

AMERICAN SPINAL INJURY ASSOCIATION

# SCIENTIFIC MEETING

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ATLANTA  GEORGIA  
APRIL 16-19, 2023



# 2023 ANNUAL SCIENTIFIC MEETING

**THANK YOU 2023 PARTNERS AND SUPPORTERS!**

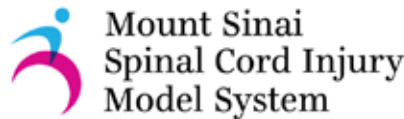
## DIAMOND PARTNER



## GOLD PARTNERS



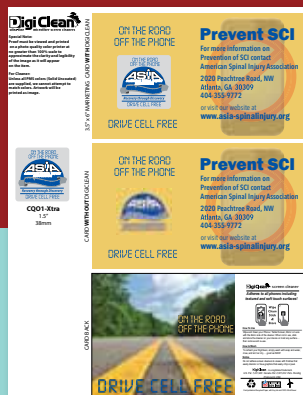
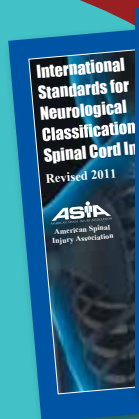
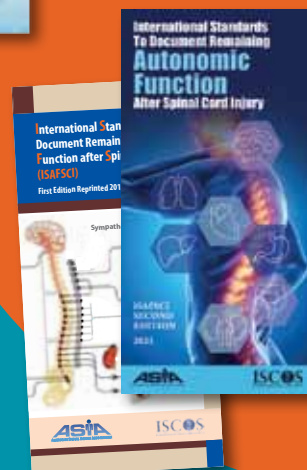
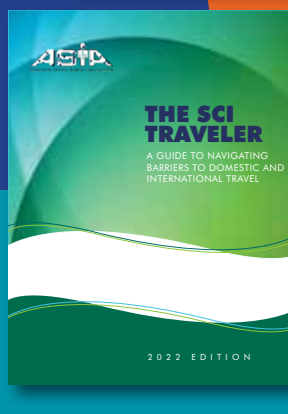
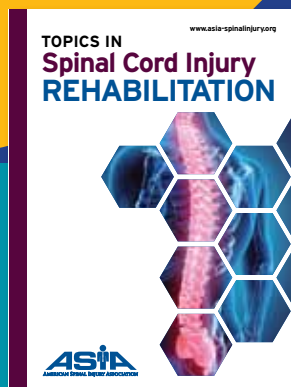
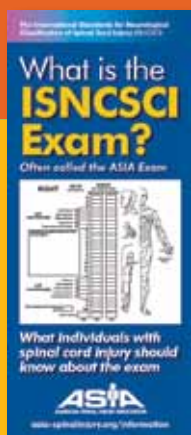
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## Educating SCI Professionals for over 50 years.





# NEW UAB SPAIN INPATIENT REHABILITATION CENTER

Expected to open in 2025, the new UAB Spain Inpatient Rehabilitation Center will be a state-of-the-art 11 story facility with a rooftop courtyard, rehabilitation gym on each floor, outdoor terrain park, office meeting space, and parking for more than 200 vehicles.



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The University of Alabama at Birmingham



# 2023 ANNUAL SCIENTIFIC MEETING



Wear your favorite sports team jersey the day of the Precourse.

**FREE!!** Precourse included in your registration.

## PRECOURSE: SCIENCE OF SPORT

### PRECOURSE PROGRAM CHAIRS

**Amy Bohn, OTR/L**  
Childrens Healthcare of Atlanta  
Atlanta, Georgia

**Suzanne Groah, MD**  
Director of SCI Research  
MedStar National Rehabilitation Hospital  
Washington, District of Columbia

### WINDSOR BALLROOM

**SUNDAY, APRIL 16TH** All Program times are in Eastern Time (ET)

Time	Session Title	Presenters
7:00 AM - 8:00 AM	<b>Breakfast</b>	
8:00 AM - 8:10 AM	<b>Introduction/Opening Remarks</b>	Suzanne Groah, MD
8:10 AM - 8:40 AM	<b>History of Adaptative Sports</b> <i>Participants will gain knowledge of the origins of wheelchair sports as well as understand the evolution of sports based on access, technology, and research.</i>	Robert Murray
8:40 AM - 9:10 AM	<b>Evolution of Classification Across Adaptive Sports</b> <i>An overview of types of classification based on the sport, changes in sport classifications due to research and the expansion of populations participating in sport.</i>	Michelle Lanouette, MS, PT, NCS, ATP
9:10 AM - 9:30 AM	<b>Autonomic Function as a Missing Piece of the Classification of Paralympic Athletes with SCI</b>	Andrei Krassioukov, MD, PhD, FRCPC, FASIA
9:30 AM - 9:50 AM	<b>Maximizing Exercise Capacity to Improve Sports Performance in Athletes with SCI</b>	Christopher West, PhD
9:50 AM - 10:10 AM	<b>Incorporating Rest, Recovery and Nutrition into Sports Training</b>	Jereme Wilroy, PhD
10:10 AM - 10:25 AM	<b>Break</b>	
10:25 AM - 10:45 AM	<b>Access to Fitness</b> <i>Access to online adaptive fitness and emerging development of programs</i>	Harsh Thakkar, CPT
10:45 AM - 11:05 AM	<b>Technology in Sport</b> <i>Technology available and data that can be collected from wearable technology</i>	Hannah Houde

continued

## SUNDAY, APRIL 16TH

Time	Session Title	Presenters
11:05 AM - 11:20 AM	<b>The Current State of Paralympic Research and Identified Gaps: A Scoping Review</b>	Kerri Morgan PhD, OTR/L, ATP
11:20 AM - 11:30 AM	<b>Transition to Lunch</b>	
11:30 AM - 12:30 PM	<b>Sponsored lunch</b>	
12:40 AM - 1:20 PM	<b>Who is Appropriate for What Sport and Why?</b> <i>What determines good sport match for individuals with SCI.</i>	Rita Penniman, MS, CTRS, RRT
1:20 PM - 2:00 PM	<b>Equipment.... Where do I begin?</b> <i>Prescribing the proper sports chairs. Seating and positioning considerations will be discussed as related to injury and sport. An Overview of funding challenges and resources</i>	Sarah Leonard, PT, DPT, ATP Jim Black
2:00 PM - 2:15 PM	<b>Break</b>	
2:15 PM - 2:35 PM	<b>Psychology Impacts of Participation in Sports</b> <i>Psychological effects of participation in sport from community to paralympic level, incorporating athletes into peer mentorship programs, and benefits of peer mentorship within the sports communities</i>	Deborah Shapiro, PhD
2:35 PM - 2:50 PM	<b>Incorporation of Peer Mentorship and Sports</b>	Zac Bradley, MS, CRC, NCC
2:50 PM - 3:50 PM	<b>Panel of Athletes - Real Life Experiences</b> <i>Athletes will briefly discuss the impact of sports and mentorship life.</i>	Kerri Morgan PhD, OTR/L, ATP Harsh Thakkar, CPT Zac Bradley, MS, CRC, NCC Bill Furbish
3:50 PM - 4:00 PM	<b>Summary of Day and Explanation of Sport Expo</b>	
4:00 PM - 7:00 PM	<b>Welcome Reception with Sports Expo Venetian Ballroom</b> <i>In this session, participants will have the opportunity to learn about the sport, the diagnosis appropriate for and the resources available for each sport. Participants will have the opportunity to have hands-on experience/competition at each session.</i>	



# Congratulations, Dr. Kenneth C. Parsons, Paradigm Medical Director, on receiving the 2023 ASIA Lifetime Achievement Award

Your service and commitment have improved the lives  
of many catastrophically injured workers.

Thank you for your dedication to advancing the field of  
SCI care, education, research, and best practices.



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# MedStar Health

At MedStar National Rehabilitation Hospital, we treat the whole person with our advanced rehabilitation approaches, a wellness program with a variety of activities, and a state-of-the-science research program with opportunities throughout the spectrum of SCI.



