

# 2025 SCIENTIFIC MEETING

## ASIA DATA SCIENCE PRECOURSE

Unlock AI's Role in Spinal Cord Injury Research!

Sunday / June 1, 2025

TIME	TITLE	MODERATOR (S)	PRESENTERS	ROOM
8:15 AM - 8:30 AM	<b>Opening Remarks</b>	Ronald James Cotton, MD, PhD Sarah Brueningk, PhD		Arizona III
8.30 AM -10:00 AM	<b>Data Science in SCI – the Hope, the Challenge, and the Current Status</b>	Dennis Bourbeau, PhD Sarah Brueningk, PhD		Arizona III
	De-Mystifying AI		Ronald James Cotton, MD, PhD	
	Where Do We Stand, Where are We Limited?		Iris Leister, PhD	
	AI in SCI the Current Status and What the Future May Bring		Adam Ferguson, PhD	
10:00 AM -10.30 AM	<b>Refreshment Break</b>			
10.30 AM -12:00 PM	<b>CONCURRENT SESSIONS</b>			
	<b>Session A: Hands-On Challenge</b> (Small Groups, Targeted for Participants New to AI and Who Want to Learn More)	Dennis Bourbeau, PhD Olga Taran, PhD	Support: Louis Lukas, MSc Miklovana Tuci, MSc	Arizona III
	What Tools are Available?	Dennis Bourbeau, PhD		
	I. Data Visualization			
	II. Coding with Large Language Models			
	III. AI Basics (Dos and Don'ts)			
	Hands-On Session			
	Discussion			
	<b>Session B: Tackling the Key Challenges in SCI AI – Technical Solutions</b> (A Session for AI Experts to Deep Dive)	Alessandro Napoli, PHD Adam Ferguson, PhD		Arizona II
	Opening: The Big Challenges in SCI Data Science		Alessandro Napoli, PhD	
	Limited Data Learning		Abel Torres Espin, PhD	
	Learning from Incomplete Data: Review of Recent Cases		Gustavo Balbinot, PhD	
	Causal Frameworks		Ronald James Cotton, MD, PhD	
	Generalization and Robustness		Sarah Brueningk, PhD	

### Reset and Relax

Need a break from the conference?

Visit ASIA's "Quiet Zone" a curated, low-lit space for relaxation and silence.

**No talking and no electronics allowed!**

Let ASIA staff members know if you would like to be escorted to the Quiet Room.



TIME	TITLE	MODERATOR (S)	PRESENTERS	ROOM
12:00 PM - 1:00 PM	<b>Lunch Break</b>			
1:00 PM - 2:30 PM	<b>Problems that Have Been Solved – Or Have We?</b>	Iris Leister, PhD Alessandro Napoli, PhD		Arizona III
	Talk 1 - Deep Learning to Measuring Hand Function in Egocentric Video - An Examination of Research vs Clinical Beeds		Jose Zariffa, PhD	
	Talk 2 - Enhancing Clinical Trial Design Using Historical Information		Miklovana Tuci, MSc	
	Talk 3 - The Synthetic Patient Generator: Initial Insights and Future Applications		Gustavo Balbinot, PhD	
	Talk 4 - Developing Models to Inform the SCI Journey: Lessons Learned and Future Directions'		Vanessa Noonan, BSc PT, MSc, PhD	
2:30 PM – 2:50 PM	<b>Refreshment Break</b>			
2:50 PM – 4:20 PM	<b>The ASIA Data Science Challenge</b>	Ronald James Cotton, MD, PhD Sarah Brueningk, PhD		Arizona III
	Background on the Challenge			
	Team 1 - Motor Score Sequences			
	Team 2 - Walking Prediction			
	<b>Moderated Discussion</b>		Panel: Invited Teams Keith Tansey, MD, PhD Abel Torres Espin, PhD Jose Zariffa, PhD Vanessa Noonan, BSc PT, MSc, PhD	Arizona III
4:20 PM - 4:30 PM	<b>Closing Summary – What Have We Learned and What is the Next Step?</b>	Ronald James Cotton, MD, PhD Sarah Brueningk, PhD		Arizona III

**Welcome Reception**  
 6:00 - 8:00 PM  
 Arizona Foyer  
 With Partners and Exhibitors



# 2025 SCIENTIFIC MEETING

## Monday / June 2

### Arizona VII-XIV (7-14)

7:00 AM - 8:00 AM	Breakfast with Partner & Exhibitors – Ballroom Foyer			
8:00 AM - 8:30 AM	<b>WELCOME/OPENING REMARKS</b> <b>Susie Charlifue, PhD, FASIA</b> (ASIA President 2024-2025) <b>Mark S. Nash, PhD, FACSM, FASIA</b> (ASIA President 2025 - 2027)			
	<b>FELLOW OF OF ASIA (FASIA) AWARD</b> <b>1. Kim Anderson-Erisman, PhD</b> <b>3. Ronald K. Reeves, MD</b> <b>2. Isa McClure, PT, MAPT</b> <b>4. Cristina L. Sadowsky, MD</b>			
8:30 AM - 9:15 AM	<b>LIFETIME ACHIEVEMENT AWARD</b> Presented by <b>Stacey Elliott, MD, FASIA</b> <b>Andrei Krassioukov, MD, PhD, FRCPC, ICORD-BCSS, FASIA</b> GF Strong Rehabilitation Centre, Vancouver, Canada			
9:15 AM - 10:00 AM	<b>SELL LECTURE: The Evolving Focus of Spinal Cord Injury Research. From Neuroregeneration to Neuroplasticity Across 30 Years.</b> <b>James David Guest, MD, PhD, FAANS, FASIA</b> Professor of Neurological Surgery, Neurosurgery and the Miami Project to Cure Paralysis, Miller School of Medicine - Miami, FL			
10:00 AM - 10:10 AM	Stretch Break / Transfer to Next Session			
10:10 AM - 11:10 AM	Partner / Exhibitor Recognition			
11:10 AM - 11:20 AM	Stretch Break / Transfer to Next Session			
	<b>Arizona VII-XIV (7-14)</b>	<b>Arizona III</b>	<b>Arizona I</b>	<b>Arizona II</b>
11:20 AM - 12:20 PM	<b>General Session 1: Sensory/Pain/Skin</b> From Mechanisms to Management: Sensory Function, Neuropathic Pain, and Pressure Injuries	<b>General Session 2: Respiratory</b> Inhale the Future, Exhale the Past	<b>General Session 3: Basic Science</b> Basic Science Approaches to Enhancing Recovery Following Spinal Cord Injury: There is Nothing Basic About it!	<b>ISNCSCI</b> How Do I Correctly Classify this ISNCSCI Exam ? Discussion of More Cases with Classification Challenges
12:20PM - 1:30PM	<b>LUNCH SYMPOSIUM</b> (Industry-Sponsored Non-CME Event) <b>Overground Personal Exoskeletons: It's a Whole New World, Current and Future Considerations</b> <b>Presented by:</b> Lifeward Director of Medical Affairs, Keith D. Rose, MD, and Previous ASIA President & Lifeward Director of Clinical Research, Keith E. Tansey, MD, PhD, FASN, FASIA			Sponsored by 
1:30 PM - 2:30 PM	<b>Course 1 TRIP</b> Potential for Gabapentinoids as Agents for Neurorestoration: Clinical and Research Considerations	<b>Course 2 TRIP</b> Aging and Spinal Cord Injury: From Mechanisms to Quality of Life	<b>Course 3</b> Filling the Gaps: Designing and Implementing Innovative Approaches to Community Integration After SCI	<b>ISAFSCI</b> International Standards to Document Autonomic Function following SCI (ISAFSCI): Case Discussion
2:30 PM - 3:30 PM	* <b>POSTER SESSION 1</b> – Arizona IV-VI *			
2:30 PM - 3:30 PM	Break with Partners & Exhibitors			
3:30 PM - 4:30 PM	<b>Course 4</b> Unveiling Strength: Progress and Perspectives in Research on Women with Spinal Cord Injury	<b>Course 5</b> Disease Prognosis and Outcome Prediction In Spinal Cord Injury	<b>Course 6 TRIP</b> Don't Get TRIPped Up – Disentangling the Effects of Rehabilitation in Clinical Translation of Preclinical Research	
4:30 PM - 5:30 PM	<b>EARLY CAREER * EARLY CAREER * EARLY CAREER Spinal Tap: "Tapping into Industry"</b> Making a path from Academia, Clinical, Engineering, etc. to Industry. Join Us for an Informal Discussion with Industry Leaders			

