Global Neuro Course: State of the Art on Clinical Management of Brain and Spine Trauma

August 11, 2018, Toronto, Canada
It is our pleasure to welcome you to the Neuro Course as a pre-course for the 3rd Joint Symposium of the International and National Neurotrauma Societies and AANS/CNS Section on Neurotrauma and Critical Care. Such a great learning opportunity would not be possible without the generous support provided by Global Neuro, NREF, and AOSpine. These organizations are truly at the forefront of advancing neuro care worldwide. By providing neuro care specialists with excellent opportunities to share knowledge, network and innovate; courses such as these are invaluable for neurosurgeons and members of associated disciplines. We have done our best to create a course that covers a range of topics relevant to TBI and SCI care. The effects of these debilitating conditions on patient quality of life are well known, and this course serves as a means to engage you, the attendee, to enhance neurocritical knowledge and ensure patients are receiving the best care possible. We look forward to a day of learning, networking and great discussions. From both of us, welcome to the Neuro Course and we hope it is a great experience.

Dr. Michael Fehlings MD PhD FRCSC FACS
Toronto Western Hospital
University of Toronto
Toronto, Canada

Dr. Geoffrey Manley MD PhD
San Francisco General Hospital
University of California, San Francisco
San Francisco, United States

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Global Neuro

Global Neuro is excited to welcome you to the Neuro Course in beautiful Toronto. At the start of 2018, AONeuro transitioned to become an independent entity named Global Neuro. This strategic move ultimately allows us to broaden our geographic reach to neuro professionals and to form new partnerships. These changes provide a clear path forward to improve the educational and practical experiences in patient care and outcomes through rigorously prepared and evaluated curricula. At Global Neuro, we believe medicine, neurological care, and recovery is too complex to depend upon a single discipline. As such, collaboration is required to make the greatest impact on the progress and outcomes of our patients. Global Neuro strives to build collaborations with regional, national, and international societies and organizations to deliver symposia and courses at congresses and annual meetings. These partnerships enable us to provide the best formats possible. We hope this program meets your expectations as it is based on continuous development, study, evaluation, and discussion. Please join our network of professionals as we work together to improve the results in neuro care and rehabilitation for all our patients.

Warm Regards,

Paul N. Manson MD
Chairman of Global Neuro
Neurosurgery Research and Education Foundation

The Neurosurgery Research and Education Foundation (NREF) is pleased to support the Neuro Course at this year’s 3rd Joint Symposium of the International and National Neurotrauma Societies and AANS/CNS Section on Neurotrauma and Critical Care. Core to our values is the relentless quest to enhance the lives of patients by advancing neurological care. We are dedicated to educating neurosurgeons of all career stages and spreading best practices that are improving the lives of our patients. This course is an excellent opportunity to bring together neurosurgeons to discuss the current state of neurosurgery regarding TBI and SCI, while simultaneously looking to the future of traumatic neurosurgical care. This course provides a unique blend of fundamental research in the basic and clinical sciences pertinent to neurosurgery, as well as case presentations and expert opinions. We hope this course is informative and provides neurosurgeons with a platform for open learning and discussions that will contribute to the growth of our discipline, and ultimately result in improvements to patient care.

AOSpine

Welcome to the Neuro Course put on in conjunction with the 3rd Joint Symposium of the International and National Neurotrauma Societies and AANS/CNS Section on Neurotrauma and Critical Care. AOSpine strives to lead the global academic community in innovative education and research opportunities in spine care, inspiring lifelong learning and improving patients’ lives. The curriculum of this course supports our principles of research, education and community development. We are proud to have supported many of the speakers presenting during the course, and it is important to see this research shared with our international spine community. The presentation of our funded work during this course highlights our commitment to bettering spine care worldwide. The course is designed to inform attendees about recent advancements in spinal cord injury care and management and covers a wide range of related topics. Further, the placement of the Neuro Course before the Neurotrauma2018 Meeting commences provides course attendees with the opportunity to continue productive discussions throughout the week. We are excited to be a part of this course, and we hope everyone in attendance benefits from this great opportunity.

Course Description

This course covers the current best strategies and considerations for managing brain and spine trauma patients and is based on competencies defined in Global Neuro and AOSpine curriculums. The content is delivered using multiple methods. Comprehensive lectures concentrate on the understanding of core material. Interactive case presentations further deepen this knowledge and enrich the discussion in trauma management. Case-based discussions link the lecture material and practical skills with the problems encountered in clinical practice.

Goal of this Course

The State of the Art on the Clinical Management of Brain and Spine Trauma course covers the theoretical basis and principles for managing traumatic brain and spine injuries and making proper decisions in the complicated cases.

