ANNUAL
SCIENTIFIC MEETING
OCT 4 & 5 • 2020

The meeting will go on...
ALL ONLINE!
A PROUD SPONSOR OF THE
2020 ANNUAL
SCIENTIFIC MEETING

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

To learn more about funding opportunities, visit our website at
www.chnfoundation.org.
SUNDAY, OCTOBER 4TH

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<th>TIME (EST)</th>
<th>CONFERENCE ROOM 1</th>
<th>CONFERENCE ROOM 2</th>
<th>CONFERENCE ROOM 3</th>
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<tbody>
<tr>
<td>9:00 – 10:00 am</td>
<td>Mentor/Mentee Breakfast: Meet the ASIA Early Career Committee and learn about the new ASIA Mentorship Program</td>
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| 10:00 – 10:05 am | **Welcome and Introduction**  
Andrei Krassioukov, MD, PhD, FRCPC  
ASIA President (2019 - 2021)  
ICORD-BCSS, UBC GF Strong Rehabilitation Centre  
Vancouver, Canada | | |
| 10:05 – 10:35 am | **Lifetime Achievement Award** – Diana Cardenas, MD, MHA  
*Presented by Amie McLain, MD, FASIA*  
Diana Cardenas, MD, MHA will be honored as the ASIA 2020 Lifetime Achievement Award recipient. Dr. Cardenas is a physiatrist with an academic career of more than 40 years and a clinical, teaching, administrative, and research career primarily focused on spinal cord injury. | | |
| 10:35 – 11:25 am | **G. Heiner Sell Lecture** – Miguel Nicolelis, MD, PhD  
“Brain-machine interfaces: from Basic Science to Neurological Rehabilitation”  
Miguel Nicolelis, MD, PhD, Distinguished Professor at Duke University and founder of Duke’s Center for Neuroengineering, whose influential work in mammalian brain circuits have guided development of impactful technologies such as brain-machine interfaces. | | |
| 11:25 – 11:35 am | Passing Period | | |
| 11:35 am – 1:00 pm | **COURSE 1**  
SCI Clinical Trials by SCOPE: Considering Traditional RCT Study Protocols with Adaptive Design Approaches  
**Moderator:**  
John Steeves, PhD, FASIA  
*Click here for Abstract* | **COURSE 2**  
**Moderator:**  
Allan Peljovich, MD  
*Click here for Abstract* | **General Session:**  
Acute Care & Mixed Papers  
O-7, O-8, O-9, O-10, O-11, O-32, O-33  
(See page 7 for Abstracts) |
| 1:00 – 1:05 pm | Passing Period | | |
| 1:05 – 2:00 pm | **AWARD ELIGIBLE ORAL PRESENTATIONS**  
**Moderator:** Mark Nash, PhD  
O-1. Development of a Standardized Normative Pediatric Spinal Cord structural template – Shiva Shahrampour, MS  
O-2. Transplantation of autologous human Schwann cells accompanied by rehabilitation in participants with chronic spinal cord injury – Katie Gant, PhD  
*Click here for Abstracts*  
O-4. A deep learning approach for detecting hand-object interactions from egocentric videos after cervical spinal cord injury: First results in the home environment – Andrea Bandini, PhD  
O-5. Targeted spinal cord stimulation and neurorehabilitation for restoring leg motor control in individuals with spinal cord injury – Laura McCracken  
O-6. Cardiac-focused hemodynamic management mitigates increases to spinal cord anaerobic metabolism in a porcine model of acute high-thoracic spinal cord injury – Alexandra Williams, PhD |
SUNDAY, OCTOBER 4TH