## Tuesday / June 3

### Arizona VII-XIV (7-14)

7:00 AM - 8:00 AM	Breakfast with Partner & Exhibitors – Ballroom Foyer			
8:00 AM - 9:30 AM	<b>AWARDS SESSIONS / Oral Presentations / TOP 6</b>			
	Prognostic Value of Tissue Bridges in Cervical Spinal Cord Injury: A Longitudinal, Multicenter, Retrospective Cohort Study			Dario Pfyffer, PhD
	The Association Between Mean Arterial Blood Pressure Augmentation and Intraparenchymal Hemorrhage After Acute Human Spinal Cord Injury			Brian Kwon, MD, PHD, FRCS, FASIA
	The Effects of Targeting Spinal Cord Perfusion Pressure Through Cerebrospinal Fluid Drainage in Acute Spinal Cord Injury			Cameron Gee, PhD
	Upper Extremity Function Classification for Tailored Rehabilitation in Cervical Spinal Cord Injury: Novel Insights from a Nationally Diverse Cohort			Jia Liu, PhD
	Data-Driven Characterization of The Spinal Cord Injury Landscape: An Analysis of The EMSCI Database Using Graph-Based Clustering			Louis Philipp Lukas, MSc
	Ventral Epidural Stimulation Restores Forelimb Function and Promotes a Lesion Repair Microglial Phenotype after Cervical Spinal Cord Injury			Philip Horner, PhD
	<b>Craig H. Neilsen 2022 Award Update: Reversing the Trend:</b>			
	Clinical Strategy to Reduce Incidence and Impact of Wheelchair Repairs in Spinal Cord Injury Rehabilitation			Blake Edwin Perkins, PT, DPT, ATP
9:30 AM - 10:30 AM	<b>KEYNOTE TALK</b>			
	<b>Engineering the Future of Acute Spinal Cord Injury</b>			
	<b>Nicholas Theodore, MD, FACS, FAANS</b>			
	Professor of Neurosurgery, Orthopaedic Surgery and Biomedical Engineering / Johns Hopkins University School of Medicine			
10:30 AM - 10:40 AM	Stretch Break / Transfer to Next Session			
	<b>Arizona VII-XIV (7-14)</b>	<b>Arizona III</b>	<b>Arizona I</b>	<b>Arizona II</b>
10:40 AM - 11:40 AM	<b>General Session 4: Measurements &amp; Outcomes</b> If You are Not Measuring, You are Just Practicing	<b>General Session 5: Cardiovascular</b> Getting to the Heart of the Issue: SCI Cardiovascular Topics	<b>General Session 6: Clinical Trial Updates</b> Clinical Trials: What's the Latest and When Will it Get Here?	<b>(TSCIR)</b> Topics in Spinal Cord Injury and Rehabilitation
11:40 AM - 1:00 PM	<b>SPONSORED LUNCH</b> (Industry-Sponsored Non-CME Event)			Sponsored by 
1:00 PM - 2:00 PM	<b>Course 7</b> Age Effects: The Impact of Aging Population on the Epidemiology of Traumatic Spinal Cord Injuries, Older Age on Individuals' Recovery, and Individuals Aging after Injury	<b>Course 8</b> A Bird's Eye Meta-View on Spinal Cord Injury Research: What Can we Learn from Researching How We Do Research (Sponsored By SCOPE)	<b>Course 9 </b> Solving the Post-SCI Neuropathic Pain Problem: Can What We Learn from Animal Models Really Translate to the Human Experience of Chronic Pain?	
2:00 PM - 3:00 PM	* <b>POSTERS SESSION 2</b> – Arizona IV-VI *			
2:00 PM - 3:00 PM	Break with Partners & Exhibitors			



# 2025 SCIENTIFIC MEETING

## Tuesday / June 3

### Arizona VII-XIV (7-14)

### Arizona III

### Arizona I

### Arizona II

3:00 PM - 4:00 PM

**General Session 7:  
Activity-Based Training**  
Get Up and Get Moving:  
Importance and Challenges of  
Movement and Exercise to Improve  
Outcomes in Acute through Chronic  
Stages of SCI

**General Session 8: Psychosocial**  
Navigating the SCI Landscape:  
The Interplay of Health, Technology,  
and Social Factors

**General Session 9:  
Mixed Papers 1**  
Risk-y Business in SCI: Predictive  
Analytics and Practical Aspirations

**ISNCSCI**  
New Version 2 of the  
Expedited-ISNCSCI  
Exam

4:00 PM - 4:10 PM

Stretch Break / Transfer to Next Session

4:10 PM - 5:10 PM

**Course 10**  
Diagnosis and Management of  
Lower Extremity Bone Loss in  
Persons with Acute and Chronic  
Spinal Cord Injury

**Course 11**  
Advancing Innovative Practices in  
SCI Rehabilitation: Combining  
Neuromodulation Therapies to  
Enhance Functional Recovery

**Course 12 **TRIP****  
Strategies Across the Translational  
Spectrum to Improve Recovery  
after SCI

**ISAFSCI**  
International Standards  
to Document Autonomic  
Function following SCI (ISAFSCI):  
Case Discussion

# Presidents Reception

Drinks, Desserts, and  
A Drone Light Show

Tuesday, June 3

8:00-10:00 PM

Palm Grove

## Wednesday / June 4 **Arizona VII-XIV (7-14)**

7:00 AM - 8:00 AM	Membership Breakfast – Arizona II		
8:00 AM - 9:00 AM	<b>AWARDS SESSION</b> – Arizona VII - XIV (7-14) Neilsen Foundation Allied Health Professional Research Award of ASIA / Anthony F. DiMarco MD Award Apple Award / Vogel Award / Mulcahey Award / TRoHNS Award / Top 3 Oral Talk Awards / Top 3 Poster Awards / Early Career Awards		
	<b>Arizona VII-XIV (7-14)</b>	<b>Arizona III</b>	<b>Arizona I</b>
9:00 AM - 10:00 AM	<b>Course 13</b> <b>TRIP</b> Spinal Stimulation: Bridging the Gap Between Research and Clinical Translation	<b>General Session 10</b> Mixed Papers 2: Movin', Eatin', and Livin' Right!	<b>Course 14</b> UE Step: Development, Implementation, and Early Access Preview
10:00 AM - 10:10 AM	Stretch Break / Transfer to Next Session		
10:10 AM - 11:10 AM	<b>Course 15</b> The Common Thread of Struggle after SCI: How Can Policy Unravel the Ties that Bind People with SCI, their Support Persons, and Rehabilitation Professionals from Achieving the Shared Goal of Societal Participation?	<b>Course 16</b> <b>TRIP</b> Learning How to Use Spinal Cord Neuromodulation to Activate Propriospinal Neurons and Sympathetic Targets to Improve	<b>Course 17</b> The Good, The Bad, The Ugly: AI for SCI Clinicians
11:10 AM - 12:30 PM	Lunch		
12:30 PM - 1:30 PM	<b>Course 18</b> Accessible Airline Travel: Updates and Advancements in Engineering, Policy and Rehab Medicine	<b>Course 19</b> Path to Recovery after Spinal Cord Injury: Priorities, Personal Experience and Potential Predictors	<b>Course 20</b> <b>TRIP</b> Boosting Lower Limb Recovery after Spinal Cord Injury: The Role of Non-Invasive Electrical Stimulation and Activity-Based Therapies
1:30 PM - 1:40 PM	Stretch Break / Transfer to Next Session		