## DISCOVER-SCI – New interactive education portal is now available!

### Current topics include:

1. What is SCI?
2. Neurogenic Bladder
3. Neurogenic Bowel
4. Skin Care and Wound Prevention
5. Autonomic Dysreflexia



Rehabilitation • Research • Wellness

**MedStar NRH**  
congratulates **ASIA**  
on **50 years** of  
outstanding service to  
the SCI community.





# 2023 ANNUAL SCIENTIFIC MEETING

## 2023 Annual Scientific Meeting Chair

**Christopher West, PhD**  
University of British Columbia, Vancouver, BC Canada

## 2023 Annual Scientific Meeting Vice Chair

**Rajiv Saigal, MD, PhD**  
University of Washington, Seattle, WA

**MONDAY, APRIL 17TH** All Program times are in Eastern Time (ET)

TIME	WINDSOR BALLROOM	HOPE BALLROOM	TRIPPE BALLROOM
6:30 AM - 8:00 AM	Registration – Windsor Foyer		
7:00 AM - 8:00 AM	Early Career Breakfast – Hope Ballroom Breakfast with Partner & Exhibitors		
8:00 AM - 8:15 AM	<b>Welcome/Opening Remarks – Windsor Ballroom</b>  <b>Suzanne Groah, MD, MSPH</b> ASIA President Director – SCI Rehabilitation and Recovery Program at Medstar National Rehabilitation Hospital at Georgetown, Washington DC		
8:15 AM - 8:45 AM	<b>Lifetime Achievement Award Presented by Indira Lanig, MD</b>  <b>Kenneth C. Parsons, MD</b> Paradigm Medical Director ASIA Past President		
8:45 AM - 9:00 AM	<b>FELLOW OF ASIA (FASIA) AWARD</b> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">   <b>Andy Blight, PhD</b> </div> <div style="text-align: center;">   <b>David R. Gater, MD, PhD, MS</b> </div> <div style="text-align: center;">   <b>Brian K. Kwon, MD, PhD, FRCSC</b> </div> <div style="text-align: center;">   <b>Janice Tilley</b> </div> <div style="text-align: center;">   <b>Eva Widerstrom-Noga, DDS, PhD</b> </div> <div style="text-align: center;">   <b>Kathy Zebracki, PhD</b> </div> </div>		
9:00 AM - 9:45 AM	<b>Sell Lecture: Regenerating the Injured Spinal Cord: From Molecules to Man</b>  <b>Elizabeth Bradbury, PhD</b> King's College London U.K. ● <a href="#">Click Here for Abstract</a>		
9:45 AM - 10:45 AM	<b>Poster Session 1 – Venetian Ballroom</b> (Listings page 28) ● <a href="#">Click Here for Abstracts</a>		
9:45 AM - 10:45 AM	Break with Partners & Exhibitors		
10:45 AM - 11:30 AM	<b>Exhibitor/Partner Recognition of our Generous Conference Supporters</b>		
11:30 AM - 11:40 AM	Stretch Break/Transfer to Next Session		

*continued*

**MONDAY, APRIL 17TH** All Program times are in Eastern Time (ET)

TIME	WINDSOR BALLROOM	HOPE BALLROOM	TRIPPE BALLROOM
11:40 AM - 12:40 PM	<p><b>General Session 1</b> Ambulation, Copulation and Colonization Topics in SCI</p> <p>● <a href="#">Click Here for Abstracts</a></p>	<p><b>General Session 2</b> From Pediatrics &amp; Pain to Prodding and Population Level Statistics</p> <p>● <a href="#">Click Here for Abstracts</a></p>	<p><b>Course 1 TRIP</b> Closing the Loop: Next-Generation Epidural Stimulation and Neuroethical Lessons from the Past</p> <p>● <a href="#">Click Here for Abstract</a></p>
12:40 AM - 1:40 PM	<p><b>Lunch – Presentation Sponsored by ODC:</b> How the Open Data Commons for Spinal Cord Injury Can Assist with Data Management and Sharing Mandates Karim Fouad, PhD • ODC Co-Director Dr. Abel Torres Espin • ODC Lead Data Scientist</p>		
1:40 PM - 1:50 PM	Stretch Break/Transfer to Next Session		
1:50 PM - 3:10 PM	<p><b>Course 2</b> Where to Start? Perspectives and Tools for Crafting a Meaningful Community for Engagement Program in SCI Research</p> <p>● <a href="#">Click Here for Abstract</a></p>	<p><b>Course 3</b> Operant Conditioning of Muscle-Evoked Potentials Enhancing Motor Function Recovery After Spinal Cord Injury</p> <p>● <a href="#">Click Here for Abstract</a></p>	<p><b>Course 4 TRIP</b> Combinatorial Therapies for Functional Restoration Spinal Cord Injury (Presented by SCOPE)</p> <p>● <a href="#">Click Here for Abstract</a></p>
3:10 PM - 3:20 PM	Stretch Break/Transfer to Next Session		
3:20 PM - 4:40 PM	<p><b>Course 5</b> Developing a Strong Base for Athletes of Adaptive Sport: Keys to Keeping an Athlete’s Shoulders in the Game</p> <p>● <a href="#">Click Here for Abstract</a></p>	<p><b>Course 6</b> The Future of SCI Education: Advances, Priorities, and Challenges in the Next Decade</p> <p>● <a href="#">Click Here for Abstract</a></p>	<p><b>Course 7 TRIP</b> Emerging Strategies to Treat Spasticity and Understand Its Role in Motor Control and Recovery After Spinal Cord Injury</p> <p>● <a href="#">Click Here for Abstract</a></p>
4:40 PM - 5:30 PM	<b>Membership Meeting with Refreshments – Windsor Ballroom</b>		

continued

## DP Clinical Congratulates ASIA on 50 Years of Spinal Cord Injury Care, Education, and Research



If you're looking for a partner to help you conduct your next SCI clinical trial, DP Clinical has the expertise to ensure success.

**Experience** – With more than 28 years as a full-service contract research organization (CRO) provider specifically focused on SCI clinical research, we understand the challenges of SCI trials. We've been involved in SCI research from the beginning and managed the gold standard SCI trial, Sygen® (GM1). Our research experience includes SCI drugs, devices, neuromodulation, autologous and stem cells, and gene therapy and their associated efficacy assessments.

**Relationships/Subject Access** – In addition to proven SCI study processes and procedures, we have strong relationships with SCI leaders, key professionals, and trauma/rehabilitation facilities who will provide the guidance and subject access you need to make sure your study runs smoothly.

*No other CRO has the breadth and depth of experience that DP Clinical offers.*

*If you need assistance with your next clinical trial, reach out to DP Clinical ☐ we want to be **Your Partner in Success.***



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*Our ambition is to improve the recovery of the functionality and the quality of life of patients.*



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## Clinical Study for Upper Limb Paralysis due to Spinal Cord Injury

Learn more about ExaStim®  
TSS therapy to treat people  
living with upper extremity  
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cord injury.

– Join us April 17 at 7 PM ET –  
Dinner and Panel Discussion:  
**Transforming Care:  
An Integrative Approach  
to Developing TSS  
for People Living  
with SCI**

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The ASPIRE study is currently enrolling participants who are at least 22 years of age and have a traumatic, chronic\* spinal cord injury between C2 and T2, but who maintain limited function of the upper extremities. Participants must be willing to cooperate with the study requirements, including compliance with the treatment plan and completion of all office visits.

To learn more, visit: [ANEUVO.com/aspire-study](https://ANEUVO.com/aspire-study)



Caution: Investigational device. Limited by United States law to investigational use.

\*Chronic injury shall be defined as either (1) 12 months since initial injury or (2) a preceding six months of no significant change in motor function (<2.72 points in ISNCSCI Upper Extremity Motor Score).

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# 2023 ANNUAL SCIENTIFIC MEETING

**TUESDAY, APRIL 18TH** All Program times are in Eastern Time (ET)

TIME	WINDSOR BALLROOM	HOPE BALLROOM	TRIPPE BALLROOM
6:30 AM - 6:00 PM	<b>Registration – Windsor Foyer</b>		
7:00 AM - 7:45 AM	<b>Breakfast with Partner &amp; Exhibitors</b>		
7:45 AM - 8:30 AM	<b>Lectureship</b>  <b>Treating the Injured Spinal Cord: A Historical Review</b> <b>Karim Fouad, PhD</b> Co-Director/Editor of the Open Data Commons-SCI University of Alberta		
8:30 AM - 9:40 AM	<b>Awards-Eligible Oral Presentations – Moderator Steven W. Brose, DO</b> <ul style="list-style-type: none"> <li>• Motor Scores Prediction from Light Touch and Pin Prick Scores in the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI)</li> <li>• Untreated Moderate-To-Severe Sleep-Related Breathing Disorders Is Correlated with Increased Number of Silent Episodes of Autonomic Dysreflexia During Sleep in Individuals Living with Subacute or Chronic Spinal Cord Injury: A Prospective Cross-Sectional Study</li> <li>• Loss Of Cortical Inhibition in Chronic Spinal Cord Injury: Clinical Implications for Sensorimotor Impairment, Functional Capability, And Self-Care Independence</li> <li>• Development of the Pediatric Appraisals of Disability Primary and Secondary Scale (Pedsadapss): Qualitative Methods</li> <li>• Healthcare Experiences Of LGBTQ+ Persons who Live with Spinal Cord Injury</li> <li>• NVG-291 Phase 1 Results and Phase 1b/2a Study Design in Individuals with Spinal Cord Injury</li> </ul> <p>● <a href="#">Click Here for Abstracts</a></p>		
9:40 AM - 9:50 AM	Stretch Break/Transfer to Next Session		
9:50 AM - 10:40 AM	Multidisciplinary Management of Individuals with SCI and Neurogenic Bladder through Interactive Cases: Aligning with the Guidelines Rose Khavari, Md (Moderator) Argyrios Stampas, MD, MS Michael Kennelly, MD  <span style="font-size: small;">Building a Bridge to Better Neurogenic Bladder Care</span>		
10:40 AM - 11:40 AM	<b>Posters Session 2 – Venetian Ballroom</b> (Listings page 28) ● <a href="#">Click Here for Abstracts</a>		
10:40 AM - 11:40 AM	Break with Exhibitors & Partners		
11:40 AM - 12:40 PM	<b>General Session 3</b> Vessels, Vasoconstriction, and Ventilation ● <a href="#">Click Here for Abstracts</a>	<b>General Session 4</b> Topics in Acute Phase Clinical Research and Care ● <a href="#">Click Here for Abstracts</a>	<b>Course 8 TRIP</b> Impaired Respiration and Infection Susceptibility After SCI ● <a href="#">Click Here for Abstract</a>