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<td>2:00 – 3:00 pm</td>
<td>Lunch Break</td>
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<td>3:00 – 4:00 pm</td>
<td><strong>COURSE 4</strong></td>
<td><strong>COURSE 5</strong></td>
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<td></td>
<td>Recommendations for Evaluation of Neurogenic Bladder and Bowel Dysfunction after Spinal Cord Injury and/or Disease</td>
<td>Refining Outcome Measurements in Humans with Spinal Cord Injury</td>
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<td></td>
<td>Moderator: Tracey Wheeler, PhD</td>
<td>Moderators: Monica Perez, PhD &amp; Allen Heinemann, PhD</td>
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<td>4:00 – 4:30 PM</td>
<td><strong>SPONSOR EVENT</strong></td>
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<td>Please join and thank our generous conference supporters who remain loyal to our mission and annual meeting. Online attendees will have an opportunity to win several prizes during this session.</td>
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<td>4:30 – 4:40 pm</td>
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<td>4:40 – 5:40 pm</td>
<td><strong>COURSE 6</strong></td>
<td><strong>COURSE 7</strong></td>
<td><strong>COURSE 8</strong></td>
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<td>Moderator: Linda Jones, PT, PhD</td>
<td>Moderator: William Rymer, MD, PhD</td>
<td>Moderator: Stephanie Kolakowsky-Hayner, PhD, CBIST</td>
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<td>5:40 pm</td>
<td><strong>Presidential Reception</strong></td>
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<td><em>Hosted by Andrei Krassioukov, MD, PhD, FRCPC</em></td>
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<td>Hors d’oeuvres and Cocktails with Andrei and Chef Richard Sudberry</td>
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<td>Click here to learn more</td>
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## MONDAY, OCTOBER 5TH

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<th>TIME (EST)</th>
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<tr>
<td>10:00 – 10:30 am</td>
<td>Virtual Coffee</td>
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<td>with ASIA President Andrei Krassioukov, MD, PhD, FRCPC</td>
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<td>10:30 – 10:40 am</td>
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<td>10:40 – 11:40 am</td>
<td>COURSE 9 [TRIP]</td>
<td>COURSE 10</td>
<td>General Session:</td>
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<td></td>
<td>Breathing after Spinal Cord Injury: Plasticity and Therapeutic Advances</td>
<td>Transitions of Care: Why They Matter for People with SCI, Clinicians, and Researchers</td>
<td>Outcomes &amp; Craig H. Neilson 2017 &amp; 2018 Awardees</td>
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<td></td>
<td>Moderator:</td>
<td></td>
<td>O-12, O-13, O-14, O-15</td>
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<td></td>
<td>Warren Alilain, PhD</td>
<td>Moderator:</td>
<td>(See page 7 for Abstracts)</td>
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<tr>
<td></td>
<td>[Click here for Abstract]</td>
<td>Chlorie Slocum, MD</td>
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<td>11:40 am – 12:10 pm</td>
<td>scitralsfinder.net</td>
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<td>Get Updates on this new, invaluable website that provides individuals with SCI, their families and health care professionals information about clinical trials.</td>
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<td>Presenters: Paulina Scheuren and Robin Lütolf</td>
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<td>12:10 – 12:20 pm</td>
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<td>12:20 – 1:20 pm</td>
<td>COURSE 11 [TRIP]</td>
<td>COURSE 12</td>
<td>General Session:</td>
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<td>Moderator:</td>
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<td>O-16, O-17, O-18, O-19</td>
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<td></td>
<td>Teresa Pitts</td>
<td>Moderator:</td>
<td>(See page 7 for Abstracts)</td>
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<td>[Click here for Abstract]</td>
<td>Leslie Morse, DO</td>
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<td>1:20 – 2:20 pm</td>
<td>Lunch Break</td>
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<td>2:20 – 2:50 pm</td>
<td>General Session:</td>
<td>General Session:</td>
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<td>Upper Extremity Function O-20, O-21, O-22</td>
<td>Mixed Topics O-24, O-25, O-34</td>
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<td>(See page 8 for abstracts)</td>
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<td>2:50 – 3:00 pm</td>
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<td>3:00 – 4:00 pm</td>
<td>2020 Annual Meeting Awards Session</td>
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<td>Fellow of ASIA Awards • Neilsen Foundation Allied Health Professional Research Award of ASIA</td>
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<td>Apple Award • Vogel Award • Mulcahey Award • TRoHNS Award</td>
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<td>Anthony DiMarco Award • Top 3 Oral Talk Awards</td>
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### MONDAY, OCTOBER 5TH