# 2025 SCIENTIFIC MEETING

Wednesday / June 4

Arizona VII-XIV (7-14)

Arizona III

Arizona I

1:40 PM - 2:40 PM

**Course 21**

Windows into Daily Life after SCI: Protocols for Egocentric Video and Photovoice Data Collection

**Course 22** **TRIP**

Consensus Statements Regarding the Use of Blood Bone Biomarkers in Human and Animal Models of Spinal Cord Injury: Systematic Review & E-Delphi Consensus Methods from the ReCON Team

**Course 23**

From Patients to Models and Back. The Use of Real-World Data to Model the Complexity of SCI Through the Patient Journey

2:40 PM - 2:50 PM

Stretch Break / Transfer to Next Session

2:50 PM - 3:50 PM

**Course 24**

Length of Stay Following Spinal Cord Injury: Associations with Predictors, Outcomes, and Stakeholders Experiences in Inpatient Rehabilitation

**Course 25**

The Art of Diagnosis: Navigating Uncertainty in Myelopathy Cases

**Course 26** **TRIP**

Using Neuromodulation to Understand and Improve Neurogenic Bowel Dysfunction after Spinal Cord Injury (SCI)

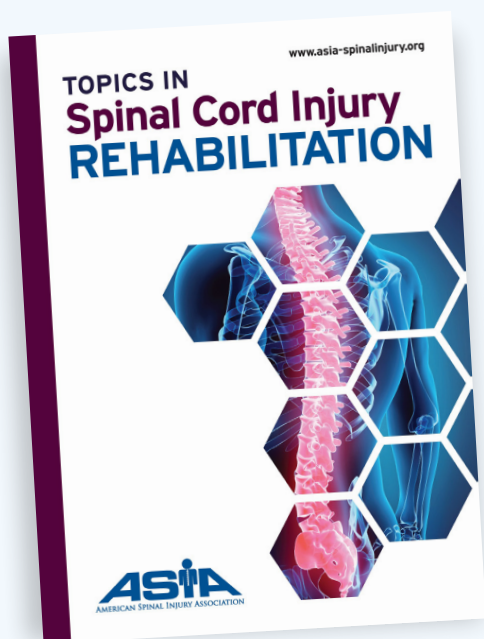
MEETING ADJOURNED

## Topics in Spinal Cord Rehabilitation

Topics in Spinal Cord Injury Rehabilitation (TSCIR) is an interdisciplinary journal devoted to the study and dissemination of practical and theoretical information related to the subject of spinal cord injury rehabilitation.



The TSCIR Online Archive is fully indexed and includes all articles from 1997 to present. ASIA members receive complimentary subscriptions to TSCIR!



# 2025 SCIENTIFIC MEETING

## COURSES **Monday / June 2, 2025**

COURSE	COURSE CHAIR/MODERATOR	PRESENTERS
<b>COURSE 1</b> <b>TRIP</b> Potential for Gabapentinoids as Agents for Neurorestoration: Clinical and Research Considerations	James Wilson, DO	Andrea Tedeschi, PhD John Kramer, PhD Kim Anderson-Erisman, PhD, FASIA Mike Kelly, MD
<b>COURSE 2</b> <b>TRIP</b> Aging and Spinal Cord Injury: From Mechanisms to Quality of Life	Monica Perez, PT, PhD	Cedric Geoffroy, PhD John C. Gensel, PhD Jennifer Coker, PhD James Krause, PhD Monica Perez, PT, PhD
<b>COURSE 3</b> Filling the Gaps: Designing and Implementing Innovative Approaches to Community Integration After SCI	Keara McNair, MS, OTR/L, BCPR, ATP	Denise Fyffe, PhD Cassandra Boyd, OTD Monifa Brooks, MD Keara McNair, MS, OTR/L, BCPR, ATP
<b>COURSE 4</b> Unveiling Strength: Progress and Perspectives in Research on Women with Spinal Cord Injury	Jennifer Coker, PhD, MPH, FASIA	Chloe Slocum, MD, MPH Heather Taylor, PhD Yuying Chen, MD, PhD, FACRM, FASIA
<b>COURSE 5</b> Disease Prognosis and Outcome Prediction In Spinal Cord Injury	Sarah Brüningk, PhD	Abel Torres Espin, PhD Olga Taran, PhD Adam Ferguson, MS, PhD Sarah Brüningk, PhD
<b>COURSE 6</b> <b>TRIP</b> Don't Get TRIPped Up – Disentangling the Effects of Rehabilitation in Clinical Translation of Preclinical Research	Edelle Field-Fote, PT, PhD, FASIA, FAPTA	Edelle Field-Fote, PT, PhD, FASIA, FAPTA Kim Anderson-Erisman, PhD, FASIA David Magnuson, PhD, FASIA

# COURSES **Tuesday / June 3, 2025**

COURSE	COURSE CHAIR/MODERATOR	PRESENTERS
<b>COURSE 7</b> Age Effects: The Impact of Aging Population on the Epidemiology of Traumatic Spinal Cord Injuries, Older Age on Individuals' Recovery, and Individuals Aging after Injury	Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN, FASIA	Vanessa Noonan, MD, DO, PhD Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN, FASIA Sunil Sabharwal, MD
<b>COURSE 8</b> A Bird's Eye Meta-View on Spinal Cord Injury Research: What Can we Learn from Researching How We Do Research (Sponsored By SCOPE)	Paulina Scheuren, PhD	John L. K. Kramer, PhD Paulina Scheuren, PhD Jan Schwab, MD, PhD Abel Torres Espin, PhD
<b>COURSE 9</b> <b>TRIP</b> Solving the Post-SCI Neuropathic Pain Problem: Can What We Learn from Animal Models Really Translate to the Human Experience of Chronic Pain?	Elizabeth R. Felix, PhD	Elizabeth R. Felix, PhD Stanislava Jergova, PhD Thomas N Bryce, MD
<b>COURSE 10</b> Diagnosis and Management of Lower Extremity Bone Loss in Persons with Acute and Chronic Spinal Cord Injury.	Brittany Snider, DO	Christopher M. Cirnigliaro, PhD Cristina Sadowksy, MD, FASIA B. Catharine Craven, BA, MD, MSc, FRCPC, FASIA, FCAHS
<b>COURSE 11</b> Advancing Innovative Practices in SCI Rehabilitation: Combining Neuromodulation Therapies to Enhance Functional Recovery	Rebecca Martin, OTR/L, OTD	Rebecca Martin, OTR/L, OTD Randy D. Trumbower, PT, PhD Elizabeth Neighbors, PT, DPT
<b>COURSE 12</b> <b>TRIP</b> Strategies Across the Translational Spectrum to Improve Recovery after SCI	Meifan Chen, PhD	Meifan Chen, PhD Jennifer Dulin, PhD Kajana Satkunendrarajah, PhD Dana McTigue, PhD Monica Perez, PT, PhD