continued

**TUESDAY, APRIL 18TH** All Program times are in Eastern Time (ET)

TIME	WINDSOR BALLROOM	HOPE BALLROOM	TRIPPE BALLROOM
12:40 PM - 1:40 PM	<b>Individual Lunch Presentations by Spinex and ASIA</b>  Noninvasive Spinal Neuromodulation: The Current Applications and the Future Opportunities 		
1:40 PM - 1:50 PM	Stretch Break/Transfer to Next Session		
1:50 PM - 3:10 PM	<b>Course 9</b> Beyond ISNCSCI Considerations for Additional Profiling in SCI Clinical Trials Practices ● <a href="#">Click Here for Abstract</a>	<b>Course 10</b> Addressing The Priorities of Individuals with SCI: Spinal Cord Stimulation for Improving Sexual, Lower Urinary Tract, and Bowel Function Following Spinal Cord Injury ● <a href="#">Click Here for Abstract</a>	<b>Course 11 TRIP</b> The Good, The Bad, and the Unknown: Is Stretching Beneficial or Detrimental After Spinal Cord Injury? ● <a href="#">Click Here for Abstract</a>
3:10 PM - 3:20 PM	Stretch Break/Transfer to Next Session		
3:20 PM - 4:20 PM	<b>General Session 5</b> Neuromodulation: Participant Perspectives, Public Perceptions, and Practical Applications ● <a href="#">Click Here for Abstracts</a>	<b>General Session 6</b> Barriers to Transcend in the Pursuit of Health and Wellness After SCI ● <a href="#">Click Here for Abstracts</a>	<b>Course 12 TRIP</b> Tools of the Trade: Evaluating Strengths and Limitations of Cardiovascular Assessment ● <a href="#">Click Here for Abstract</a>
4:20 PM - 4:40 PM	Refreshment Break with Partners & Exhibitors		
4:40 PM - 6:00 PM	<b>Course 13</b> The Physiology and Function of Exercise: A Multidisciplinary Collaboration for Addressing Exercise, Activity and Wellness with Spinal Cord Injury ● <a href="#">Click Here for Abstract</a>	<b>Course 14</b> The State of Clinical Trials: Recent Observations from a Clinical Research Organization (CRO) Perspective and Implications for New Researchers and Research Programs ● <a href="#">Click Here for Abstract</a> 	<b>Course 15 TRIP</b> Physiological Targets of Therapeutic Acute Intermittent Hypoxia ● <a href="#">Click Here for Abstract</a>
6:30 PM - 8:30 PM	<b>Presidents Reception: Celebrating 50 Years</b> Hosted by Suzanne Groah, MD, MSPH The Garden, Intercontinental Hotel Buckhead   		





# A miracle delayed is even more miraculous.

Conventional wisdom holds that recovery from spinal cord injury ceases after two years. We're not conventional, and we never say never. Our groundbreaking activity-based restorative therapies help children and adults with chronic paralysis regain sensation, function, mobility and independence, even many years after injury. Don't lose hope, learn more.

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# Noninvasive spinal cord neuromodulation for neurogenic bladder



**SCONE™** therapy is a transcutaneous spinal neuromodulation treatment for neurogenic bladder due to SCI, MS and stroke that retrains the spinal cord without the need for insertion or implantation of stimulating electrodes



In preliminary studies, use of **SCONE™** therapy resulted in:

- Reduced urgency
- Reduced frequency
- Increased storage capacity
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# 2023 ANNUAL SCIENTIFIC MEETING

**WEDNESDAY, APRIL 19TH** *All Program times are in Eastern Time (ET)*

TIME	WINDSOR BALLROOM	HOPE BALLROOM	TRIPPE BALLROOM
6:30 AM - 6:00 PM	<b>Registration</b>		
7:00 AM - 8:00 AM	<b>Breakfast</b>		
8:00 AM - 9:00 AM	<b>Awards Session</b> <ul style="list-style-type: none"> <li>• Neilsen Foundation Allied Health Professional Research Award of ASIA</li> <li>• Apple Award • Vogel Award • Mulcahey Award • TRoHNS Award</li> <li>• Top 3 Oral Talk Awards • Top 3 Poster Awards • Early Career Awards</li> </ul>		
9:00 AM - 9:10 AM	Stretch Break/Transfer to Next Session		
9:10 AM - 10:30 AM	<b>Course 16</b> Management of Male Sexual Dysfunction and Infertility After Spinal Cord Injury (SCI) ● <a href="#">Click Here for Abstract</a>	<b>Course 17</b> SCI-ENce: Matching the Arrows of ENgineering to the Targets of SCI Medicine ● <a href="#">Click Here for Abstract</a>	<b>Course 18</b> <b>TRIP</b> Neurogenic Obesity and Metabolic Dysfunction After Spinal Cord Injury: Translating Observations from Bedside to Bench ● <a href="#">Click Here for Abstract</a>
10:30 AM - 10:45 AM	Stretch Break/Transfer to Next Session		
10:45 AM - 11:45 AM	<b>General Session 7</b> A Tour de Force of the System Wide Impacts of SCI ● <a href="#">Click Here for Abstracts</a>	<b>General Session 8</b> The Lived Experience: Health, Heatwaves, and Haute Couture ● <a href="#">Click Here for Abstracts</a>	<b>Course 19</b> <b>TRIP</b> What AI and Data Science Can Tell Us About SCI ● <a href="#">Click Here for Abstract</a>
11:45 AM - 11:55 AM	Stretch Break/Transfer to Next Session		
11:55 AM - 12:55 PM	<b>Course 20</b> Addressing Suicide Risk Among Patients with Catastrophic Injury and Neurological Illness ● <a href="#">Click Here for Abstract</a>	<b>Course 21</b> Leadership Skills in the Digital Age: Leveraging Social Media for Dissemination to People with Spinal Cord Injury and Study Recruitment ● <a href="#">Click Here for Abstract</a>	<b>Course 22</b> <b>TRIP</b> Enhancing Recovery After Spinal Cord Injury with Closed-loop Vagus Nerve Stimulation ● <a href="#">Click Here for Abstract</a>
12:55 PM - 1:00 PM	<b>Conclusion</b>		

**NEW!**

## UROLOGY

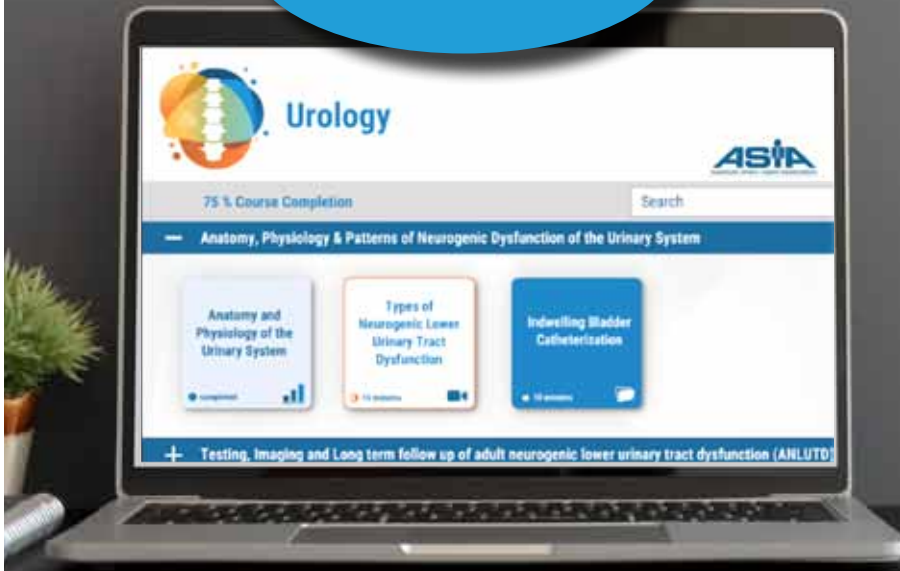
*in the ASIA Learning Center*

1. Anatomy & Physiology Neurogenic Dysfunction
2. Testing Imaging Long Term Follow-up
3. Mechanical Methods of Bladder Mgmt.
4. Pharmacological Methods of Bladder Mgmt.
5. Surgical Treatments for Bladder Mgmt.
6. Urinary Tract Infections in Persons with SCI
7. Urological Complications Following SCI
8. Neurogenic Bladder in the Pediatric Population

*Thank you to the ASIA Education  
subcommittee on Urology*



Using ASIA's Next-Gen Learning



## ASIA PODCASTS The SCI Science Perspectives

Two perspectives on emerging scientific literature spanning the full spectrum of spinal cord injury research, from discovery to clinical application.