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<tr>
<td>4:00 – 4:45 pm</td>
<td><img src="image" alt="Keynote Speaker – Dr. Federico Montero" /></td>
<td>Presented by Camilo Castillo, MD</td>
<td>“Spinal Cord Injuries in Latin America and the Caribbean (LAC) History and Perspective of a Journey”</td>
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<td>4:45 – 4:55 pm</td>
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| 4:55 – 5:55 pm | **COURSE 13**
The Spectrum of Translational Research in Spinal Cord Injury: Examples, Obstacles, and Victories
**Moderator:**
Argyrios Stampas, MD
[Click here for Abstract](#) | **COURSE 14**
America’s Perspectives on Spinal Cord Injury Care
**Moderator:**
Camilo Castillo, MD
[Click here for Abstract](#) | **COURSE 15**
Spinal Cord Injury, Disasters and Climate Change: What Professionals Need to Know
**Moderator:**
Marcalee Alexander, MD, FASIA
[Click here for Abstract](#) |
| 5:55 – 6:05 pm | Passing Period |  |  |
| 6:05 – 7:05 pm | **COURSE 16**
Predictive Value of Animal Research Experiments for Emerging Clinical Studies in SCI
**Moderator:**
Karim Fouad, PhD
[Click here for Abstract](#) | **COURSE 17**
International Standards to Document Autonomic Function after SCI: Revision 2020
**Moderator:**
Jill Wecht, EdD
[Click here for Abstract](#) | General Session:
Secondary Conditions
O-26, O-27, O-28, O-29
O-30, O-31
(See page 8 for Abstracts) |
GENERAL SESSIONS

ACUTE CARE & MIXED PAPERS: Meegan Van Straaten, PT
Sunday, Oct. 4, 2020 /11:35 am – 1:00 pm • Oral Talks 7-11, 32 and 33

ORAL TALK 7
Posterior Cervical Spine Fusion Increases the Risk of Feeding Gastrostomy Using a Propensity Score Matched Cohort
Brett Tracy

ORAL TALK 8
Ketogenic diet (kd) for improving neurorecovery after acute spinal cord injury – from rodents to humans
Ceren Yarar-Fisher, PT, PhD

ORAL TALK 9
Topological network analysis of high frequency intra-operative monitoring in patients with spinal cord injury reveals precise blood pressure range associated with neurological recovery
Abel Torres Espin

ORAL TALK 10
During an epidemic of gun violence in the United States, analyzing cervical spinal cord injury from gunshot wounds with respiratory compromise: the role of diaphragm pacing
Raymond Onders, MD, FACS, FASIA

OUTCOMES & CRAIG H. NEILSEN FOUNDATION ALLIED HEALTH 2017 & 2018 AWRARDEES: Heather Russell, PhD
Monday, Oct. 5, 2020 / 10:40 am – 11:40 am • Oral Talks 12-15

CRAIG H. NEILSEN FOUNDATION 2017 ALLIED HEALTH AWRARDEE
Evaluation of Splinting in Tetraplegia
Sara Kate Frye, MS OTR/L ATP

CRAIG H. NEILSEN FOUNDATION 2018 ALLIED HEALTH AWRARDEE
Seated Trunk Stability and Orthostatic Tolerance in SCI: Targeting the Diaphragm."
Anne E. Palermo PT, DPT

ORAL TALK 12
Evaluation of a self-report method to obtain ASIA Impairment Scale in people with SCI who reside in the community
Jennifer Coker, PhD, MPH

ORAL TALK 13
Comparing SCI Data from Three SCI Registries: Results from the International Spinal Data Network (ISDN)
Vanessa Noonan, MSc, PT, PhD

CARDIOVASCULAR & 2019 ANTHONY DIMARCO FELLOWSHIP AWRARDEES: Trevor Dyson-Hudson, MD
Monday, Oct. 5, 2020 / 12:20 pm – 1:20 pm • Oral Talks 16-19

2019 Anthony DiMarco Fellowship Award Recipient
2019 Anthony DiMarco Fellowship Award Recipient: Validity of an Interview Based Examination for Spinal Cord Injury (VIBES): Sacral Sparing in the Acute Inpatient Rehabilitation Setting
Audrey Chun, MD

2019 Anthony DiMarco Fellowship Award Recipient
Chris Cherian, MD

ORAL TALK 16
Noninvasive Chronic Spinal Stimulation as a Multi-session Therapy to Improve Cardiovascular Function After Spinal Cord Injury
Kiran Pawar, PhD