# 2025 SCIENTIFIC MEETING

## COURSES **Wednesday / June 4, 2025**

COURSE	COURSE CHAIR/MODERATOR	PRESENTERS
<b>COURSE 13</b> <b>TRIP</b> Spinal Stimulation: Bridging the Gap Between Research and Clinical Translation	Megan Gill, PT, DPT, NCS	Megan Gill, PT, DPT, NCS Candace Tefertiller, PT, DPT, PhD, NCS Chet Moritz, PhD
<b>COURSE 14</b> UE Step: Development, Implementation, and Early Access Preview	Amy Bohn OTR/L, CPAM, FASIA	Amy Bohn OTR/L, CPAM, FASIA Isa McClure PT, MAPT Marissa Malady OTR/L
<b>COURSE 15</b> The Common Thread of Struggle after SCI: How Can Policy Unravel the Ties that Bind People with SCI, their Support Persons, and Rehabilitation Professionals from Achieving the Shared Goal of Societal Participation?	Anne Bryden, PhD, OTR/L	Kim Anderson-Erisman, PhD, FASIA Susan Hinze, PhD Tanjulla Tyson-Wearren, MSSA Brian Gran, PhD
<b>COURSE 16</b> <b>TRIP</b> Learning how to use Spinal Cord Neuromodulation to Activate Propriospinal Neurons and Sympathetic Targets to Improve Functions Impaired by SCI?	Linda Jones, PT, PhD	Linda Jones, PT, PhD Noam Harel, MD, PhD Jill M. Wecht, BS, MS, EdD Jeremy W. Chopek, BSc, MSc, PhD Kristine C. Cowley, BSc, PhD
<b>COURSE 17</b> The Good, Bad, and Ugly of AI	Ronald James Cotton, MD, PhD	Ronald James Cotton, MD, PhD Ryan Solinsky, MD Jose Zariffa, PhD
<b>COURSE 18</b> Accessible Airline Travel: Updates and Advancements in Engineering, Policy and Rehab Medicine	Niña Carmela R. Tamayo, DO, MS, MPH	Alexandra Bruce, OTD, OTR/L Capt. Sheyna Gifford, MD, MPH, MBA, MS, MA, USAF Jessica Presperin Pedersen, OTD, BSOT, MBA, FAOTA, ATP/SMS Sivashankar Sivakanthan, PhD
<b>COURSE 19</b> Path to Recovery after Spinal Cord Injury: Priorities, Personal Experience and Potential Predictors	Andrei Krassioukov, MD, PHD, FRCPC,	Andrei Krassioukov, PhD, MD, FRCPC, ICORD-BCSS, FASIA ICORD-BCSS, FASIA Raza Malik, PhD Rahul Sachdeva, PhD Mujtaba Saloojee



# COURSES **Wednesday / June 4, 2025**

COURSE	COURSE CHAIR/MODERATOR	PRESENTERS
<b>COURSE 20</b> <b>TRIP</b> Boosting Lower Limb Recovery after Spinal Cord Injury: The Role of Non-Invasive Electrical Stimulation and Activity-Based Therapies	Kristin Musselman, PT, PhD	Marie-Pascale Côté, PhD Kei Masani, PhD Kristin Musselman, PT, PhD
<b>COURSE 21</b> Windows into Daily Life after SCI: Protocols for Egocentric Video and Photovoice Data Collection	Jose Zariffa, PhD, PEng	Kristin Musselman, PT, PhD Olga Taran, PhD
<b>COURSE 22</b> <b>TRIP</b> Consensus Statements Regarding the use of Blood Bone Biomarkers in Human and Animal Models of Spinal Cord Injury: Systematic Review & E-Delphi Consensus Methods from the ReCON Team	B. Catharine Craven, BA, MD, MSc, FRCPC, FASIA, FCAHS	B. Catharine Craven, BA, MD, MSc, FRCPC, FASIA, FCAHS Kristine Cowley, BSc, PhD Philemon Tsang, PhD
<b>COURSE 23</b> From Patients to Models and Back. The Use of Real-World Data to Model the Complexity of SCI Through the Patient Journey	Abel Torres Espin, PhD	Abel Torres Espin, PhD John Chernesky Vanessa Noonan, MD, DO, PhD Marzieh Mussavi Rizi
<b>COURSE 24</b> Length of Stay Following Spinal Cord Injury: Associations with Predictors, Outcomes, and Stakeholders Experiences in Inpatient Rehabilitation	Sherri L. LaVela, PhD, MPH, MBA	Alex W.K. Wong, PhD, DPhil Sherri L. LaVela, PhD, MPH, MBA Allen W. Heinemann, PhD
<b>COURSE 25</b> The Art of Diagnosis: Navigating Uncertainty in Myelopathy Cases	Cristina Sadowsky, MD, FASIA	Keara McNair, MS, OTR/L, BCPR, ATP Ronald Reeves, MD, FASIA Cristina Sadowsky, MD, FASIA Brittany Snider, DO
<b>COURSE 26</b> <b>TRIP</b> Using Neuromodulation to Understand and Improve Neurogenic Bowel Dysfunction after Spinal Cord Injury (SCI)	Kim Anderson-Erisman, PhD, FASIA	Kim Anderson-Erisman, PhD, FASIA Cedric Geoffrey, PhD Robert Hoey, PhD Dennis Bourbeau, PhD

# 2025 SCIENTIFIC MEETING

## GENERAL SESSIONS

### Award-Eligible Oral Presentations

TUESDAY JUNE 3, 2025 / 8:00 AM - 9:30 AM

Moderator: Steven W. Brose, DO

AWARD-ELIGIBLE ORAL PRESENTATIONS	PRESENTERS
Prognostic Value of Tissue Bridges in Cervical Spinal Cord Injury: A Longitudinal, Multicenter, Retrospective Cohort Study	Dario Pfyffer, PhD
The Association Between Mean Arterial Blood Pressure Augmentation and Intraparenchymal Hemorrhage After Acute Human Spinal Cord Injury	Brian Kwon, MD, PHD, FRCSC, FASIA
The Effects of Targeting Spinal Cord Perfusion Pressure Through Cerebrospinal Fluid Drainage in Acute Spinal Cord Injury	Cameron Gee, PhD
Upper Extremity Function Classification for Tailored Rehabilitation in Cervical Spinal Cord Injury: Novel Insights from a Nationally Diverse Cohort	Jia Liu, PhD
Data-Driven Characterization of The Spinal Cord Injury Landscape: An Analysis of The EMSCI Database Using Graph-Based Clustering	Louis Philipp Lukas, MSc
Ventral Epidural Stimulation Restores Forelimb Function and Promotes a Lesion Repair Microglial Phenotype after Cervical Spinal Cord Injury	Philip Horner, PhD
<b>Craig H. Neilsen 2022 Award Update: Reversing the Trend:</b> Clinical Strategy to Reduce Incidence and Impact of Wheelchair Repairs in Spinal Cord Injury Rehabilitation	Blake Edwin Perkins, PT, DPT, ATP

### MONDAY JUNE 2, 2025 *All Program times are in Mountain Standard Time (MST)*

ORAL PRESENTATIONS	PRESENTERS
<b>GENERAL SESSION 1: Sensory/Pain/Skin: From Mechanisms to Management: Sensory Function, Neuropathic Pain, and Pressure Injuries</b> 11:20 AM - 12:20 PM / Moderator: Paulina Scheuren, PhD • Co-Moderator: Abel Torres Espin, PhD	
A Consumer Perspectives and Effects of a Multimodal Pain Program on Spinal Cord Injury Related Pain	Eva Widerstrom-Noga, DDS, PhD, FASIA
Nociceptor-Driven SCI-Induced Neuropathic Pain	Norbert Weidner, MD
Validity and Reliability of a Fully Automated Computer-Controlled Electrical Perceptual Threshold System for Sensory Assessment in Individuals with Spinal Cord Injury	Siti Nurfaezah Binti Zahari
Development and Testing of an Automated Computer-Controlled Electrical Perceptual Threshold Device for Sensory Assessment in Individuals with Spinal Cord Injury	Siti Nurfaezah Binti Zahari
Opportunities for Health System Improvement: Concerning Trends in Pressure Injury Prevalence at Rehab Admission Despite Reductions in Pressure Injury Incidence During Inpatient Rehabilitation	B. Catharine Craven, BA, MD, MSc, FRCPC, FASIA, FCAHS
A Proof-Of-Concept Study of Cutaneous Pressure Induced Vasodilation Alteration in Persons with Spinal Cord Injury; Implication for Pressure Ulcers	Michelle Trbovich, MD