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<https://asia-spinalinjury.org>





# 2023 ANNUAL SCIENTIFIC MEETING COURSES

## MONDAY, APRIL 17TH, CONTINUED

Course	Moderator	Presenters
<b>COURSE 1 TRIP</b> Closing the Loop: Next-Generation Epidural Stimulation and Neuroethical Lessons from the Past	Ryan Solinsky, MD	David Borton, PhD Jonathan Calvert, PhD Lauren Sankary, JD
<b>COURSE 2</b> Where to Start? Perspectives and Tools for Crafting a Meaningful Community Engagement Program In SCI Research	Jennifer French, MBA	Kim Anderson-Erisman, PhD Cheryl Vines Melissa Miller, PhD John Chernesky
<b>COURSE 3</b> Operant Conditioning of Muscle-Evoked Potentials for Enhancing Motor Function Recovery After Spinal Cord Injury	Aiko Thompson, PhD	Sue Ann Sisto, PT, MA, PhD, FACRM Blair H.S. Dellenbach, MSOT Isaac P. Clements, PhD
<b>COURSE 4 TRIP</b> Combinatorial Therapies for Functional Restoration after Spinal Cord Injury (presented by SCOPE)	Monica Perez, PT, PhD	Linda Jones, PT, PhD Gordon Mitchell, B.S, PhD Martin Oudega, PhD
<b>COURSE 5</b> Developing a Strong Base for Athletes of Adaptive Sport: Keys to Keeping an Athlete's Shoulders in the Game	Meegan Van Straaten, PhD, MSPH	Shanterian King, DO Robert Pagan Rosado, M Stephanie Lopez, DPT, PT, ATC
<b>COURSE 6</b> The Future of SCI Education: Advances, Priorities, and Challenges in the Next Decade	Ronald Reeves, MD	Brittany Snider, DO Steffen Franz, MD Megan Torrance, MBA Steven Jackson, MD, MBA Jeanne Zanca, MPT, PhD
<b>COURSE 7 TRIP</b> Emerging Strategies to Treat Spasticity and Understand Its Role In Motor Control and Recovery After Spinal Cord Injury	Kajana Satkunendrarajah, PhD	Frédéric Brocard, PhD, HDR Carmelo Bellardita, PhD Monica Perez, PT, PhD

continued

# COURSES

**TUESDAY, APRIL 18TH,** CONTINUED

Course	Moderator	Presenters
<b>COURSE 8</b> <b>TRIP</b> Impaired Respiration and Infection Susceptibility after SCI	Angela Filous, PhD	Philippa Warren, PhD Warren Alilain, PhD Marcel Kopp, MD
<b>COURSE 9</b> Beyond ISNCSCI: Considerations for Additional Profiling in SCI Clinical Trials	Keith Tansey, MD, PhD, FASNR, FASIA	Steve Kirshblum, MD James Guest, MD, PhD, FACS, FASIA
<b>COURSE 10</b> Addressing The Priorities of Individuals with Spinal Cord Injury: Spinal Cord Stimulation for Improving Sexual, Lower Urinary Tract, and Bowel Function Following Spinal Cord Injury	Claire Shackleton, PhD	Stacy Elliott, MD, FASIA Raza Malik, PhD Tiev Miller, PhD
<b>COURSE 11</b> <b>TRIP</b> The Good, The Bad, and the Unknown: Is Stretching Beneficial or Detrimental After Spinal Cord Injury?	Edelle Field-Fote, PT, PhD, FAPTA, FASIA	Emily Fox, DPT, MHS, PhD David Magnuson, PhD Anastasia Zarkou, PT, PhD
<b>COURSE 12</b> <b>TRIP</b> Tools of the Trade: Evaluating Strengths and Limitations of Cardiovascular Assessment Practices	Soshi Samejima	Andrei V. Krassioukov, PhD, MD, FRCPC Tamila Kalimullina, BSc Shane Balthazaar, PhD, RDCS, FASE
<b>COURSE 13</b> The Physiology and Function of Exercise: A multidisciplinary Colaboration for Addressing Exercise, Activity and Wellness with Spinal Cord injury	Lisa Ruppert, MD	Erin Prentice OT Nina Tamaya DO Kristin Gustafson DO Marissa Malady OT
<b>COURSE 14</b> The State of Clinical Trials: Recent Observations from a Clinical Research Organization (CRO) Perspective and Implications for New Researchers and Research Programs	Isa McClure PT, MAPT 	Jim Hamer, BS Keith Tansey, MD, PhD, FASNR, FASIA
<b>COURSE 15</b> <b>TRIP</b> Physiological Targets of Therapeutic Acute Intermittent Hypoxia	Gordon Mitchell, PhD	Emily Fox, PT, PhD Elisa Gonzalez-Rothi, PT, PhD Christopher West, PhD Randy Trumbower, PT, PhD

*continued*



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# COURSES

## WEDNESDAY, APRIL 19TH

Course	Moderator	Presenters
<b>COURSE 16</b> Management of Male Sexual Dysfunction and Infertility After Spinal Cord Injury (SCI)	Emad Ibrahim, MD, HCLD	Emad Ibrahim, MD, HCLD Stacy Elliott, MD
<b>COURSE 17</b> SCI-ENce: Matching the Arrows of Engineering to the Targets of SCI Medicine	Dennis Bourbeau,	Keith Tansey, MD, PhD, FASNRR, FASIA Quentin Sanders, PhD R James Cotton, MD, PhD Philip Requejo, PhD
<b>COURSE 18</b> <b>TRIP</b> Neurogenic Obesity and Metabolic Dysfunction after Spinal Cord Injury: Translating Observations from Bedside to Bench	Gary Farkas, PhD	Cedric Geoffroy, PhD Jae Lee, PhD
<b>COURSE 19</b> <b>TRIP</b> What AI and Data Science Can Tell Us About SCI	Abel Torres Espin, PhD	Catherine Jutzeler, PhD Nader Fallah, PhD Russell Huie, PhD
<b>COURSE 20</b> Addressing Suicide Risk Among Patients with Catastrophic Injury and Neurological Illness	Jacqueline Baron-Lee, PhD	Laurie Baker, PhD Michael Yochelson, MD
<b>COURSE 21</b> Leadership Skills in the Digital Age: Leveraging Social Media for Dissemination to People with Spinal Cord Injury and Study Recruitment	Jennifer Coker, PhD, MPH	David W McMillan, PhD Amanda Rounds, PhD Cody Unser, MPH
<b>Course 22</b> <b>TRIP</b> Enhancing Recovery after Spinal Cord Injury with Closed-loop Vagus Nerve Stimulation	Chad Swank	Rita Hamilton, DO Rob Rennaker, PhD Jane Wigginton, MD

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# 2023 ANNUAL SCIENTIFIC MEETING

## GENERAL SESSIONS

### AWARDS-ELIGIBLE ORAL PRESENTATIONS

TUESDAY, APRIL 18TH ❖ 8:30 AM - 9:40 AM

Moderator: Steven W. Brose, DO

Oral Presentations	Presenters
Motor Scores Prediction from Light Touch and Pin Prick Scores in the International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI)	Christian Schuld, Msc
Untreated Moderate-To-Severe Sleep-Related Breathing Disorders is Correlated with Increased Number of Silent Episodes of Autonomic Dysreflexia During Sleep in Individuals Living with Subacute or Chronic Spinal Cord Injury: A Prospective Cross-Sectional Study	Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN
Loss Of Cortical Inhibition in Chronic Spinal Cord Injury: Clinical Implications for Sensorimotor Impairment, Functional Capability, And Self-Care Independence	Jia Liu, PhD
Development of the Pediatric Appraisals of Disability Primary and Secondary Scale (Pedsadapss): Qualitative Methods	Kyle Deane, PhD
Healthcare Experiences of LGBTQ+ Persons Who Live with Spinal Cord Injury	Jenny Kiratli, PhD
NVG-291 Phase 1 Results and Phase 1b/2a Study Design in Individuals with Spinal Cord Injury	Daniel Mikol, MD, PhD

