.

Your Partner in Success

ASIA 2018 Annual Meeting Pre-course

PRE-COURSE

Non-Traumatic Myelopathy 2018

Mayo Clinic - Siebens Building - Subway Level - 104 (Hage Atrium)

Tuesday, May 1

7:00 AM - 11:00 AM	Registration
7:30 AM - 8:00 AM	Breakfast with Exhibitors
8:00 AM - 10:00 AM	<p>SESSION ONE: The Diagnosis and Medical Management of Non-traumatic Myelopathy in 2018 Inflammatory Disease of the Spinal Cord</p> <ul style="list-style-type: none"> • Non-Traumatic Myelopathy Overview, 2018 - Ronald K. Reeves, MD • Evolving World of Inflammatory Diseases of the Spinal Cord - Brian Weinschenker, MD • The Forefront of Multiple Sclerosis - Orhun Kantarci, MD • Discussion and Questions
10:00 AM - 10:15 AM	Break
10:15 AM - 12:15 PM	<p>SESSION TWO: Diagnosis and Management of Other Spinal Cord Diseases</p> <ul style="list-style-type: none"> • Spinal Cord Imaging Pearls to Distinguish Spinal Cord Diseases - Felix Diehn, MD • State of the Art Management of Infections of the Spinal Cord - Raymond Razonable, MD • Nutrition and Metabolic Myelopathy Evaluation and Management, 2018 - Neeraj Kumar, MD • Discussion and Questions
12:15 PM - 1:15 PM	Lunch on Your Own
1:15 PM - 3:35 PM	<p>SESSION THREE: Procedural Interventions for Non-Traumatic Myelopathy, 2018 Advances in the Procedural Treatment of Myelopathy</p> <ul style="list-style-type: none"> • Afternoon Introduction - Eimear Smith, MD, MSc, FRCPI • The Potential of Spinal Cord Injury Stem Cell Therapy - Mohamad Bydon, MD • Neuroradiological Interventions in the Management of Spinal Diseases - John Wald, MD • Management of Spinal Cord Vascular Malformations - Giuseppe Lanzino, MD • Discussion and Questions
3:35 PM - 3:50 PM	Break
3:50 PM - 5:20 PM	<p>SESSION FOUR: Spinal and Spinal Cord Tumor Surgery</p> <ul style="list-style-type: none"> • Advances in the Management of Primary and Metastatic Spinal Tumors: Resection and Reconstruction - Peter Rose, MD • Frontiers in Spinal Cord Tumor Surgery - Michelle Clark, MD • Discussion and Questions
5:20 PM	Conclusion
6:00 PM - 8:00 PM	<p>Welcome Reception</p> <p style="text-align: right;">Mayo Clinic - Siebens Building - Subway Level 104 (Hage Atrium)</p>



2018 Annual Scientific Meeting

MAY 2-4, 2018

MAYO CIVIC CENTER · ROCHESTER, MINNESOTA

Meeting Schedule

Journal numbering is indicated as follows: P = Poster, O = Oral and C = Course

Rooms are color coded as:

- Conference Room 101
 - Conference Room 114
 - Conference Room 110-113
- Conference Room 104
 - Conference Room 108
 - Grand Lobby South
- Conference Room 106
 - Conference Room 109
 - Grand Lobby South & West

A conference map is available on the ASIA Mobile Meeting Guide at asiammg.societyhq.com.