# GENERAL SESSIONS

**MONDAY JUNE 2, 2025** All Program times are in Mountain Standard Time (MST)

ORAL PRESENTATIONS	PRESENTERS
<b>GENERAL SESSION 2: Respiratory: Inhale the Future, Exhale the Past</b> 11:20 AM - 12:20 PM / Moderator: Cristina Sadowsky, MD • Co-Moderator: Shane Stone, MD	
Implementing a Multi-Modality Respiratory Weaning Intervention for Adult Critical Care Patients Mechanically Ventilated with Cervical Spinal Cord Injury: A Quality Improvement Project (QIP)	Tammy Lea, Clinical Specialist Physiotherapist
Correlation of Diaphragmatic Ultrasound with Pulmonary Function Testing in Patients with Chronic Cervical Spinal Cord Injury: A Single Center Pilot Study	Shane Stone, MD
Depletion of Peripheral Monocyte-Derived Macrophages and COX-2 Inhibition Differentially affect Ventilatory and Locomotor Recovery Following Cervical Spinal Cord Injury in Rats	Aaron Silverstein, BS, BS
<b>Anthony F. DiMarco MD 2025 Award Recipient</b> Mild Intermittent Hypoxia May Improve Sleep Quality and Cognition in Individuals with SCI	Lexi Soltesz, BS, BA
Diaphragm Pacing and Colostomies in Ventilator Dependent Cervical Spinal Cord Injured Patients: Optimizing Timing of Each Therapy Can Improve Care and Quality of Life	Raymond Onders, MD, FACS, FASIA

ORAL PRESENTATIONS	PRESENTERS
<b>GENERAL SESSION 3: Basic Science: Basic Science Approaches to Enhancing Recovery Following Spinal Cord Injury: There is Nothing Basic About it!</b> 11:20 AM - 12:20 PM / Moderator: Linda Jones, PT, PhD • Co-Moderator: Ahad Siddiqui, PhD	
Enhancing Stem Cell Therapy for Chronic Spinal Cord Injury via Transient Opening of Blood-Spinal Cord Barrier Using Low-Intensity Focused Ultrasound	F M Moinuddin, PhD
Immunomodulatory and Regenerative Effects of Electrical Stimulation following Spinal Cord Injury	Ahad M. Siddiqui, PhD
miR-19a-3p and miR-19b-3p Promote Microglia Activation Associated with Neuroinflammation	Ricardo Battaglino, PhD
miR-19a and miR-19b Mediate Neuroinflammation and Neuropathic Pain through Nurr1 and Nur77 Downregulation Following Spinal Cord Injury	Ricardo Battaglino, PhD
Predclinical Efficacy and Clinical Pathway of ExoPTEN: A Novel Exosome-Based Therapy for Acute Spinal Cord Injury	Nachshon Knoller, MD

# 2025 SCIENTIFIC MEETING

## GENERAL SESSIONS

**TUESDAY JUNE 3, 2025** *All Program times are in Mountain Standard Time (MST)*

### ORAL PRESENTATIONS

### PRESENTERS

**GENERAL SESSION 4: Measurements & Outcomes: If You are Not Measuring, You are Just Practicing**  
**10:40 AM - 11:40 AM / Moderator: Rajiv Saigal, MD, PhD • Co-Moderator: Bing Chen, PhD, MD, Med**

Revisiting the Definition of Complete SCI in the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI)	Rüdiger Rupp, Prof. Dr.-Ing., FASIA
The Sodium-Glutamate Antagonist Riluzole Improves Outcome after Acute Spinal Cord Injury: Results from RISCIS Randomized Controlled Trial Using a Global Statistical Analytic Technique	Karlo Pedro, MD
The Disability Tax: Developing a Person-Centered Economic Model to Calculate the Real Cost of Living with SCI	John Chernesky
The Electrosacogram (ESG): A Point-of-Care Electrophysiological Method for Transforming Neuro-Sacral Assessment Following Spinal Cord Injury/Lesion	Andreane Richard-Denis, MD, MSc
Early Surgery Improves Neurological, Functional, and Quality of Life Outcomes in Acute Traumatic Spinal Cord Injury: A Global Endpoint Analysis of 470 Patients from the Spine Trauma Study Group (STSG) Prospective Cohort	Karlo Pedro, MD
Local Motor Score Context Provides Additional Insights into Neurological Recovery after Spinal Cord Injury	Louis Philipp Lukas, MSc

### ORAL PRESENTATIONS

### PRESENTERS

**GENERAL SESSION 5: Cardiovascular: Getting to the Heart of the Issue: SCI Cardiovascular Topics**  
**10:40 AM - 11:40 AM / Moderator: Gary Farkas, PhD • Co-Moderator: Kajana Satkunendrarajah, PhD**

Risk of Ischemic Stroke is Elevated in the First Five Years after Onset of Spinal Cord Injuries and Disorders in US Veterans	Rafer Willenberg, MD, PhD
The Systemic Impact of Mild Intermittent Hypoxia on Autonomic Function, Sleep, Cognition, and Mitochondrial Function in Individuals with Incomplete SCI	Gino Panza, PhD
Physiological Adaptations Following 16-Weeks of Functional Electrical Stimulation with Dietary Intervention in Spinal Cord Injury	Jesse Brenman, BS
Safe Sex: Reducing Autonomic Dysreflexia During Sexual Vibrostimulation using Non-Invasive Neuromodulation	Thomas Thordarson, BSc
Cardiovascular Safety of Transcutaneous Spinal Cord Stimulation in Cervical Spinal Cord Injury	Soshi Samejima, DPT, PhD

# GENERAL SESSIONS

**TUESDAY JUNE 3, 2025** *All Program times are in Mountain Standard Time (MST)*

## ORAL PRESENTATIONS

## PRESENTERS

### GENERAL SESSION 6: **Clinical Trial Updates: Clinical Trials: What's the Latest and When Will it Get Here?**

**10:40 AM - 11:40 AM / Moderator: Isa McClure, PT, MAPT • Co-Moderator: James Hamer**

Multistakeholder Panel Discussion Aimed at Optimizing Clinical Trials in Spinal Cord Injury	Kim Anderson-Erisman, PhD, FASIA
A 16-week Placebo-controlled Phase 1b/2a Study of NVG-291: Results for the Chronic Cohort	Daniel D Mikol, MD, PhD
Cognitive Alteration in Patients with Acute and Chronic Spinal Cord Injury and Their Comparison with Hospitalized Trauma Patients and Healthy Individuals	Carolina Bravo Lanz
Clinical Protocol for Gait Facilitation after SCI Using Electrical Stimulation of Midbrain Locomotor Circuits	Brian Noga, PhD
Safety and Feasibility of Spinal Cord Transcutaneous Stimulation in the Early Time Period After Spinal Cord Injury	Einat Haber, MD
Spinal Cord Transcutaneous Stimulation for Cardiovascular Regulation Early After Spinal Cord Injury. Is it Safe, Feasible and Effective? Preliminary Findings	Einat Haber, MD

## ORAL PRESENTATIONS

## PRESENTERS

### GENERAL SESSION 7: **Activity-Based Training: Get Up and Get Moving: Importance and Challenges of Movement and Exercise to Improve Outcomes in Acute through Chronic Stages of SCI**