*continued*



# GENERAL SESSIONS

**MONDAY, APRIL 17TH,** CONTINUED

Oral Presentations	Presenters
<b>11:25 AM - 12:25 PM ❖ Moderator: Matheus Wiest, PhD</b> <b>General Session 1: Ambulation, Copulation and Colonization Topics In SCI</b>	
Safety, Feasibility, and Usability of The ABLE Lower-Limb Robotic Exoskeleton for Individuals with SCI – Results of a European Multicenter Study	Rüdiger Rupp, PhD
Using Classification Trees to Assist Clinicians in Establishing Nuanced Prognosis of Walking Outcomes Following Traumatic Spinal Cord Injury: A Population-Based Study	Antoine Dionne, MD, MSc
The Convergent Validity of the Standing and Walking Assessment Tool (SWAT) Among Individuals with Non-Traumatic Incomplete Spinal Cord Injury: The Spinal Cord Injury Implementation and Evaluation Quality Care Consortium Experience	Cathy Craven MD, MSc, FRCPC, FASIA
Let’s Talk About Sex: Male Sexual Dysfunction and Spinal Cord Stimulation Following Spinal Cord Injury	Claire Shackleton, PhD
Pregnancy Outcomes in Women with Spinal Cord Injuries: A Population-Based Study	Deborah Crane, MD, MPH
The Microbiological Burden of Short-Term Catheter Reuse in Individuals with Spinal Cord Injury: A Prospective Clinical Trial	Tiev Miller, PhD
<b>11:25 AM - 12:25 PM ❖ Moderator: John Kramer, PhD</b> <b>General Session 2: From Pediatrics &amp; Pain to Prodding and Population Level Statistics</b>	
The International SCI Pain Basic Data Set Version 3.0	Eva Widerstrom-Noga, DDS, PhD
Challenges In the Classification of Central Cord Syndrome	Einat Engel-Haber, MD BSc
Transcranial Magnetic Stimulation Assessment in Patients with Subacute Spinal Cord Injury During Inpatient Rehabilitation	Hui-Ting Shih, PT, PhD
Patterns Of Cannabis and Cannabinoid Use Among People with Chronic SCI: Results from A Cross-Sectional Study	Jennifer Coker, PhD, MPH
Pediatric Traumatic Spinal Cord Injury in the United States: A 2019 Nationwide Readmission Analysis	James Crispo, MSc, PhD
The Effects of Concomitant Traumatic Brain Injury (TBI) on the Epidemiology of Spinal Cord Injury (SCI), Access to Treatment Services, and Outcomes After Acute Traumatic SCI: A Propensity-Score Matched Cohort Study Using Data from a Canadian National Registry	Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN

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<sup>1</sup>Topline results from Up-LIFT pivotal study demonstrate improvement in arm and hand strength and function with ARC<sup>EX</sup> Therapy

<sup>2</sup>Positive topline observations from LIFT Home Study with ARC<sup>EX</sup> Therapy

<sup>3</sup>Interim outcomes from ARC<sup>IM</sup> studies show improvement in blood pressure regulation and quality of life for people with SCI-related orthostatic hypotension

More details on these studies can be found on [ir.onwd.com](http://ir.onwd.com) in the News and Events section



# 2023 ANNUAL SCIENTIFIC MEETING

## GENERAL SESSIONS

**TUESDAY, APRIL 18TH,** CONTINUED

Oral Presentations	Presenters
<b>11:40 AM - 12:40 PM ♦ Moderator: Shane Balthazaar, PhD</b> <b>General Session 3: Vessels, Vasoconstriction, and Ventilation</b>	
Adjuvant Ethyl Nitrite as A Novel Neuroprotective Approach to Hemodynamic Management Following SCI	Ryan Hoiland, PhD
Item Banks for Measuring the Impact of Blood Pressure Dysregulation on Health-Related Quality of Life in Persons with Spinal Cord Injury	Jill Wecht, EdD
Vascular Spinal Cord Dysfunction Etiologies and Outcomes 1995-2020	Melanie White, DO, PGY-3
Elucidating Sympathetic Vasoconstrictor Mechanisms of Autonomic Dysreflexia in Persons with Spinal Cord Injury	Michelle Trbovich, MD
Noninvasive Spinal Neuromodulation Mitigates Orthostatic Hypotension Following Spinal Cord Injury: Translational Evidence	Rahul Sachdeva, PhD
Treating Sleep-Related Breathing Disorders with CPAP Therapy for 4 Months Can Improve Sleep Quality and Daytime Alertness, Fatigue, and Mental Health in People with Chronic Spinal Cord Injury: An Update on an Ongoing Study Using Mixed Methods	Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN
<b>11:40 AM - 12:40 PM ♦ Moderator: Rajiv Saigal, MD, PhD, FAANS</b> <b>General Session 4: Topics in Acute Phase Clinical Research and Care</b>	
Predicting Subacute Motor Recovery in Tetraplegia by Early Assessment of Subclinical Voluntary Motor Unit Action Potentials and Stimulated Manual Motor Testing	James Wilson, DO
The Importance of Tracheostomy Management in Cervical Spinal Cord Injured Patients and the Role of Diaphragm Pacing in a Systems Approach	Raymond Onders, MD
Risk and Protective Factors for Emergency Department Visits and Related Hospitalizations Among Ambulatory Adults with Traumatic Spinal Cord Injury	Nicole DiPiro, PhD
NX210c Peptide Promotes Functional Recovery and Repair in a Rat Cervical Clip-Compression Model of Spinal Cord Injury	Sighild Lemarchant
An Electromyographic Method of Hoffman Reflex Assessment Adapted for Hospitalized and Acute Spinal Cord Injury Patients to Study its Evolution During the Spinal Shock Period	Christina-Maria Maalouf
Challenges And Barriers to Performing Activity-Based Therapy During the First 2 Weeks Following Traumatic Spinal Cord Injury	Antoine Dionne, MD, MSc

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# GENERAL SESSIONS

**TUESDAY, APRIL 18TH,** CONTINUED

Oral Presentations	Presenters
<b>3:20 PM - 4:20 PM ❖ Moderator: Lisa A. Beck MS, APRN, CNS, CRRN</b> <b>General Session 5: Neuromodulation: Participant Perspectives, Public Perceptions, and Practical Applications</b>	
Proof-of-Concept: A Hands-Free Interface for Robot-Assisted Self-Feeding	John Schultz
Shaping Public Perception of Spinal Cord Stimulation: A Scoping Review of Publicly Accessible Web-Based Information	Tiev Miller, PhD
Translation of a Wearable, Non-Invasive Stimulation Device to Treat Incontinence in People with Neurogenic Bladder	Seth Meade, BSE
Spinal Cord Mapping for Pelvic Organ Function Using Non-Invasive Spinal Neuromodulation	Raza Malik, Postdoctoral Fellow
Non-invasive Spinal Neuromodulation for Bowel and Lower Urinary Tract Functions	Soshi Samejima, DPT, PhD
Importance and Feasibility of Measuring Different Biomarkers to Profile Participants and Detect Treatment Effects in SCI Neuromodulation Studies	Keith Tansey, MD, PhD, FASIA
<b>3:20 PM - 4:20 PM ❖ Moderator: Camilo Castillo, MD, MBA</b> <b>General Session 6: Barriers to Transcend in the Pursuit of Health and Wellness After SCI</b>	
Main Barriers for Practicing Adapted Sports in Latin America from the Perspective of the Provider Caring for Individuals with a Spinal Cord Injury	Isaac Hernandez Jimenez, MD
The Implementation of National Telehealth Services in Spinal Cord Injury	Candace Tefertiller PT, DPT, PhD, NCS
Spinal Cord Injury Research Participant’s Views on Data Sharing	Freda Warner, Dr
Co-Creating Theory – And Evidence-Based Training Modules on Best Practices for Physical Activity Counseling for Adults with Spinal Cord Injury	Femke Hoekstra, PhD
When Both the Destination and Journey Are Important: Ideal Care Pathways for Traumatic Spinal Cord Injury in Ontario	Matheus Wiest, PhD
A Mixed Methods Approach to Evaluating the Feasibility and Acceptability of a Brief Motivational Intervention to Improve Health Behaviors	Alicia January, PhD