Wednesday, May 2

6:00 AM - 6:00 PM	Registration					Grand Lobby South
7:00 AM - 8:00 AM	Mentor/Mentee Breakfast	Conference Room 108	Breakfast with Exhibitors			Conference Rooms 110-113
8:00 AM - 8:15 AM	Welcome and Introduction - Keith E. Tansey, MD, PhD					Conference Room 104
8:15 AM - 8:45 AM	Opening Session: Lifetime Achievement Award – Mary Barlett Bunge, PhD and the late Richard P. Bunge, MD Presented by Naomi Kleitman, PhD					Conference Room 104
8:45 AM - 9:30 AM	Sell Lecture: Restoration of Motor Function in Persons with Chronic Spinal Cord Injury – A Potential Therapeutic Role for Acute Intermittent Hypoxia - Guest Speaker: Zev Rymer, MD, PhD					Conference Room 104
9:30 AM - 10:30 AM	P/1 - P/54 Poster Session One and Coffee Break with Exhibitors					Grand Lobby South & West
10:30 AM - 11:00 AM	Partner Recognition and Neilsen Foundation Allied Health Professional Research Award of ASIA					Conference Room 104
11:00 AM - 12:00 PM	Can Rehabilitation Increase Strength and Motor Recovery Following SCI? Keynote Speaker: Professor Lisa Harvey					Conference Room 104
12:00 PM - 1:15 PM	Lunch					
1:15 PM - 1:30 PM	Stretch Break/Transfer to Next Session					
1:30 PM - 3:00 PM	C/55 Conference Room 104 COURSE SCI-HIGH – Moving Best Practices with Indicator Implementation for Individuals with Spinal Cord Injury During Rehabilitation Care and in the Community Cathy B. Craven, MD Mark Bayley, MD, FRCPC Heather Flett, BA, BSc (PT), MS Sander Hitzig, PhD	C/59 Conference Room 106 COURSE Assessment and Treatment of Neuropathic Pain After Spinal Cord Injury from Bench to Bedside Thomas Bryce, MD Eva Widerstrom-Noga, DDS, PhD Norbert Weidner, MD; Eldon Loh, MD	C/58 Conference Room 101 COURSE The Importance of Tissue Perfusion in Acute and Chronic Spinal Cord Injury: New Findings in Animal and Human Models Laura Krisa, PhD Christopher West, PhD Jill M. Wecht, EdD James Guest, MD, PhD, FACS Marios Papadopoulos, MD Ona E. Bloom, PhD Linda Jones, PT	C/57 Conference Room 109 COURSE Training on the Administration, Scoring and Interpretation of the Spinal Cord Injury-Functional Index and the Pediatric Spinal Cord Injury Activity Measure MJ Mulcahey, PhD, OTR/L Mary Slavin, PhD, PT Christina Calhoun Thielen, MSPT	C/56 Conference Room 114 COURSE Human Rights and Access to Technology by People with Spinal Cord Injury Anne Bryden, MD, OTR/L Brian Gran, PhD Kim Anderson-Erisman, PhD Megan Moynahan, MS Jennifer French, MBA	
3:00 PM - 3:30 PM	Refreshments Break with Exhibitors					Conference Rooms 110-113

3:30 PM - 4:30 PM	C/69 <i>Conference Room 104</i> COURSE (3:30 PM - 4:45 PM) SCOPE Clinical Trials 360° Sponsored by the Spinal Cord Outcomes Partnership Endeavor (SCOPE) <i>Moderator: Daniel Lammertse, MD</i> Steve Casha, MD, PhD Norbert Weidner, MD George Maynard, PhD Wenchun Qu, MD, PhD Randy Trumbower, PT, PhD P. Hunter Peckham, PhD Linda Jones, PT	C/60 <i>Conference Room 106</i> COURSE Endocrine Metabolic Disease Risk – Moving from Concept to Clinical Trial Application Cathy B. Craven, MD Kim Anderson-Erisman, PhD Mark Nash, PhD	O/62 - O/67 <i>Conference Room 101</i> GENERAL SESSION Basic and Translational Research <i>Moderator: Anthony J. Windebank, MD</i> <ul style="list-style-type: none"> • Applications for 2D and 3D Configurations of Hybrid OPF+ Scaffolds to Investigate Neuroregeneration in Vitro and in Vivo Following Spinal cord Injury Ahad M. Siddiqui, PhD • B2-adrenoreceptor-mediated Mitochondrial Biogenesis for the Treatment of Spinal Cord Injury Marjorie Morgan, LPTA Natalie Scholpa, PhD • Lipoxin A4 and Resolvin D1 Preserve Neural Inductive Capacity of Dental Pulp Stem Cells Cultured under Inflammatory Conditions - Implications for SCI Stem Cell Therapy Leslie Morse, DO • Neuroprotective Effects of Spirulina Platensis on The Spinal Cord Following Spinal Cord Injury in Rat Models: Locomotor Activity and Ultrastructural Study Dauda Abdullahi, M.Med.Sc • Placental Mesenchymal Stromal Cells Improve Forelimb Motor Function in a Rodent Cervical Spinal Cord Contusion Model Melissa Vanover, MD • The Use of Embedded Optical Fibers to Assess the Transient Compression Distribution at Key Locations of an Instrumented Spinal Cord Surrogate Jean-Marc Mac-Thiong, MD, PhD 	C/61 <i>Conference Room 109</i> COURSE Pediatric Spinal Cord Injury:Quality of Life Enhancement Through Learning to Eat and Speak Again Kayla Maldonado, MS, CCC-SLP, CBIS Katy Peck, MA, CCC-SLP, CBIS	C/68 <i>Conference Room 114</i> COURSE The Role of Upper Extremity Surgery in Patients with Tetraplegia Peter C. Rhee, DO, MS Kristin Garlanger, DO Ronald K. Reeves, MD Johanna Wangdell, OT	
4:30 PM - 4:45 PM	Stretch Break/Transfer to Next Session					
4:45 PM - 5:45 PM	C/70 COURSE Point/Counterpoint: Opposing Views – Urology Re-use of Catheters: Yea or Nay? Andrei Krassioukov, MD, PhD, FRCPC; Michael Kennelly, MD, FACS, FPMRS; Matthias Walter, MD, FEBU					<i>Conference Room 104</i>