**3:00 PM - 4:00 PM / Moderator: Margaret Finley, PT, PhD • Co-Moderator: Jacob Goldsmith MS, PhD**

Changes in Physical Activity Determinants and Behavior Based on Exerciser Status after Group Exercise	Margaret Finley, PT, PhD
Do Overground Robotic Exoskeletons Enhance Mobility During Inpatient Rehabilitation after Incomplete Spinal Cord Injury?	Lindsey Wynne, PT, DPT, NCS
Enhancing Exercise Adherence in Individuals with Spinal Cord Injury Through a Home Exercise App: Development and Usability Testing	Alex W.K. Wong, PhD, DPhil
A Novel Combined Neuromodulation Therapy to Enhance Balance and Neuroplasticity after Incomplete SCI	Shirin Tajali, MD
Final Results from The PROMPT-SCI Study : A Single-Arm Proof-of-Concept Trial of Early In-Bed Leg Cycling Following Acute Traumatic Spinal Cord Injury	Andreane Richard-Denis, MD, MSc
Effectiveness of a Community-Based Exercise Program for Individuals with Motor Incomplete Spinal Cord Injury: A Randomized Controlled Trial	Sungchul Huh, MD, PhD

# 2025 SCIENTIFIC MEETING

## GENERAL SESSIONS

**TUESDAY JUNE 3, 2025** All Program times are in Mountain Standard Time (MST)

### ORAL PRESENTATIONS

### PRESENTERS

#### **GENERAL SESSION 8: Psychosocial: Navigating the SCI Landscape: The Interplay of Health, Technology, and Social Factors**

**3:00 PM - 4:00 PM / Moderator: Jennifer Coker, PhD • Co-Moderator: David McMillan, PhD**

Hazard of Early Departure from The Labor Force after Spinal Cord Injury: Relationship with Employment Factors, Socioeconomic Status, and Race Ethnicity	James Krause, PhD
Self-Reported Use of Benzodiazepines Among a Cohort with Chronic Spinal Cord Injury In the Southeastern USA: Associations with Demographic, Injury, and Opioid Use Characteristics	Maria Nicole D. DiPiro, PhD
Lived Experience with Implanted Neurotechnology: How Individuals with Spinal Cord Injury Make Meaning of Technology Use and Clinical Trial Participation	Anne Bryden, PhD, OTR/L
Influence of Psychosocial Resources in the Relationship Between Pain and Quality of Life in Adults with Spinal Cord Injury	Muna Bhattarai, PhD, RN, CRC
Quality Improvement Initiative to Identify Individuals with SCI/D at Risk for Major Depression and Anxiety During Inpatient Rehabilitation	B. Catharine Craven, BA, MD, MSc, FRCPC, FASIA, FCAHS
Does Resilience Mitigate the Extent of Prescription Opioid Use and Misuse Among People with Chronic Spinal Cord Injury?	James Krause, PhD

### ORAL PRESENTATIONS

### PRESENTERS

#### **GENERAL SESSION 9: Mixed Papers 1: Risk-y Business in SCI: Predictive Analytics and Practical Aspirations**

**3:00 PM - 4:00 PM / Moderator: Elizabeth Roy Felix, PhD • Co-Moderator: Alex Benedetto, BS**

Development of Acute and Late Spasticity following Traumatic Spinal Cord Injury: Prevalence, Clinical Predictors and the Impact of Initial Severity of The Injury	Andreane Richard-Denis, MD, MSc
A Qualitative Examination of the Life Course Considerations Influencing the Housing Experiences of Persons with Spinal Cord Injury / Dysfunction	Sander L. Hitzig, PhD
Performance of Clinical Experts in Predicting Walking after Spinal Cord Injury in Comparison with Machine Learning	Louis Philipp Lukas, MSc
Bedside Sacral Electromyography as a Novel Method for Early Detection of Neurogenic Bladder Dysfunction following Acute Incomplete Thoracolumbar Injury/Trauma: A Proof of Concept Study	Andreane Richard-Denis, MD, MSc
Association of DNA Methylation Signatures with Traumatic Spinal Cord Injury	Ricardo Battaglini, PhD
Clinical Factors Associated with Neurological Recovery following Acute Traumatic Cervical Spinal Cord Injury: Analysis of 655 Prospectively-Accrued Cases from the NASCIS 2 and NASCIS 3 Clinical Trials.	Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN, FASIA



# GENERAL SESSIONS

**WEDNESDAY JUNE 4, 2025** *All Program times are in Mountain Standard Time (MST)*

## ORAL PRESENTATIONS

## PRESENTERS

**GENERAL SESSION 10: Mixed Papers 2: Movin', Eatin', and Livin' Right!**

**9:00 AM - 10:00 AM / Moderator: James Wilson, DO • Co-Moderator: Soshi Samejima DPT, PhD**

The Effect of Home-Based Neuromuscular Electrical Stimulation-Resistance Training and Protein Supplementation on Lean Mass in Persons with Spinal Cord Injury	Sven Hoekstra, PhD
Content Validity of a New Nutrition Knowledge Questionnaire for Individuals with Spinal Cord Injuries and Disorders	Rena Steiger-Chadwick, MPH Sherri LaVela, PhD, MPH, MBA
Diagnoses and Procedures During "Treat and Release" Emergency Department Visits for Pediatric Traumatic Spinal Cord Injury in the United States	James A.G. Crispo, MSc, PhD
Two versus Four Doses of Intravesical Lactobacillus Among People who Manage their Bladders by Intermittent Catheterization	Suzanne Groah, MD, MSPH
Quality Improvement Project for the Gynecological Care of Women after Spinal Cord Injury: Step I, Discovery	Claudia I. Martinez, MD



# 2025 SCIENTIFIC MEETING

## AWARD-ELIGIBLE POSTERS

MONDAY / JUNE 2 / 2:30-3:30 PM AND TUESDAY / JUNE 3 / 2:00-3:00 PM

**1** Rapid-Onset, Short-Duration Induction of Colorectal Contractions and Defecation in Spinal Intact and Spinal Cord Injured Rats

**Lesley Marson, PhD**

**2** Responding to Transcutaneous Spinal Stimulation for Upper Extremity Recovery: A Midsagittal Tissue Bridge Case Series

**Andrew C. Smith, PT, DPT, PhD**

**3** Acute Effects of taVNS on Wrist Extensor or Extensor Digitorum Corticospinal Excitability in People with Chronic Incomplete Cervical Spinal Cord Injury

**Allison Foster Lewis, DPT, PhD**

**4** Midbrain Locomotor Circuit Activation of Periaqueductal Grey – Potential Role in Locomotion and Pain Modulation after SCI?

**Brian Noga, PhD**

**5** Predicting Functional Walking at Discharge from Inpatient Rehabilitation After Traumatic Spinal Cord Injury: A Single-Site Retrospective Validation Study

**Jonathan Ripic, PT, DPT, NCS**

**6** Recovery of Sensory Function after Traumatic or Ischemic Spinal Cord Injury (SCI)

**Christian Schuld, Dipl.-Infom. Med**

**7** Fatigue Properties of the First Dorsal Interosseous after Incomplete Spinal Cord Injury

**Christina Whang, B.Kin., MSc Candidate**

**8** Developing the PedsADAPSS: A New Measure for Assessing Cognitive Appraisals in Pediatric Spinal Cord Injury

**Kyle Deane, PhD**

**9** Midsagittal Tissue Bridges and Walking Ability 1-Year Post Spinal Cord Injury

**Wesley Thornton, PT, DPT, PhD(c)**

**10** A Single Center Evaluation of adherence to the PVA SCI Clinical Practice Guidelines

**Nikhil Nair, BA**

**11** From Homefront to Battlefield: A Comparative Study on the Priorities for Recovery in Individuals with Spinal Cord Injury

**Omer Faraz, MD Candidate**

**12** Development of a Reusable Smart-Catheter System for Improved Urinary Health Monitoring

**Zhi Dou, MS**

## POSTER SESSION 1 MONDAY / JUNE 2 / 2:30-3:30 PM

### Accessibility / Public Health

**13** Assessing Community Needs of Individuals with Spina Bifida and their Families

**Ava S. Jefson**

**14** Clinical And Sociodemographic Characteristics In Non-Traumatic Spinal Cord Injury At The National Rehabilitation Institute “Luis Guillermo Ibarra Ibarra” 2015-2023, Mexico.