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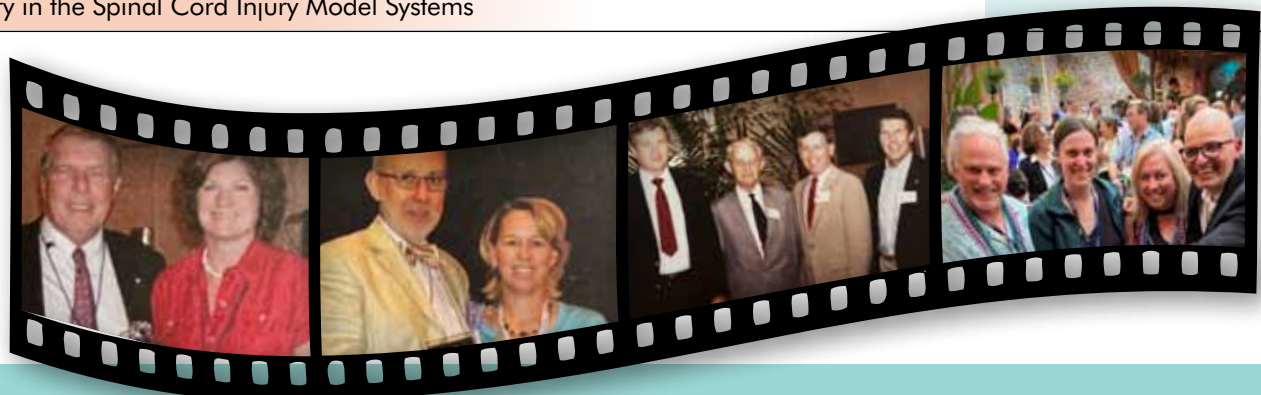


# 2023 ANNUAL SCIENTIFIC MEETING

## GENERAL SESSIONS

**WEDNESDAY, APRIL 19TH**

Oral Presentations	Presenters
<b>10:40 AM - 11:40 AM ❖ Moderator: Isa McClure, PT, MAPT</b> <b>General Session 7: A Tour de Force of the System Wide Impacts of SCI</b>	
Sensory Cortical-Locomotor Pathway Restores Walking After Spinal Cord Injury	Kajana Satkunendrarajah, PhD
Comparing Heart Rate Variability Biofeedback Training and Meditation Relaxation Techniques for Pain Management in Individuals with Paraplegia from Spinal Cord Injury: A Pilot Study	Lisa Haubert, MPT, DPT, KEMG
Total Energy Intake Prediction Equations Overestimate Relative to Actual Intake in Spinal Cord Injury	Gary Farkas, PhD
Cardiometabolic Risk Calculations in Spinal Cord Injury/Disorders: Results of an Exploratory Analysis	Khin Chan, MBBS, MS
The Overreaction of the Immune Response After Spinal Cord Injury and Methods to Reduce Inflammation	Daniel Hellenbrand, MS
<b>10:40 AM - 11:40 AM ❖ Moderator: Indira Lanig, MD</b> <b>General Session 8: The Lived Experience: Health, Heatwaves, and Haute Couture</b>	
Climate and Healthcare Access: Understanding the (In) Equitable Influence of Extreme Weather Events on Spinal Cord Injured Individuals in Miami, Florida	Daniel Samano, MD, MPH, MSCHc
Social Participation as a Mediator of the Relationships of Socioeconomic Factors and Longevity After Traumatic Spinal Cord Injury	Yue Cao, PhD
Young Adult Programming	Tayla Mangus, MS, OTR/L Lindsay Brinker, PT, DPT
Fashionable: Current Practices and Barriers to Adaptive Clothing Among Individuals with Spinal Cord Injury	Nicole Banting
Fashionable: Perspectives on Functional and Fashion-Friendly Adaptive Clothing Among Individuals with Spinal Cord Injury	Bianca Magdangal
Complementary and Integrative Healthcare Coverage for People with Spinal Cord Injury in the Spinal Cord Injury Model Systems	Bria MacIntyre, MS





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# 2023 ANNUAL SCIENTIFIC MEETING

## POSTERS

### AWARDS-ELIGIBLE POSTERS

- 1** FashionABLE: Health Care Practitioners' Perspectives on Adaptive Clothing After Spinal Cord Injury  
❖ *Tamila Kalimullina, BSc*
- 2** Work-Related Spinal Cord Injury (SCI): Does Race/Ethnicity Matter?  
❖ *Huacong Wen, PhD*
- 3** Effects of Midodrine Administration Over a 30-Day Period Compared to Placebo, on Blood Pressure and Cerebral Blood Flow Velocity and Cognitive Performance in Persons with SCI  
❖ *Caitlyn Peters, PhD*
- 4** The Gut Microbiome After SCI: A Preliminary Analysis of Bacterial Quorum Sensing Molecules to Identify Molecular Mechanisms of GI Dysfunction  
❖ *Mark Nash, PhD, FACS, FASIA*
- 5** Feasibility Study of Smart Seat Cushion for Automated Interface Pressure Modulation  
❖ *Aida Nasirian, Research Scientist II*
- 6** Comparative Efficacy of Four Different Transcranial Current Stimulation Modalities and Montages for Enhancing Corticospinal Excitability and Improving Upper Extremity Functional Restoration in Persons with Tetraplegia  
❖ *Jennifer Iddings, PhD*
- 7** Effects of Lumbosacral Spinal Cord Epidural Stimulation on Plasma Catecholamine Concentrations During Orthostatic Stress in Individuals with Chronic Spinal Cord Injury  
❖ *Siqi Wang, PhD*
- 8** Multi-session Application of Transcranial Random Noise Stimulation to Improve Hand Function in Persons with SCI  
❖ *Anastasia Zarkou, PT, MS, PhD*
- 9** Alterations of Visual Cortex in Chronic Adult SCI: The Underpinnings of the Resting State BOLD fMRI  
❖ *Laura Krisa, PhD*
- 10** American Spinal Injury Association (ASIA) Impairment Scale (AIS) Conversion Underestimates Neurological Recovery Following Traumatic Spinal Cord Injury  
❖ *Winward Choy, MD*

*continued*



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# 2023 ANNUAL SCIENTIFIC MEETING POSTERS

## ACUTE CARE

- 11** Exploratory Analyses of Factors Associated with Discharge Home after Acute SCI Inpatient Rehabilitation  
❖ *Benjamin Dirlikov*
- 12** A Pilot Survey Identifying Gaps in Spinal Cord Injury Intervention in Post-Acute Settings: A Therapist's Perspective  
❖ *Rebecca Hutton, OTS*
- 13** Metabolite's Role in Bio-Fluids as A Prognostic Indicator of Neurological Recovery In Acute Spinal Cord Injury (ASCI)  
❖ *Alka Singh, Dr.*

## BOWEL/BLADDER

- 14** Changing Bowel Pattern in Young Man with Chronic Paraplegia and Neurogenic Bowel: A Case Report  
❖ *Kaila Yeste, DO*
- 15** Can Urinalysis or Urine Culture Describe a "Pre-Symptomatic" State in People with Neurogenic Lower Urinary Tract Dysfunction Who Use Intermittent Catheterization?  
❖ *Allison Maxwell, BA*
- 17** The Temporal Burden Associated with Preparing Catheters for Reuse Among People with Spinal Cord Injury: A Cross-Sectional Study  
❖ *Liza Roik*

## CARDIOVASCULAR

- 18** May I Have This Dance: A Case-Series on the Acute Cardiometabolic Demand and Psychosocial Effects of Wheelchair Dancing in Recreational Para-Dancers with Spinal Cord Injury  
❖ *Tiev Miller, PhD*
- 20** Risk of Ischemic Heart Disease Readmission After Traumatic Spinal Cord Injury  
❖ *Analisa Jia, MSc*
- 21** Vascular Spinal Cord Dysfunction Survival Analysis and Hazard Ratio 1995-2020  
❖ *Melanie White, DO, PGY-3*