- CONTINUED -

Thursday, May 3

6:00 AM - 6:00 PM	Registration					Grand Lobby South
6:30 AM - 7:00 AM	Roll, Walk and Talk					Meet at Starbucks inside the Doubletree Hotel, 150 South Broadway
7:00 AM - 8:00 AM	P/71 - P/79 Case Study Sessions with Breakfast <i>Moderator: Heather Russell, PhD</i> <ul style="list-style-type: none"> • Alternative Ways to Exercise after SCI – Overground Cycling with Electrical Stimulation without Motor Assistance: Case Study - Lisa M. Lombardo, MPT • 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 - Liza McHugh, DPT • Bariatric Surgery For Morbid Obesity In Patient With Spinal Cord Injury – A Longitudinal Follow-up Samford Wong, MSc, PhD • Case Reports on Utilizing A Ketogenic Diet to Improve Neuro-Recovery and Metabolism Following Spinal Cord Injury (SCI) Hammad Aslam, MD • Epidural Spinal Cord Stimulation Affects Bladder And Bowel Function: A Case Report - Matthias Walter, MD, FEBU • Interventional Pain Medicine in Spine Cord Injury Patients: Contributions to the Field - George Macrinici, MD • Surgically Implanted Nerve Cuff Electrodes Stabilize Rapidly and Preserve Chronic Nerve Health in Anatomically Challenging Locations - Ronald Triolo, PhD • Therapeutic Potential of Transcutaneous Electrical Spinal Stimulation on Upper Extremity Functions in Cervical Spinal Cord Injury: A Case Study - Fatma Inanici • Unique Rehabilitation Challenges in a Pediatric Spinal Cord Injury and Brachial Plexopathy Related to Malignancy and Subsequent Oncologic Treatment: A Case Report - Erin Conlee, MD 		Conference Room 106	Breakfast with Exhibitors	Conference Rooms 110-113	
8:00 AM - 9:30 AM	O/80 - O/85 Awards Session Papers <i>Moderator: Mark Nash, PhD</i> <ul style="list-style-type: none"> • 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 Edward Wirth III, MD, PhD • A New Distributed Neuroprosthesis Enables Hand Grasp and Trunk Posture after Cervical Spinal Cord Injury Kevin Kilgore, PhD • Combined Regenerative and Rehabilitative Approach to Promote Autonomic Recovery after Spinal Cord Injury • Feasibility and Effectiveness of Delivering an Adapted Weight Loss Intervention for People with Spinal Cord Injury Katherine Froehlich-Grobe, PhD; Rahul Sachdeva, PhD • Problem Solving and Social Support Patterns Among Family Caregivers of Adults with SCI Susan Ryerson Espino, PhD • Zest: Promoting Psychological Health of Women with SCI in the Virtual World of Second Life Heather Taylor, PhD 					Conference Room 101
9:30 AM - 10:30 AM	P/86 - P/129, P/176 Poster Session II and Coffee with Exhibitors					Grand Lobby South & West
10:30 AM - 11:30 AM	Ketogenic Diet for Spinal Cord Injury - Guest Speaker: Wolfram Tetzlaff, MD, PhD					Conference Room 104
11:30 AM - 12:30 PM	Lunch					
12:30 PM - 2:00 PM	C/132 <i>Conference Room 104</i> COURSE Stimulating Spinal Cord Injury: Moving Neuromodulation of Gait Past Proof of Principle Keith E. Tansey, MD, PhD Matthias Krenn, PhD Kendall Lee, MD, PhD	C/130 <i>Conference Room 106</i> COURSE Best Practice for Heterotopic Ossification Prevention and Management James D. Crew, MD Jennifer Hastings, PT, PhD, NCS Elissa Zakrasek, MD	C/131 <i>Conference Room 101</i> COURSE Measuring Bowel Dysfunction after SCI: Strategies and Findings Denise Tate, PhD David Tulskey, PhD Andrei Krassioukov, MD, PhD, FRCPC Marcel Post, PhD Gianna M. Rodriguez, MD	C/133 <i>Conference Room 109</i> COURSE STEEL Acute Pediatric Myelitis: Diagnosis, Differentiation and Management Sherilyn Driscoll, MD Candance Granberg, MD Brad Landry, DO Jan-Mendelt Tillema, MD	C/134 <i>Conference Room 114</i> COURSE Hands On, Evidence Based Approach to Decreasing Pain in the Upper Extremity for Individuals with Spinal Cord Injury Janelle L. Carnahan, PT, DPT, ATP Isa A. McClure, PT, MAPT Keara M. McNair, MS, OTR/L, BCPR	
2:00 PM - 2:30 PM	Refreshment Break with Exhibitors					Conference Rooms 110-113
2:30 PM - 3:15 PM	Membership Business Meeting for Current Members					Conference Room 104
3:15 PM - 3:30 PM	Stretch Break/Transfer to Next Session					- CONTINUED -