ORAL TALK 17
High-level experimental spinal cord injury impairs the cardiac inotropic response to baroreceptor unloading
Christopher West, PhD

ORAL TALK 18
Heart rate changes associated with spontaneous episodes of autonomic dysreflexia
Belinda Yee, BSc

ORAL TALK 19
Diverse Cognitive Impairment After Spinal Cord Injury is Associated with Symptoms of Aberrant Cardiovascular Changes
Tom Nightingale, PhD
**GENERAL SESSIONS**

**UPPER EXTREMITY FUNCTION:** Jennifer Coker, PhD, MPH  
Monday, Oct. 5, 2020 / 2:20 pm – 2:50 pm • Oral Talks 20-22

**ORAL TALK 20**  
The graded redefined assessment of strength sensibility and prehension version 2 (GV2): Psychometric properties  
Sukhvinder Kalsi-Ryan, PhD

**ORAL TALK 21**  
Content-Dependent Modulation of Trunk Muscle Activity Improves Manual Wheelchair Propulsion Efficiency  
Stephanie Bailey

**SECONDARY CONDITIONS:** Maureen Miner, MD  
Monday, Oct. 5, 2020 / 6:05 pm – 7:05 pm • Oral Talks 26-31

**ORAL TALK 26**  
A case comparison of endogenous fat metabolism during a prandial challenge  
David McMillan, MS

**ORAL TALK 27**  
Increased levels of matrix metalloproteinase-8 & 9 against TIMP-1 predicts poor healing of pressure injury in people with spinal cord injury  
Rajeshwar Srivastava, MS

**MIXED TOPICS:** Meegan Van Straaten, PT  
Monday, Oct. 5, 2020 / 2:20 pm – 2:50 pm • Oral Talks 24, 25 and 34

**ORAL TALK 24**  
Time needed to perform intermittent catheterization: A randomized controlled cross-over study using hydrophilic and non-hydrophilic catheters in adults with spinal cord injury  
Karthik Gopalakrishnan

**ORAL TALK 25**  
Individuals with Spinal Cord Injuries Who Use a Manual Wheelchair Spend More Time in Humeral Elevation Angles Associated with Supraspinatus Tendon Compression than Able-Bodied Controls  
Brianna Goodwin

**ORAL TALK 28**  
A qualitative study of negative health spirals among aging civilians and veterans spinal cord injury  
James Krause, PhD

**ORAL TALK 29**  
Risk Factors for Heterotopic Ossification Development after Spinal Cord Injury: A Systematic Review and Meta-Analysis  
Yagiz Yolcu, MD

**ORAL TALK 30**  
Electrically Induced Interval Cycling and Nutritional Counseling Produces Healthy Body Composition Changes In Individuals with Spinal Cord Injury  
David Dolbow

**ORAL TALK 31**  
Behavioral Factors and Unintentional Injuries after Spinal Cord Injury  
Yue Cao, PhD, MSPH

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**THANK YOU TO OUR 2020 PARTNERS!**

[List of Partner Logos]

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2020 ANNUAL SCIENTIFIC MEETING OCTOBER 4&5
THIS IS LIVING WITH A SPINAL CORD INJURY.

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

Southern California Spinal Cord Injury Model System

RANCHO LOS AMIGOS
NATIONAL REHABILITATION CENTER

www.ranchoresearch.org/spinal-cord-injury
A standing ovation, Dr. Cardenas.

In honor of you and all those you’ve helped get back on their feet.

Diana Cardenas, MD, MHP

Congratulations to our distinguished colleague on your ASIA Lifetime Achievement Award. It is well deserved.

JacksonRehabCare.org
At MedStar National Rehabilitation Hospital we focus on:

Rehabilitation: Individualized treatment using cutting edge technology
Research: National leaders in bladder dysfunction and urinary symptoms research
Health and wellness: Enhancing a healthy and fulfilling lifestyle

To learn more about MedStar National Rehabilitation Hospital visit: https://www.medstarhealth.org/ads/mnrh-2020-updates/
Mitsubishi Tanabe Pharma is built on a legacy of global innovation to meet unmet medical needs and help people enjoy healthier, more comfortable lives.