## DATASETS

- 22** Breastfeeding for Mothers with Spinal Cord Injury: A Narrative Review on the Quality and Availability of Current Guidelines  
❖ *Tiev Miller, PhD*
- 23** Retrospective Analysis of the Treatment of BPPV in Persons with Sub-Acute Spinal Cord Injury  
❖ *Ryan Koter, PT, DPT*
- 24** Differences in Personal Characteristics, Emergency Department Utilization, and Hospitalizations Among Ambulatory and Non-Ambulatory Adults with Traumatic Spinal Cord Injury  
❖ *Nicole DiPiro, PhD*
- 25** Utilization of Machine Learning Techniques in Prediction of Hospital Readmission During One Year Post Spinal Cord Injury  
❖ *Salma Aly, MD*
- 26** The Influence of Concomitant Traumatic Brain Injury on The Survival, and Neurological and Functional Recovery After Acute Traumatic Spinal Cord Injury: A Retrospective Cohort Study Using Data from the NASCIS-3 Trial  
❖ *Julio Furlan, MD, LLB, MBA, PhD, Msc, FRCPC, FAAN*
- 27** The State of Spinal Cord Injury Rehabilitation in Youth in Latin America  
❖ *Isaac Hernandez Jimenez, MD*
- 28** Wheelchair Rugby Participation in Spinal Cord Injury Individuals in Argentina  
❖ *Isaac Hernandez Jimenez, MD*

## EXERCISE

- 29** Preliminary Findings for a Sequential Multiple Assignment Randomized Trial (SMART) to Increase Adherence to Home Exercise in People with Spinal Cord Injury  
❖ *Jereme Wilroy, PhD*
- 30** 3 Months of Blood Flow Restriction Training Improves Gait Capacity in Chronic Incomplete Spinal Cord Injury  
❖ *Jane Alkhazov, PT, DPT*
- 31** Integrating Activity-Based Therapy into Subacute Spinal Cord Injury Rehabilitation  
❖ *Catherine Farrell, PT, NCS*
- 32** Spinal Cord Injury Enrollment Experiences in Studies Using Overground Exoskeleton Gait Training During Inpatient Rehabilitation  
❖ *Faith Meza, MPH, CPH*

*continued*

# POSTERS

## IMAGING

- 33** Cortical Areas of Activation Following the ISNCSCI Test of Injury Completeness: a Pediatric fMRI Study  
❖ *Laura Krisa, PhD*
- 34** Perturbations of BOLD fMRI Signal of Human Occipito-Temporal Visual Cortex in Chronic Pediatric SCI Population  
❖ *Laura Krisa, PhD*

## STANDARDS

- 36** Feasibility of Conducting the International Standards to Document Autonomic Function Following Spinal Cord Injury (ISAFSCI) in Newly Injured Patients with SCI  
❖ *Ivani Proano, MBS*

## MEASUREMENT & EVALUATION TOOLS

- 38** Ultrasound Evaluation of Intralesional Muscle Integrity Following Cervical Spinal Cord Injury  
❖ *Hannah Ro, Fourth-Year Undergraduate Student*
- 39** Setting Up a Platelet-Rich Plasma Protocol for Pressure Injury Management in a Spinal Cord Injury/Disorder Unit  
❖ *Kevin Suarez, MD*
- 40** Wearable Sensors to Measure Shoulder Motion in the Free-Living Environment in Wheelchair Users with SCI: Technical Challenges and Recommendations  
❖ *Melissa Morrow, PhD*
- 41** Measurement of Magnetization Transfer Ratio in Typically Developed Pediatric Spinal Cord: Clinical Feasibility, Assessment of Normative Data, and Age Correlation  
❖ *Laura Krisa, PhD*
- 42** Increasing Falls and Alcohol: Changes in the Etiology of Traumatic Spinal Cord Injuries in the Upper Midwest United States  
❖ *Ben Johnson, N/A*
- 43** Ultrasound Evaluation of Diaphragm Function in Patients with SCI: Lessons Learned, Future Directions  
❖ *Philippines Cabahug, MD*

## NEUROMODULATION

- 44** A Brain-Computer Interface Neuromodulation Intervention to Reduce Neuropathic Pain After Spinal Cord Injury  
❖ *Negin Hesam-Shariati, PhD*
- 45** Implantable Health Monitoring for Spinal Cord Injury  
❖ *Kevin Kilgore, PhD*

- 46** Axial Damage Ratio May Relate to Standing Performance Following Percutaneous Epidural Stimulation in Persons with Spinal Cord Injury  
❖ *Ahmad Alazzam, B.S.*
- 47** Effects of Transcutaneous Spinal Stimulation Versus Whole Body Vibration on Quadriceps Spasticity in Persons with Spinal Cord Injury  
❖ *Evan Sandler, PT, DPT*
- 48** Quantifying Neuromodulation in Persons with SCI: A Comparison of Modulatory Responses to Low-Frequency Depression Versus Paired-Pulse Stimulation  
❖ *Charles Creech, PT, DPT*
- 49** Optimizing Transcutaneous Spinal Stimulation Through Efficient Assessment of Posterior Root Muscle Reflex Excitability  
❖ *Oliver Daliet IV, MS*
- 50** Optimizing Deep Brain Stimulation of the Midbrain Locomotor Region for Gait Control After Incomplete Spinal Cord Injury in a Translational Large Animal Model  
❖ *Brian Noga, PhD*
- 51** Single Lead Midline Epidural Stimulation Immediately Restored Trunk Control and Standing in a Person with Complete Paraplegia  
❖ *Ashraf Gorgey*
- 52** Utilizing Neuromodulation in the Treatment of Spinal Cord Injury: An Assessment of Clinical Trials from the National Clinicaltrials. Gov Database  
❖ *Moshe Shalom, Medical Student*

## PRESSURE INJURY

- 53** Effects of Repositioning Angle on Interface Pressure Using Automated Bed in Spinal Cord Injury Patients  
❖ *Onyoo Kim, MD*
- 54** Community Evaluation of a Novel Real-Time Pressure Sensing and Pressure Relief Activity Feedback System for Manual Wheelchair Users with Spinal Cord Injury: A Focus Group Analysis  
❖ *Jack Janett, B.S. Human Biology*
- 55** Measuring Pressure Within Pressure Ulcers - A Biomechanical Approach  
❖ *Gregory Dimas, MD*
- 56** Evaluating Independent In-Bed Mobility During Sleep After Acute Spinal Cord Injury to Assess the Risk of Pressure Injuries  
❖ *Jean-Marc Mac-Thiong, MD, PhD*

*continued*

# POSTERS

## PSYCHOSOCIAL

- 57** Implementation of a Formal Education Program for Caregivers and Youth with SCI/D  
❖ *Kristen Wagner, PT, DPT*
- 58** Positive Psychosocial Changes Relating to Physical Activity Behavior After Participation in a Group Tele-Exercise Program for Individuals with SCI  
❖ *Laura Baehr, PT, DPT, PhD(c) (defense 2/2023)*
- 59** Physical and Psychosocial Features of Exercisers vs. Non-Exercisers with SCI Enrolled in a Group Tele-Exercise Program  
❖ *Laura Baehr, PT, DPT, PhD(c) (defense 2/2023)*
- 60** Pain and Life Satisfaction: The Role of Emotional Support and Social Participation in Adults with Pediatric-Onset Spinal Cord Injury  
❖ *Alison Oh, MS*
- 61** Frequency of Employment and Factors Related to Labor Activity Inclusion in Patients with Spinal Cord Injury at the National Institute of Rehabilitation in Mexico  
❖ *Karla Zarco Ordóñez, MD*
- 62** Problem Solving and Collaborative Involvement Among Adolescents with Spinal Cord Injury and their Caregivers  
❖ *Olivia Clark, MA*
- 63** Developing a Community-Based Peer-Mentoring Program for Adolescents and Young Adults After Spinal Cord or Brain Injury  
❖ *Shari McDowell, PT, DPT*
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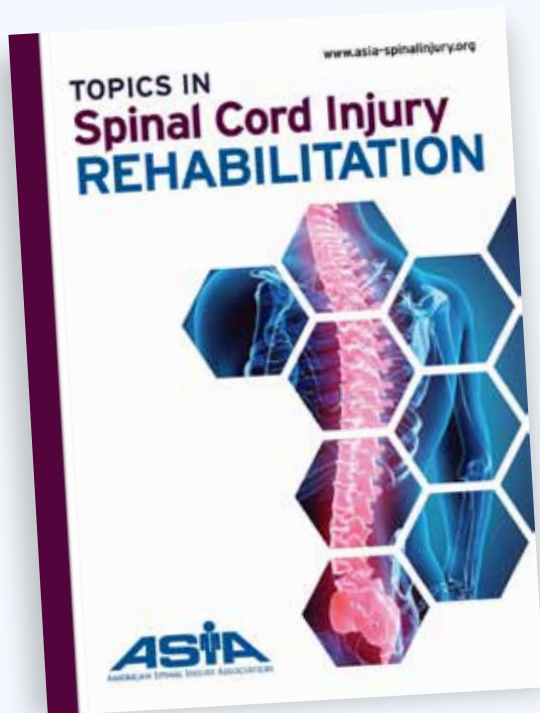
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## Topics in Spinal Cord Rehabilitation

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!