3:30 PM - 5:00 PM	C138 <i>Conference Room 104</i> COURSE The Continued Evolution of ISNCSCI – An Interactive Update Ruediger Rupp, PhD Steven Kirshblum, MD Keith E. Tansey, MD, PhD Stephen P. Burns, MD	C/135 - C/13 <i>Conference Room 106</i> COURSE Advancements in Our Understanding of Manual Wheelchair Biomechanics: Daily Life, Sports and Functional Tasks Melissa Morrow, PhD Philip S. Requejo, PhD Jill McNitt-Gray, PhD Ian Rice Beth A. Cloud, PT, DPT, PhD Alicia Koontz, PhD Brooke Slavens, PhD	C/137 <i>Conference Room 101</i> COURSE Motherhood after Spinal Cord Injury: Lactation, Breastfeeding and Autonomic Dysreflexia – Knowledge to Practice Amanda Lee, BSc Shea Hocaloski, RN, BTECHN Karen Hodge, MSW, RCSW Stacy L. Elliott, MD Andrei Krassioukov, MD, PhD, FRCPC	C/139 - C/140 <i>Conference Room 109</i> COURSE Expert Panel Discussion of Pathways to Field Testing Clinical Guidelines: Case Study on Ventilator Weaning Stephen McKenna, MD James D. Crew, MD Matthew Davis, MD Cheryl Vines, MS	C/141 <i>Conference Room 114</i> COURSE Ouch... that hurts! Understanding, Assessing and Treating Pain in Youth with Spinal Cord Injury Using a Multidisciplinary Approach (3:30 - 4:15 pm) Heather Russell, PhD Bethany Lipa, MD Kimberly Scharff, PT, DPT, PCS Madeleine Pittman, MS, OTR/L	C/142 <i>Conference Room 114</i> COURSE Yoga - A Holistic Approach to Treating Multidimensional Pain After Spinal Cord Injury/ Disorder (SCI/D) (4:15 - 5:00 pm) Keara M. McNair, MS, OTR/L, BCPR Karyn Baig, PT, DPT
5:00 PM - 5:15 PM	Stretch Break/Transfer to Next Session					
5:15 PM - 6:00 PM	ROUND ROOM ONE <i>Conference Room 104</i> Helping People with SCI Navigate Clinical Trials: From Acute Care to Living in the Community Moderators: Linda Jones, PT; Michele Towle, BS	ROUND ROOM 2 <i>Conference Room 106</i> Opportunities and Obstacles in Developing and Maintaining a Career in the Field of Spinal Cord Injury Moderators: Maureen Miner, MD; Candace Tefertiller, PT, DPT, NCS	ROUND ROOM 3 <i>Conference Room 101</i> Traumatic and Non-Traumatic Myelopathy: When are They the Same and When are They Different? Moderators: Michael Beattie, PhD; Ronald K. Reeves, MD			
6:00 PM - 6:45 PM	Awards Ceremony - Moderator: Keith E. Tansey, MD, PhD <i>Conference Room 104</i>					
7:30 PM - 9:30 PM	Presidential Reception (Exhibitors invited) <i>Maywood Stone Barn, Transportation Provided</i>					
Friday, May 4						
6:00 AM - 12:00 PM	Registration <i>Grand Lobby South</i>					
7:00 AM - 8:00 AM	Coffee With the Professor (includes breakfast) <i>Conference Room 108</i>					
8:00 AM - 9:00 AM	Tissue Engineering for Repair of Spinal Cord Injury Guest Speaker: Anthony J. Windebank, MD	<i>Conference Room 104</i>			SPINE SESSION I <i>Conference Room 114</i> Case Presentations: Surgery for Spinal Cord Injury Moderator: Jean-Marc Mac-Thiong, MD, PhD • Case Presentations: Surgical Treatment of SCI Jamie Baisden, MD; Randal R. Betz, MD Jeremy Fogelson, MD; Zachary Ray, MD • Nerve Transfer after SCI - Zachary Ray, MD	
9:00 AM - 9:15 AM	Stretch Break/Transfer to Next Session					