Target Participants

This course has been developed for:
- Neurosurgeons interested in trauma
- Spine surgeons
- Critical care physicians
- Neurosurgery and critical care nurses
- Mid-Level practitioners
- Neurosurgery residents and fellows
- Translational researchers interested in learning about clinical aspects of neurotrauma
Learning Objectives
Upon completion of the program, participants should be able to:
• Review basic science and clinical translational advances in traumatic brain injury, cranial trauma, and spinal cord injury
• Apply evidence-based decision making to the management of patients with TBI and SCI
• Select the best operative and non-operative treatment for each patient
• Discuss advances in the critical and neurocritical care of TBI in adults and children
• Assess and manage patients with spinal trauma and spinal cord injury based on current guidelines

Event Organization
NeuroTrauma 2018
The 3rd Joint Symposium of the International and National Neurotrauma Societies and AANS/CNS Section on Neurotrauma and Critical Care in Toronto, Canada will be a wonderful occasion of sharing science, preclinical and clinical lessons, and visions for the future of neurotrauma research and care. This symposium has served as the premier forum for the exchange of ideas and information related to traumatic brain injury (TBI) and spinal cord injury (SCI), with a strong focus of the meeting to integrate clinical, translational, and basic science neurotrauma-related information. The format of the symposium will consist of informative discovery, translational, and clinical sessions and workshops, as well as programs for students and early career investigators. Plenary sessions, workshops, and poster sessions are being planned to focus on topics of current research and practice issues. A public lecture, patient perspective presentations, and networking opportunities will round out the program.

The meeting will be co-hosted by the International & National Neurotrauma Society and the AANS/CNS Joint Section on Neurotrauma and Critical Care. This combination of expertise allows for presentations that integrate state-of-the-art clinical, translational and basic science information on the consequences of damage to the nervous system. This is an exciting time in neurotrauma research and care and we hope to see you in Toronto for the Neurotrauma 2018 Symposium.

Event Information
CME Accreditation
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of VCU Health Continuing Medical Education and International Conference Services, Ltd.

VCU Health Continuing Medical Education is accredited by the ACCME to provide continuing medical education for physicians. VCU Health Continuing Medical Education designates this live activity for a maximum of 8.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Course certificate
The course certificates can only be provided if the participant attends the entire event (100%) and will be available at the end of the event.

Evaluation guidelines
All Global Neuro events apply the same evaluation process, either online (pre- and post-event evaluation) or/and on-site by audience response system (ARS) or paper and pencil questionnaires. This helps Global Neuro to ensure that we continue to meet your training needs.
Global Neuro
For more information on global neuro please visit www.globalneuro.org.

Intellectual property
Event materials, presentations, and case studies are the intellectual property of the event faculty. All rights are reserved. Check hazards and legal restrictions on www.aofoundation.org/legal.

Recording, photographing, or copying of lectures, practical exercises, case discussions, or any course materials is strictly forbidden. Participants violating intellectual property will be dismissed.

The Global Neuro Foundation reserves the right to film, photograph, and audio record during their events. Participants must understand that in this context they may appear in these recorded materials. The Global Neuro Foundation assumes participants agree that these recorded materials may be used for Global Neuro marketing and other purposes and made available to the public.

Security
Security checks may be conducted at the entrance of the building. Wearing of a name tag is compulsory during lectures, practical exercises, and group discussions.

No insurance
The event organization does not take out insurance to cover any individual against accidents, theft or other risks.

Mobile phone use
Use of mobile phones is not allowed in the lecture halls and in other rooms during educational activities. Please be considerate of others by turning off your mobile phone.

Dress code
Casual

Event Venue
The Westin Harbour Castle
1 Harbour Square, Toronto, ON, M5J 1A6, Canada
www.westinharbourcastletoronto.com

Invited Faculty

International Faculty
Andrew Maas  Antwerp University Hospital  Belgium, Antwerp
Anthony Figaji  University of Cape Town  South Africa, Cape Town
Peter Hutchinson  University of Cambridge  U.K., Cambridge
Mark Kotter  University of Cambridge  U.K., Cambridge

Regional Faculty
Bizhan Aarabi  University of Maryland  USA, Baltimore
Dalton Dietrich  University of Miami  USA, Miami
James S Harrop  Jefferson Hospital for Neuroscience  USA, Philadelphia
Gregory Hawrylyk  University of Utah  USA, Salt Lake City
Shekar Kurpad  Medical College of Wisconsin  USA, Milwaukee
Paul Manson  John Hopkins School of Medicine  USA, Baltimore
David Okonkwo  University of Pittsburgh  USA, Pittsburgh
John Povlishock  Virginia Commonwealth University  USA, Richmond
Shelly Timmons  Penn State Hershey Neurosurgery  USA, Hershey

