ANNUAL SCIENTIFIC MEETING
OCT 4 & 5 · 2020

The meeting will go on...
ALL ONLINE!
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>
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<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**  
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**  
The hand and upper extremity in spinal cord injury – the full spectrum of management  
**Moderator:** Allan Peljovich, MD  
*Click here for Abstract* | **General Session:**  
Acute Care  
O-7, O-8, O-9, O-10, O-11, O-32  
(See page 7 for Abstracts) |
| 1:00 – 1:05 pm | Passing Period | | |
| 1:05 – 2:00 pm | **AWARD ELIGIBLE ORAL PRESENTATIONS**  
**Moderator:** Mark Nash  
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**  
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**  
*Click here for Abstracts* |
# Presidential Reception

*Hosted by Andrei Krassioukov, MD, PhD, FRCPC*
## MONDAY, OCTOBER 5TH

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<tr>
<td>10:00 – 10:30 am</td>
<td>Virtual Coffee with ASIA President Andrei Krassioukov, MD, PhD, FRCPC</td>
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<td>10:30 – 10:40 am</td>
<td>Passing Period</td>
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| 10:40 – 11:40 am | **COURSE 9**  
Breathing after Spinal Cord Injury: Plasticity and Therapeutic Advances  
**Moderator:** Michael Lane, PhD  
[Click here for Abstract](#) | **COURSE 10**  
Transitions of Care: Why They Matter for People with SCI, Clinicians, and Researchers  
**Moderator:** Chloe Slocum, MD  
[Click here for Abstract](#) | **General Session:**  
The Official Positions of the International Society for Cardiovascular & DiMarco Awardees  
Sara Kate Frye, MS, OTR/L ATP  
O-12, O-13, O-14, O-15  
(See page 7 for Abstracts) |
| 11:40 am – 12:10 pm | Sponsor Event | | |
| 12:10 – 12:20 pm | Passing Period | | |
| 12:20 – 1:20 pm | **COURSE 11**  
The continuum between swallow and dysphagia is not simple following neural injury  
**Moderator:** Teresa Pitts  
[Click here for Abstract](#) | **COURSE 12**  
**Moderator:** Leslie Morse, DO  
[Click here for Abstract](#) | **General Session:**  
Upper Extremity Function  
O-20, O-21, O-22  
(See page 8 for abstracts)  
**General Session:**  
Mixed Topics  
O-23, O-24, O-25  
(See page 8 for Abstracts)  
[scitrialsfinder.net](http://scitrialsfinder.net)  
Updates |
| 1:20 – 2:20 pm | Lunch Break | | |
| 2:20 – 2:50 pm | **General Session:**  
Upper Extremity Function  
O-20, O-21, O-22  
(See page 8 for abstracts) | **General Session:**  
Mixed Topics  
O-23, O-24, O-25  
(See page 8 for Abstracts) | |
| 2:50 – 3:00 pm | Passing period | | |
| 3:00 – 4:00 pm | FASIA & Awards Session | | |
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| 4:00 – 4:45 pm | ![Keynote Speaker](image) | **Keynote Speaker** – Dr. Federico Montero,  
*Presented by Camilo Castillo, MD*  
Federico Montero, MD, Deputy Director at the National Rehabilitation Centre of Costa Rica. Dr. Montero has worked for the World Health Organization as the Coordinator of the Disability and Rehabilitation Team, and is an expert on advocacy, access, and rights for persons with disabilities. |  |
| 4:45 – 4:55 pm | Passing Period |  |  |
| 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: Meegan Van Straaten, PT
Sunday, Oct. 4, 2020 / 11:35 am – 12:35 pm • Oral Talks 7-11

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

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

ORAL TALK 11
Acute Care Protocol to Assess Bladder Voiding in Traumatic Spinal Cord Injury Patients
Victor Lim

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, MPH

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

ORAL TALK 14
Development of Crosswalks to Aggregate International Spinal Cord Injury Functional Data
Linda Jones, PhD

ORAL TALK 15
Development of the PedsQL SCI Module
Miriam Huang, MD, PhD

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

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

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

2019 Anthony DiMarco Fellowship Award Recipient
Chris Cherian, MD
GENERAL SESSIONS

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

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

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

ORAL TALK 22
Lower Motor Neuron Damage in Wrist Extensor after Tetraplegia
Anne Bryden, MA, OTR/L

MIXED TOPICS: Meegan Van Straaten, PT
Monday, Oct. 5, 2020 / 2:20 pm–2:50 pm • Oral Talks 23-25

ORAL TALK 23
Surviving the Effects of Radiation: A Look at Chronic Cancer Survivorship with Incomplete Spinal Cord Injuries due to Radiation Fibrosis Syndrome
Mari Ferry

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

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

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
THIS IS LIVING WITH A SPINAL CORD INJURY.

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

International Center for Spinal Cord Injury
at Kennedy Krieger Institute
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
MedStar Health

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.