9:15 AM - 10:15 AM	O/143 - O/148 <i>Conference Room 104</i> GENERAL SESSION TWO Measurements and Outcomes <i>Moderator: Amy Bohn, OT</i> <ul style="list-style-type: none"> Increasing The Clinical Value of the Zones of Partial Preservation: A Quantitative Comparison of a New Definition Rule Applicable Also in Incomplete Lesions Christian Schuld, PhD Candidate Validity and Reliability of Physical Abilities and Mobility Scale (PAMS) in Children with Spinal Cord Related Paralysis - Cristina Sadowsky, MD Psychometric Properties of the Spinal Cord Independence Measure-III Self Report – Youth MJ Mulcahey, PhD, OTR/L GRASSP Version 2: A Comprehensive SCI Upper Limb Outcome Measure Sukhvinder Kalsi-Ryan, BScPT, MSc, PhD Development of the International SCI Basic Data Set for Caregivers: Capturing Data Beyond the Person With SCI/D - Carol Haywood, OTR/L Rebecca Martin, OTD, OTR/L Item Banks for Measuring the Impact of Blood Pressure Dysregulation on Health-Related Quality of Life in Persons with Spinal Cord Injury Jill M. Wecht, EdD 	O/149 - O/154 <i>Conference Room 106</i> GENERAL SESSION THREE Activity-based Therapy and Rehabilitation <i>Moderator: Lisa Harvey, Professor</i> <ul style="list-style-type: none"> Recovery After Thoracic and Lumbar Traumatic Spinal Cord Injury: The Neurological Level of Lesion Matters Eveline Brouwers, MPA The Effects of Acute Aerobic Exercise on Inflammatory Markers and Mood in Individuals with Multiple Sclerosis and Spinal Cord Injury Scott Donia Does the Functional Outcome Six Months after a Traumatic Spinal Cord Injury Predicts the Chronic Functional Outcome Twelve Months After the Injury? - Rama Chatta Jean-Marc Mac-Thiong, MD, PhD Relationships Between Specific Functional Abilities and Health-Related Quality of Life in Chronic Spinal Cord Injury - Julien Goulet Activity-based Training with Spinal Cord Epidural Stimulation for the Recovery of Standing in Individuals with Chronic Motor Complete Spinal Cord Injury - Enrico Rejc Standardized Locomotor Training Across Eight Clinical Sites: Outcomes from the Reeve Foundation NeuroRecovery Network 2005-2016 Candace Tefertiller, PT, DPT, NCS 	O/155 - O/160 <i>Conference Room 101</i> GENERAL SESSION FOUR Metabolic, Cardiovascular and Musculoskeletal <i>Moderator: Trevor A. Dyson-Hudson, MD</i> <ul style="list-style-type: none"> A Functional Electrical Stimulation Rowing Exercise Program Interrupts Expected Bone Loss After SCI Rebecca Lambach Zoledronic Acid Attenuates Bone Loss Following Complete Traumatic Spinal Cord Injury Christina V. Oleson, MD Shifting the Paradigm: Why Some Pressure Injuries May Be Unpreventable for Individuals with Spinal Cord Injury Kath Bogie, D. Phil Kristi Henzel, MD, PhD Core Temperature Lability During Heat Exposure Predicts Cognitive Performance in Persons with Spinal Cord Injury John Handrakis, PT, DPT, EdD, NCS Should We Measure or Estimate Energy Expenditure in Spinal Cord Injury Patients? A Comparison of Indirect Calorimetry and Commonly Used Predictive Equations Samford Wong, MSc, PhD Cardiac Consequences of Spinal Cord Injury: A Meta-analysis Alexandra M. Williams 	O/161 - O/166 <i>Conference