**Valeria Polet Olivares González, MD**

**15** Costs of Treatment of Patients with Post-Traumatic Spinal Cord Injury in a Reference Hospital In Mexico

**Carlos Fernando Godínez González, MD, MsC**

### Activity-Based Training

**16** Impact of the Americas Committee of ASIA Research Course on Professional Practices

**Melina Longoni, MD**

### Acute Care

**17** A Comprehensive Analysis of Traumatic Atlanto-Occipital and Atlanto-Axial Dislocations: A Case Series from a Level One Trauma Center

**Henry Krasner, BS**

**18** Autonomic Dysreflexia Complicated by Metastatic Paraganglioma

**Zakari R Dymock, MS, MD**

### Aging

**19** Engaging the Spinal Cord Injury Inter-professional Team to Advance Age-Friendly Care

**Sunil Sabharwal, MD, SCI Chief, VA**

### Assistive Technology

**20** Reversing the Trend: Clinical Strategy to Reduce Incidence and Impact of Wheelchair Repairs in Spinal Cord Injury Rehabilitation

**Blake Edwin Perkins, PT, DPT, ATP**

**21** Effects on Pressure Relief Activity and Technology Adoptability by A Real-Time System for Monitoring, Feedback, and Training to Prevent Pressure Injuries In Individuals With Spinal Cord Injury

**Jack Janett, BS**

### Basic Science / Animal Models

**22** Bioengineering Strategies to Facilitate Axon Growth after Spinal Cord Injury

**Matthew Neehouse, PT, DPT**

# POSTER SESSION 1 MONDAY / JUNE 2 / 2:30-3:30 PM

## Basic Science / Animal Models, continued

**23** Tissue Engineering Approach for Functional Recovery Following Spinal Cord Injury

**Leena Rajendra Chaudhari, PhD, MS**

## Cardiovascular

**24** Stabilizing the Blood Pressure Pendulum Following Spinal Cord Injury using Noninvasive Spinal Neuromodulation

**Rahul Sachdeva, PhD**

**25** Long-Term Facilitation of Heart Rate and Blood Pressure Variability Following Daily Mild Intermittent Hypoxia in Individuals with Motor Incomplete Spinal Cord Injury

**Gino Panza, PhD**

**26** Postprandial Satiety and Metabolic Responses in Men With and Without a Spinal Cord Injury

**Gary J. Farkas, PhD, MSCTI**

**27** Passive Heat Therapy to Improve Cardiometabolic Health in Persons with a Spinal Cord Injury

**Sven Hoekstra, PhD**

## Case Study

**28** Experience with Diaphragmatic Pacemaker in a Person with Spinal Cord Injury: Single Case Report

**Dr. Diego uberti, Licenciado en kinesiología y fisioterapia. Medico especialista en rehabilitacion**

**29** Neurological Sequelae of Restrictive Dietary Practices: The Role of Multidisciplinary Rehabilitation, Education, and Primary Care

**Ashley Covatto, DO**

**30** Overcoming Diagnostic Oversights in a Traumatic Spinal Cord Injury Patient with Delayed Diagnosis of Multiple Myeloma: A Case Report

**Ashley Covatto, DO**

**31** Posterior Spinal Artery Syndrome in the Cervical Cord: A Misdiagnosed Case

**Elena Posanti, MD**

**32** Successful Completion of Medical School with Physical Disability from Cervical Spinal Cord Injury: A Case Report

**Claudia I. Martinez, MD**

**33** A Case Study on Historic Controls for Clinical Trial Designs

**Miklovana Tuci, MSc**

**34** Heterotopic Ossification in Spinal Cord Injury with a Normal Alkaline Phosphatase in the Setting of an Inpatient SCI Rehabilitation: A Case Report

**Isabel Nip, MD, MS**

**35** Secondary Blood Pressure Effects of a Neuroprosthesis for Trunk Control

**C. Eric Heidorn, MS, ABD**

## Chronic Care

**36** Factors that Restrict Standing in the Daily Life Routine of Persons with Spinal Cord Injury in Argentina

**Federico Nicolas Llanos, OT**

## Clinical Trial Updates

**37** Study Design: Delivery of Oligodendrocyte Progenitor Cells for Spinal Cord Injury: Evaluation of a Novel Device (DOSED) Study

**Michael Lauw, MSW**

## Community Re-Integration and Participation

**38** Use and Type of DME In Activities of Daily Living in Patients with Spinal Cord Injury after Discharge from a Neurorehabilitation Center: Preliminary Results

**Paula Teresa Cañás, OT**

**39** Life After Spinal Cord Injury: Latin American Experiences

**Melina Longoni, MD**

## COVID 19

**40** Mortality due to COVID-19 Among Persons with Spinal Cord Injury in the United States: 2020-2022

**Michael J DeVivo, DrPH, FASIA**

## Electrophysiology

**41** Motor Unit Properties of Key Upper Limb Muscles after Incomplete Spinal Cord Injury

**Mathew Debenham, PhD**

## Health Access for Mobility Impaired

**42** Barriers and Facilitators to Breast Cancer Screening with Mammography Among Women Veterans with Spinal Cord Injuries and Disorders

**Elizabeth Hulén, PhD**

**43** Plans to Improve the Gynecological Care of Women after Functional Decline

**Claudia I. Martinez, MD**

## Imaging

**44** Validation of Novel Mathematical Model of Muscle Thickness for Quantitative Neuromuscular Ultrasound in Spinal Cord Injury

**Emmanuel Ogalo, Bkin, MSc**

## Measurement and Outcomes Instruments

**45** Hounsfield Units and Association with Outcomes in Acute Traumatic Spinal Cord Injury: A TRACK-SCI Study

**John H. Kanter, MD**

**46** Associations between Spatially Adjacent Below-Level Dermatomes in Spinal Cord Injury with a Focus on Dermatomes Innervated by Distant Roots

**Christian Schuld, Dipl.-Infom. Med**

**47** Data-Driven Prediction of Spinal Cord Injury Recovery: An Exploration of Current Status and Future Perspectives

**Miklovana Tuci, MSc**

**48** Design and Development of Flexible Potentiometric pH Sensors for a Reusable Smart-Catheter Platform

**Erika Solano, MS**

## Metabolic / Obesity / Nutrition

**49** Status of the Knowledge that Health Professionals Have about the Nutrition of People with Spinal Cord Injuries in Latin America (LA)

**Melina Longoni, MD**

**50** Management of Obesity and GLP-1 agonists; Does the Prescription Rates vary among obese SCI Vs Non-SCI Patients? a Retrospective Cohort Study

**Dilshad Hunain Al Arabia, MD**

# 2025 SCIENTIFIC MEETING

## POSTER SESSION 1 MONDAY / JUNE 2 / 2:30-3:30 PM

### Mixed

**51** A Comprehensive Systematic Review on Sleep Disorders in People Living with Spinal Cord Injury  
**Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN, FASIA**

### Neural Plasticity

**52** Ventilatory and Cardiovascular Plasticity following Acute and Daily Mild Intermittent Hypoxia in those with Motor Incomplete SCI  
**Gino Panza, PhD**