## The International Standards for Neurological Classification of Spinal Cord Injury (ISNCSCI)

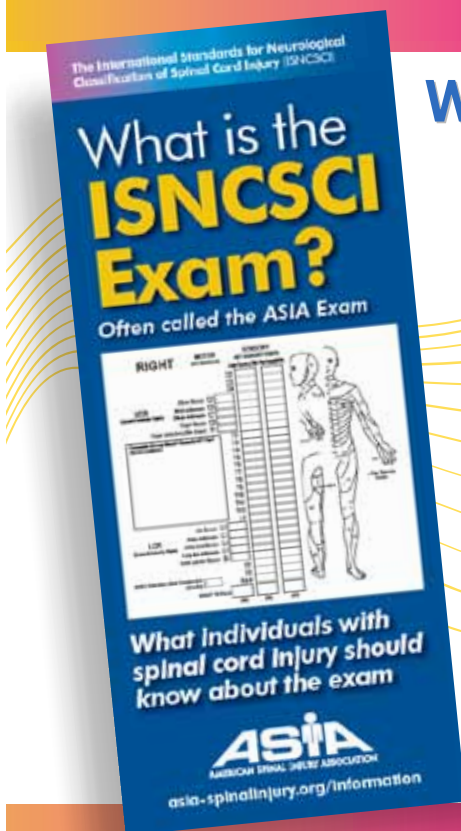
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# The SCI Community



## ANNOUNCING TWO NEW PUBLICATIONS

The American Spinal Injury Association is pleased to announce two new Publications for Spinal Cord Injury Professionals, Patients, and Caregivers.

The Durable Medical Equipment Guide and the SCI Traveler were created by experts in the field of Spinal Cord Injury and Rehabilitation.

### DURABLE MEDICAL EQUIPMENT GUIDE

### THE SCI TRAVELER

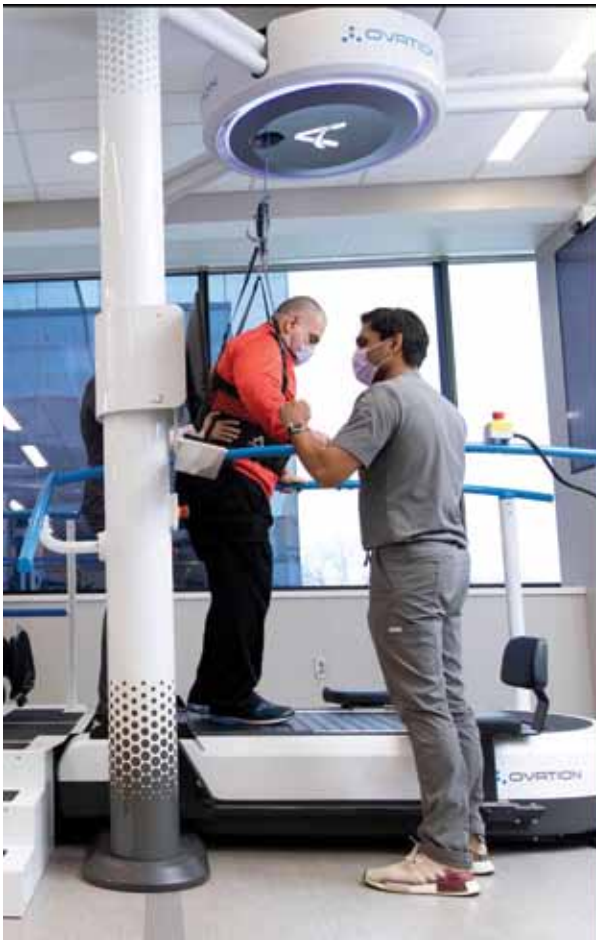


Scan QR Codes using the camera app on your phone. Click the link that pops up to connect to the online SCI Traveler or the DME Guide!



Sponsorships are available for both publications. This is a high-visibility opportunity! Contact the ASIA office if you would like to sponsor the DME Guide and/or the SCI Traveler.

ASIA office: [asia.office@asia-spinalinjury.org](mailto:asia.office@asia-spinalinjury.org)



We've got the best team to help restore and improve lives.

Mayo Clinic provides comprehensive care to thousands of patients with spinal cord injury. Our collaborative team of professionals work to increase knowledge, advance the science, and provide state-of-the-art care.



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*Thank you members of ASIA Committees  
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Model System**

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The Spinal Cord Injury Research Center and Clinical Program at Mount Sinai conducts cutting edge research, provides lifelong SCI care, and is a leader in developing innovative programs designed to promote community reintegration.



**Monthly Activities**

- Monthly Newsletter "The Spinal Connection"
- Zoom Webinars/Presentations
- Share SCI events, programs, new treatments, research & developments via our social media pages

**Virtual Weekly Events**

- Meditation
- Sitress Fitness Class
- Transitions Support Group
- Women on Wheels Support Group
- Seated Zumba Dance Class
- SCI Peer Support Group
- Adaptive Boxing Class

**Services  
We Provide**

At The Mount Sinai Spinal Cord Injury Program, we offer several programs designed to facilitate community reintegration.

Activities include an adaptive sports program for individuals who have completed inpatient rehabilitation called the Life Challenge Adventure program, several support groups including a women-only group, online Fitness Classes, a meditation group, and a structured peer mentoring program.

For more information visit: [www.MountSinaiSCI.org](http://www.MountSinaiSCI.org)

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SCI Rehabilitation  
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**Spinal Cord Injury Care For The Busy Provider**

Care of individuals with spinal cord injury and dysfunction (SCI/D) can be complex. To address life-long needs of persons with SCI/D, this resource provides curated, and up-to-date information on management of secondary complications of SCI, tailored for the primary care provider.



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## Enabling the Nervous System to Repair Itself

NervGen is developing first-in-class *neuroreparative* therapeutics that **enable the nervous system to repair itself** following damage.

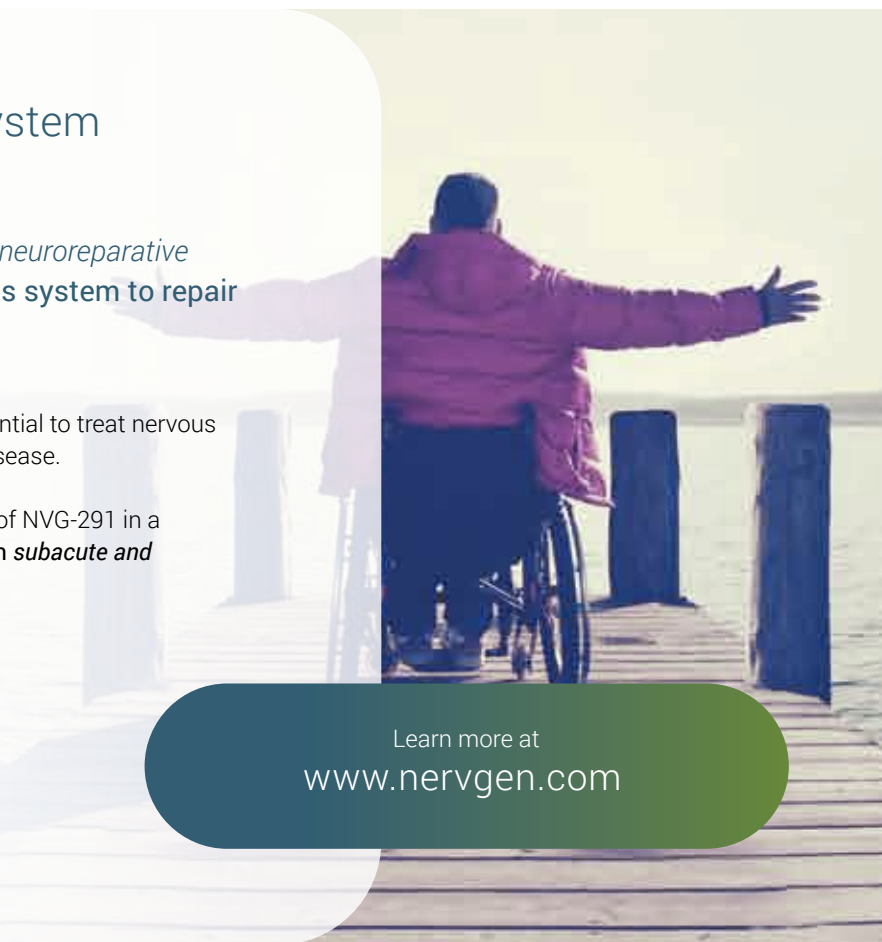
Our lead drug candidate, **NVG-291**, has potential to treat nervous system damage, whether due to injury or disease.

We plan to evaluate the efficacy and safety of NVG-291 in a **Phase 1b/2a clinical trial in individuals with *subacute and chronic* spinal cord injury** later this year.



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