Room 109</i> GENERAL SESSION FIVE Assorted Secondary Medical Complications <i>Moderator: Susan Charlifue, PhD</i> <ul style="list-style-type: none"> 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 Marjorie Morgan, LPTA Quyen Catania, PT, DPT, CWS Intravesicular Lidocaine: Pharmacodynamics and Effects on Autonomic Dysreflexia Prevention Ryan Solinsky, MD Long Term Experience with Diaphragm Pacing for Traumatic Spinal Cord Injury: Early Implantation Post Injury is More Beneficial Raymond P. Onders, MD, FACS Onabotulinumtoxin 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 Stephanie Kran Pilot Test of a SCI Virtual Coach to Improve Skin Care - Nancy K. Latham, PhD Targeting Movement Strategies to Reduce Impingement of the Rotator Cuff During Overhead Reaching in Individuals with Spinal Cord Injury Beth A. Cloud, PT, DPT, PhD 	SPINE SESSION II <i>Conference Room 114</i> Central Cord Syndrome <ul style="list-style-type: none"> Central Cord Syndrome Jamie Baisden, MD Point/Counter Point: Early or Late Surgery for Traumatic Central Cord Syndrome <i>Moderator: Andrei Krassioukov, MD, PhD, FRCPC</i> Jamie Baisden, MD; Jean-Marc Mac-Thiong, MD, PhD Non-Traumatic SCI Jeremy Fogelson, MD 	
10:15 AM - 10:30 AM	Coffee Break					Grand Lobby South
10:30 AM - 11:30 AM	C/167 <i>Conference Room 104</i> COURSE Identifying and Overcoming Barriers to Successful On-Time Completion of Clinical Trials In SCI: Protocol Design and Recruitment Perspectives Andrew Blight, PhD MJ Mulcahey, PhD, OTR/L Jane Hsieh, MSc	C/168 <i>Conference Room 106</i> COURSE Considering Neurorehabilitation with Emerging Therapies – How Does Training Effect Recovery? Megan Gill, PT, DPT, NCS Margaux Linde Meghan Joyce, PT, DPT, NCS Melanie Brennan, PT, DPT	O/169 - O/174 <i>Conference Room 101</i> GENERAL SESSION SIX Assorted Secondary Medical Complications <i>Moderator: Jeffrey Berliner, DO</i> <ul style="list-style-type: none"> A Novel Approach to Patient Education: Creating a Mobile Web Application for Patients with Spinal Cord Injury - Marwa Mekki Early Decompression Strategy is Effective in Thoracolumbar Traumatic Spinal Cord Injury with Lower Grade Residual Spinal Canal Compression Julien Goulet Electrical Nerve Block for Control of Pain and Spasticity in Spinal Cord Injury Kevin Kilgore, PhD Endogenous Cortisol Delivery Following Spinal Cord Injury: Clinical Implications Jillian Clark, PhD Impact of Barriers and Facilitators on Travel Needs Satisfaction of People with SCI - Shu Cole, PhD The EEG-Controlled Noninvasive Moregrasp Neuroprosthesis - Decoding of Multiple Natural Single Limb Movements and Multipad-Electrodes for Closed-Loop Grasp Pattern Control Ruediger Rupp, PhD 	C/175 <i>Conference Room 109</i> COURSE State Legislation to Fund Post-Acute Rehabilitation – One State's Experience Dale Hull, MD, MPA Dennis Lloyd, JD, MBA Jan Black, PT, MSPT	SPINE SESSION III <i>Conference Room 114</i> Venous Thromboembolism after Spinal Cord Injury <ul style="list-style-type: none"> Prevention and Treatment of Venous Thromboembolism after SCI William H Geerts, MD 	
11:30 AM - 11:45 AM	Closing Remarks					Conference Room 104