### Pediatrics

**53** "I Was a Wheelchair Kid" Podcast Series: Introducing a New Resource For Adolescents  
**Allen Heinemann, PhD**

## POSTER SESSION 2 TUESDAY / JUNE 3 / 2:00-3:00 PM

### Neuromodulation

**54** Implanted Myoelectric Control for Trunk and Exercise for Neuromuscular Stimulation  
**Kevin Foglyano**

**55** Notes from the Field: Spinal Stimulation in a Community-Based Clinic  
**Emma Buckley, PT, DPT, ATC**

**56** The Neuromodulatory Effect of Different Parameters of Transcutaneous Spinal Stimulation in Humans with Spinal Cord Injury  
**Matthias Krenn, PhD**

### Nursing

**57** Prevalence of Mucus and Sediment in Urine and their Association with Urinary Tract Infections in Spinal Cord Injury Patients Using Intermittent Catheterization  
**Jessica Simmons, DNP, APRN, FNP-C, CWON, DNC**

**58** Exploring Preferences for Intermittent Catheterization: Results from a Continence Care Registry  
**Jessica Simmons, DNP, APRN, FNP-C, CWON, DNC**

### Primary Care

**59** Enhancing Healthcare for SCI/D Veterans with Diabetes and Hypertension: A Quality Improvement Initiative Centered on Patient-Oriented Evidence That Matters (POEMs)  
**Pavel Burskii, SCI Fellow**

### Psychosocial

**60** Health Disparities and Individual-Specific Factors Predicting Functional Outcomes at 12 Months: Results from the SCI Model Systems  
**Ana Valeria Aguirre Gumez, MD**

**61** A Scoping Review on the Influence of Housing on the Health and Wellbeing of People with Spinal Cord Injury/ Dysfunction  
**Sander L. Hitzig, PhD**

**62** Interpersonal Violence Against People with SCI: A Qualitative Study  
**Susan Robinson-Whelen, PhD**

### Rehabilitation

**63** Developing a Continuum of Women's Health to Identify Gaps In Research and Areas to Intervene  
**Jennifer Coker, PhD, MPH, FASIA**

**64** Neurophysiological Recovery following Nerve Transfer Surgery to Restore Upper Limb Function in Acute Cervical Spinal Cord Injury  
**Kyle Missen, PhD**

**65** The Effect of Tamoxifen on the Gut Microbiome of Female Rats After Spinal Cord Injury  
**Luis H. Pagan Rivera, PhD Student**

**66** Comparative Analysis of Recovery Trajectories in Spinal Cord Injury: The Impact of Polytrauma on Rehabilitation Outcomes  
**Sean Li, BS**

**67** Heart Rate Variability During Urinary Bladder Catheterization in Individuals with Spinal Cord Injury: Anxiety vs. Sensory Activation During Catheterization  
**Fiona Huang, MHS, BKin**

**68** What Factors Influence the Acceptance and Use of Generative Artificial Intelligence (AI) Among Graduate Students in Rehabilitation Medicine?  
**Alberto Isaac Perez Sanpablo, PhD**

**69** The Role of Androgens in Neurophysiological and Autonomic Function in Men With SCI  
**Jacob A. Goldsmith, PhD**

**70** Functional Electrical Stimulation combined with Respiratory Muscle Training Improves Cough Effectiveness in Tetraplegic Patient  
**Stephane Philippe-Ratway, MS, CCC-SLP**

**71** Sleep Disturbances in Individuals with Spinal Cord Injury Treated at the National Institute of Rehabilitation  
**Ana Karen Garcia Ramirez, MD**

**72** Rehabilitation Challenges and Management of Autonomic Dysreflexia in a Patient with Chronic Spinal Cord Injury Following Diaphragmatic Pacer Placement: A Case Report  
**Alexandra Wolfe, DO**

**73** Kayak Training vs Aerobic Resistance Exercise: Effects on Cardiovascular Condition in Patients with Spinal Cord Injury, Preliminary Results  
**Javier Antonio Veliz Chinchilla**

**74** Characterization of the Center of Mass in Post-Spinal Cord Injury Gait  
**Gabrielle Labrozzi, PhD Candidate**

**75** Effect of Kayak Ergometer Training Compared with Aerobic Endurance Circuit Exercise on the Metabolism of Individuals with Spinal Cord Injury. Preliminary Results  
**Erika Carolina Zenteno Castro**

**76** Inclusion of Non-Traumatic Spinal Cord Injury in National Traumatic Spinal Cord Injury Registries: Preliminary Findings and Lessons Learned from the United States and Canada  
**Yuying Chen, MD, PhD**

**77** Functional Prognosis of Patients with Spinal Cord Injury using Machine Learning  
**Eduardo Cabanas, PhD**



# POSTER SESSION 2 TUESDAY / JUNE 3 / 2:00-3:00 PM

## Rehabilitation Therapy

**78** Effect of Immersive Virtual Reality Rehabilitation Based on Kayak Paddling on Trunk Independence and Balance in Spinal Cord Injury Patients: A Pilot Study

**Irma Guadalupe Lozano Rodriguez**

**79** Impact of the Community Environment on Wheelchair Propulsion In Individuals with Spinal Cord Injury

**Martín del Castillo, PT**

**80** Paired Vagus Nerve Stimulation and Upper Extremity Rehabilitation Following Spinal Stroke

**Rose Tilton, OTD, OTR/L**

## SCI Knowledge Dissemination/ Implementation into the Community

**81** Cognitive Impairments in Individuals with Spinal Cord Injury and Their Association with Respiratory Parameters

**Miyuki Mariana Takata Rodríguez, MD**

## Sex / Fertility

**82** Complications of Intrauterine Devices in Patients with Spinal Cord Injury

**Hans Anderson, MD, PhD**

## Skin

**83** Long Term Follow-Up of Wounds after Discharge from Acute Inpatient Rehabilitation

**Radhika Sharma, MD**

## Spine Surgery

**84** Optimizing Outcomes for Spinal Cord Injury Patients: Insights from a 3-Tier Health Service Delivery Model in Nepal

**Haley Nadone, BS**

## Translational Research

**85** Standardized Thoracic Spinal Cord Injury Model Platform for SCI Research

**Johana Bastidas, MD**

## Upper Extremity Function

**86** The Impact of the Novel ExaStim® Device on the Targeted Recovery of Upper Extremity Motor Function in an Individual with Tetraplegia: A Case Study

**Emily Leonard, PhD**

## Urology

**87** Increased Bladder and Bowel Complications in Persons with Spinal Cord Disorders and Post-Acute Sequelae of COVID-19: A Retrospective Review

**Christina V. Oleson, MD**



## Late Breaking Posters

**88** A Qualitative Exploration of Appraisals of Disability for Youth with Spinal Cord Injury

**Justine Stewart, PsyD**

**89** Comparison of Mechanical Ventilation with Low and High Tidal Volumes in Acute Spinal Cord Injury: A Pilot Randomized Clinical Trial

**Radha Korupolu, MD**

**90** Intravenous Injection of Novel Lipid Nanoparticles for Astrocyte Transfection and Local Immunosuppression After Spinal Cord Injury

**Daniel Hellenbrand, PhD**

**91** Toward Deeper Understanding of Interactions Between Sleep and Recurrent Pressure Injuries After Traumatic SCI

**Letitia Graves, PhD, RN**

**92** The Development of Cervical Spinal Cord Diffusion MRI Near Metal

**Thammathida Ketsiri, PhD**

**93** Portable Leg Stretching Device for Management of Spasticity in Patients with SCI/D

**Murtaza Syed, MD**

**94** Neuroprosthesis Providing Grasp Function in Cervical Spinal Cord Injury

**Kevin Kilgore, PhD**