National Faculty
Andrew Baker  St. Michael's Hospital  Canada, Toronto
Jamie Hutchinson  University of Toronto  Canada, Toronto
Brian Kwon  Vancouver Spine Surgery Institute  Canada, Vancouver
Eve Tsai  Ottawa Hospital Research Institute  Canada, Ottawa
Jefferson Wilson  University of Toronto  Canada, Toronto
# Saturday, August 11, 2018 Program

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<thead>
<tr>
<th>TIME</th>
<th>AGENDA ITEM</th>
<th>FACULTY</th>
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<tbody>
<tr>
<td>07:00–07:45</td>
<td>Registration and Coffee</td>
<td>All</td>
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<tr>
<td>07:45–08:00</td>
<td>Welcome Remarks and Course Introduction</td>
<td>Michael Fehlings, Geoff Manley</td>
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<tr>
<td>08:00–08:15</td>
<td>Welcome from: Global Neuro, AONA, AOSpine, NREF</td>
<td>Paul Manson, James Harrop, Shelly Timmons</td>
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<tr>
<td>08:15-12:00</td>
<td>Traumatic Brain Injury and Cranial Trauma</td>
<td>Moderator: Geoff Manley</td>
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<tr>
<td>08:15–08:45</td>
<td>Basic Science of Traumatic Brain Injury: State of the Art</td>
<td>John Povlishock</td>
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<tr>
<td>08:45–09:15</td>
<td>Clinical Translational Advances in Traumatic Brain Injury</td>
<td>Geoff Manley</td>
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<tr>
<td>09:15–09:45</td>
<td>Advanced techniques in cranial reconstruction</td>
<td>Paul Manson</td>
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<td>09:45–10:15</td>
<td>Decompressive Craniectomy</td>
<td>Peter Hutchinson</td>
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<td>10:15–10:30</td>
<td>Coffee and Networking break</td>
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<tr>
<td>10:30–11:00</td>
<td>Critical Care of Traumatic Brain Injury in Adults and Children</td>
<td>Andrew Baker, Jamie Hutchinson</td>
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<td>11:00–11:30</td>
<td>Management of traumatic brain injury in children</td>
<td>Anthony Figaji</td>
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<td>11:30–12:30</td>
<td>Case-based Panel Discussion with a focus on Neurocritical care decision management</td>
<td>Moderator: Shelly Timmons</td>
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<td>12:30–12:45</td>
<td>Networking break and pick up of boxed lunch</td>
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<tr>
<td>12:45–13:30</td>
<td>Luncheon Seminars</td>
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<td></td>
<td>An international perspective on traumatic brain injury (15min)</td>
<td>Andrew Maas</td>
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<td>Biomarkers for Spinal Cord Injury (15min)</td>
<td>Brian Kwon</td>
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<tr>
<td>Module 2</td>
<td>Spine Trauma and Spinal cord injury</td>
<td>Moderator: Michael Fehlings</td>
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<td>13:30–14:00</td>
<td>Basic Science of SCI: State of the Art</td>
<td>Dalton Dietrich</td>
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<tr>
<td>14:00–14:30</td>
<td>Clinical Translational advances in Spinal Cord Injury</td>
<td>Michael Fehlings</td>
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<tr>
<td>14:30–15:00</td>
<td>Assessment &amp; Management of Spinal Cord Injury</td>
<td>James Harrop</td>
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<tr>
<td>15:00–15:30</td>
<td>Critical Management of Spinal Cord Injury (including review of the AO Spine Guidelines)</td>
<td>Greg Hawryluk</td>
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<td>10:15–10:30</td>
<td>Coffee and Networking break</td>
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<tr>
<td>15:45–16:30</td>
<td>Role and Timing of Surgery in Spinal Cord Injury</td>
<td>Moderator: Michael Fehlings</td>
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<td>Faculty Panel: Bizhan Aarabi, James Harrop, Eve Tsai, Jefferson Wilson, Brain Kwon, Mark Kotter, Shekar Kurpad</td>
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<td>16:30–17:30</td>
<td>Management of complex thoracolumbar spine trauma</td>
<td>Moderator: James Harrop</td>
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<td>Faculty Panel: Jefferson Wilson, Bizhan Aarabi, Brain Kwon, Mark Kotter, David Okonkwo, Eve Tsai</td>
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<td>17:30–19:00</td>
<td>Networking Cocktail Reception</td>
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