ASIA EXHIBITORS/SPONSORS

LOCAL HOST EXHIBITOR

Mayo Clinic

GOLD PARTNER EXHIBITOR

Vertex Pharmaceuticals Incorporated

SILVER PARTNER EXHIBITORS

Brooks Rehabilitation

DP Clinical

EXHIBITORS

ACRM
Allergan
American Board of Physical
Medicine and Rehabilitation
Aretch
ASCIP
Coloplast
EasyStand
Facing Disability

Invacare Corporation
Kessler Institute for Rehabilitation
Parker Hannifin Corporation
Restorative Therapies, Inc.
Rewalk Robotics
Synapse Biomedical, Inc.
United Spinal Association
Veterans Administration Hospital

EDUCATIONAL GRANT

Craig H. Neilsen Foundation

SPONSORS

Steel Assembly - Delegate Bag
Wings for Life - Scientific Poster Sessions

ASIA PARTNERS

DIAMOND PARTNER

Craig H. Neilsen
Foundation

GOLD PARTNER

Vertex Pharmaceuticals
Incorporated

SILVER PARTNERS

Brooks Rehabilitation

DP Clinical



**BROOKS[®]
CYBERNIC[®]**
TREATMENT CENTER

Offering robotic technology to help those with spinal cord injuries improve their ability to walk.
www.BrooksCyberdyne.org | 904.345.7162



CRAIG | UNYIELDING DETERMINATION.
EMPOWERING LIVES.

Proud Supporters
of



ASIA
AMERICAN SPINAL INJURY ASSOCIATION

3425 S. Clarkson Street
Englewood, CO 80113

craighospital.org



RANCHO LOS AMIGOS
NATIONAL REHABILITATION CENTER

Restoring Health, Rebuilding Life,
and Revitalizing Hope

**Spinal Cord Injury
System of Care**

- Acute Inpatient Rehabilitation
- Patient Centered
Medical Home for SCI
- Active Training Programs for:
M.D.'s, P.T.s, O.T.'s, Nursing,
and others
- Southern California Spinal Cord Injury
Model System

Visit us: www.ranchoresearch.org
Rancho Research Institute (RRI), Inc.
7601 East Imperial Highway, Downey, California 90242
Tel: (562) 385-8111



**One of the Nation's Best SCI Patient Care
& Research Programs**

Founded in 1986 by Edward A. Eckenhoff, MedStar National Rehabilitation Hospital's nationally-accredited Spinal Cord Injury & Disease Program utilizes the industry's latest technology. Our research partnership with Georgetown University School of Medicine, along with our multidisciplinary teams of specialists, work together to treat the most complex cases, helping patients reach their highest level of health and independence.

MedStar National
Rehabilitation Network

WE SET THE BAR. NOW WE'RE RAISING IT.

#2 IN THE NATION AND #1 IN TEXAS REHABILITATION



“TIRR Memorial Hermann leads rehabilitative medicine by providing a great example of what passionate people do when they are committed to excellence in patient care and clinical processes.”

Matthew Davis, M.D.

Clinical Medical Director, Spinal Cord Injury Program,
TIRR Memorial Hermann

Assistant professor of physical medicine and rehabilitation
(PM&R) McGovern Medical School at UTHealth

We're not merely adhering to what's expected from a leading rehabilitation hospital, our aim is to shatter that perception by raising the bar that we set on rehabilitation, research and education. For 28 consecutive years, U.S. News & World Report has named TIRR Memorial Hermann to its list of “America's Best Hospitals.” In 2017, TIRR Memorial Hermann hospital was recognized as No. 2 on the list of top rehabilitation hospitals in the nation.

ADVANCED CARE FOR OUR PATIENTS

- 75% of patients return to community
- 1.90 case mix index
- Approximately \$29 million in research funding
- Affiliated with McGovern Medical School at UTHealth and Baylor College Of Medicine

Learn more about how TIRR Memorial Hermann transforms lives at TIRR.memorialhermann.org

TIRR
MEMORIAL
HERMANN
Rehabilitation & Research
ADVANCING HEALTH

*TIRR is a registered trademark of TIRR Foundation.

Children's Healthcare of Atlanta has CARF-accredited pediatric rehabilitation services



We offer:

- CARF-accredited inpatient and day rehab services with specialty recognition in spinal cord system of care, brain injury specialty program and pediatric specialty program
- Care for patients big and small, from birth to age 21
- Board-certified pediatric physiatrists
- 28 private rooms
- Therapy seven days a week
- Day Rehabilitation Program for follow-up care
- Technology-assisted therapy through our Center for Advanced Technology and Robotic Rehabilitation

For more information or to make a referral:

404-785-2274

choa.org/rehab



Children's Healthcare of Atlanta

Three hospitals • 27 neighborhood locations • 1 million+ patient visits per year



THIS IS LIVING WITH A SPINAL CORD INJURY.



Our physicians, therapists and researchers are opening doors so individuals with spinal cord injuries can live out their dreams. Visit SpinalCordRecovery.org to learn more.



International Center for Spinal Cord Injury
at Kennedy Krieger Institute



Spinal Cord Injury care takes a team.

Let's work together.



Through education and research, AAP members are restoring quality of life to persons with disabilities — including spinal cord injury.

Here's how to learn, share and collaborate:

PHYSIATRY '19, FEBRUARY 19-23, 2019

Come together with over 1,000 practicing and in-training physiatrists in San Juan, Puerto Rico to advance education, research and patient care.

- Attend interactive sessions and workshops, with a special track on Spinal Cord Injury
- Present your innovative ideas and research in our poster gallery
- Exhibit or sponsor among the leading minds in the field of physiatry

SAVE THESE DATES!

Call for Abstracts: May 4 - August 10, 2018

Registration Opens: September 17, 2018

RENAMED. RENEWED. RENOWNED.

For more than 35 years, you've come to know Baylor Institute for Rehabilitation as the first choice in spinal cord injury rehab, as well as traumatic brain injury, stroke, multi-trauma and neurorehabilitation. As we continue our strong partnership with Baylor Scott & White Health, you'll find that same quality care under our new name:



Inpatient Hospitals | Outpatient Therapy | Home Health

Changing Rehabilitation. **For Life.**®

For more information, visit our new website at BSWRehab.com.

FOLLOW US ON: @BSWHealth | @BSWRehab

JOIN THE AAP

Become a bigger part of the physiatry community. As a member of the AAP, you'll meet passionate and innovative physicians in every career stage. You'll also have access to programs to deepen your research interests, a Virtual Campus for your MOC and CME needs, the *American Journal of Physical Medicine & Rehabilitation* and more.



Join our team at www.physiatry.org.

Physicians provide clinical services as members of the medical staff at one of Baylor Scott & White Health's subsidiary community or affiliated medical centers and do not provide clinical services as employees or agents of those medical centers, Baylor Health Care System, Scott & White Healthcare or Baylor Scott & White Health. Baylor Institute for Rehabilitation is part of a comprehensive inpatient and outpatient rehabilitation network formed through a joint venture between Baylor Institute for Rehabilitation at Gaston Episcopal Hospital and Select Physical Therapy Texas Limited Partnership BIR JV, LLP. ©2018 Baylor Scott & White Health. BSWREHAB_40_2018_KCG 3/18

INDIVIDUALIZED CARE FOR

>> SPINAL CORD INJURY PATIENTS



Mayo Clinic provides comprehensive care to thousands of patients with spinal cord injury. A collaborative team of physiatrists, neurologists, neurosurgeons, orthopedists and researchers works to provide state-of-the-art optimal care for individuals with SCI. With more than 70 physiatrists and 400 therapists, nurses, psychologists and researchers, the Mayo Clinic Department of Physical Medicine and Rehabilitation offers:

- > Basic science, translational, and clinical spinal cord injury research program
- > Inpatient, outpatient and lifelong care options
- > Advanced assistive technology to enhance functional activities
- > Spasticity management



For more information visit mayoclinic.org

WELCOME TO ROCHESTER!



Visit us at
Table #17



PHOENIX/SCOTTSDALE, ARIZONA | ROCHESTER, MINNESOTA | JACKSONVILLE, FLORIDA