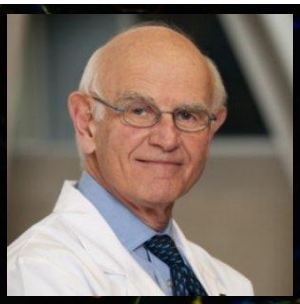
UHN Krembil Brain Institute

Surgery UNIVERSITY OF TORONTO Spine Program

THE 22nd ANNUAL TATOR-TURNBULL SPINAL CORD INJURY SYMPOSIUM



Dr. Charles Tator

FRIDAY, NOVEMBER 10th

BMO CONFERENCE & EDUCATION CENTRE
Toronto Western Hospital
60 Leonard Ave
12:00 – 5:00 pm (doors open at 11:45 am)

Barbara Turnbull

Building Bridges: Basic Science and Translational Targets for Spinal Cord Injury

AILEEN ANDERSON, PhD
PROFESSOR, UNIVERSITY OF CALIFORNIA IRVINE
KEYNOTE SPEAKER

Dr. Michael Fehlings
Organiser

SPINAL CORD INJURY ONTARIO
LÉSIONS MÉDULLAIRES ONTARIO

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Collaborative Program In Neuroscience (CPIN)
UNIVERSITY OF TORONTO

Fondation Brain Canada Foundation

Barbara Turnbull Foundation
for spinal cord research
Fondation Barbara Turnbull
pour la recherche sur la moelle épinière

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AGENDA

REGISTRATION

11.45 Doors Open & Registration

WELCOME REMARKS

12.00 Michael Fehlings & Albert Yee – Co-Chairs of the UofT Spine Program
Tom Forbes – Surgeon-in-Chief, UHN
Gelareh Zadeh – Chair of Neurosurgery, UofT
Brad Wouters – Executive VP of Science and Research, UHN
Jaideep Bains – Director of the Krembil Research Institute
Zhong-Ping Feng – Director of the Collaborative Program in Neuroscience, UofT
Stuart Howe – CEO, Spinal Cord Injury Ontario

SPEAKER SESSION I

12.20 Time is Spine: A Translational Update on the Management of Spinal Cord Injury
Michael Fehlings, MD, PhD, FRCSC, FACS

12.35 BiMonoclonal antibodies targeting inhibitory RGMa to improve spinal cord and bladder functional repair
Andrea Mothe, PhD

12.50 Bone Health Clinical Practice Guidelines: A multimodal approach to integrated knowledge translation to support health system change
Cathy Craven, BA, MD, FRCPC, MSc

13.05 Discussion

SPEAKER SESSION II

13.15 Functional Electrical Stimulation therapy in the rehabilitation of C5 palsy after surgical decompression for degenerative cervical myelopathy
Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC

13.30 Emerging evidence on 'central cord syndrome': A framework for conceptualization and treatment
Jetan Badhiwala, MD, PhD

13.45 Advanced Neural Stem Cell Strategies for Spinal Cord Regeneration
Mohamad Khazaei, PhD

AGENDA

14.00 Mechanisms of ependymal cell activation after injury
Laureen Hachem, MD

14.15 Discussion

BREAK
14.25 Tea / Coffee

POSTER SESSION
14.35 Oral Poster Sessions (see page 13 for list of presentations)

15.05 Discussion

15.20 Turnbull-Tator Award Announcement – Brain Canada
Viviane Poupon, PhD

15.25 Oral Presentation - Winner of the Brain Canada 2022 Turnbull-Tator Award in SCI

Intracortical neuroprosthetics for the recovery of movement
Marco Bonizzato, PhD

15.40 Discussion

BREAK
15.50 Tea / Coffee

16.00 TATOR-TURNBULL SYMPOSIUM KEYNOTE ADDRESS / CPIN DISTINGUISHED LECTURE

Building Bridges: Basic Science and Translational Targets for Spinal Cord Injury
Aileen Anderson, PhD

16.45 Discussion

16.55 TRIBUTE TO BARBARA TURNBULL
Charles Tator, OC, MD, PhD, FRCSC, FACS
Barbara Turnbull Family Members

17.05 Closing Remarks
Michael Fehlings

KEYNOTE SPEAKER

Each year a distinguished individual is invited to give the Tator-Turnbull keynote address. The speaker is a scientist or advocate in the spinal cord injury field that has made a significant contribution to addressing challenges for those living with this injury. This individual demonstrates leadership in the field and a commitment to finding a cure; qualities synonymous with Charles Tator and Barbara Turnbull.

Dr. Aileen Anderson, PhD

Professor, Physical Medicine, Anatomy & Neurobiology
University of California Irvine

Dr. Aileen Anderson received her B.S. in Bioengineering from the University of Illinois Urbana, and Ph.D. in Neurobiology from the University of California Irvine (UCI). After post-doctoral work at Harvard, she returned to UCI as a faculty member. She is currently a Professor in the departments of Physical Medicine, Neurological Surgery, and Anatomy & Neurobiology, and has served as Director of the UCI Sue & Bill Gross Stem Cell Research Center since 2017. Her laboratory focuses on neural stem cell (NSC) populations and spinal cord injury mechanisms, investigating intrinsic and extrinsic factors defining the migration and differentiation potential of NSC, non-traditional roles for the innate inflammatory system in the pathophysiology of spinal cord injury and control of NSC fate and migration, and potential for implanted biomaterial scaffolds to provide an environment supporting robust axonal regeneration.

Past Keynote Speakers

2022	Dr. Michael Sofroniew, University of California Los Angeles
2021	Dr. Gregoire Courtine & Dr. Jocelyne Bloch, University Hospital Lausanne
2020	Dr. Wolfram Tetzlaff, University of British Columbia
2019	Dr. Brian Kwon, University of British Columbia
2018	Dr. Mark Tuszynski, The University of California - San Diego
2017	Dr. Dalton Dietrich, The Miami Project to Cure Paralysis, University of Miami
2016	Dr. Claes Hultling, Karolinska Institute, Sweden
2015	Dr. Jan Schwab, Ohio State Wexner Medical Center
2014	Dr. Ole Kiehn, Karolinska Institute, Sweden
2013	Drs. Derek van der Kooy, Cindi Morshead, and Andras Nagy, University of Toronto
2012	Dr. Susan Harkema, University of Louisville
2011	Dr. Armin Curt, University of Zurich
2010	Dr. V. Reggie Edgerton, Brain Research Institute, UCLA
2009	Dr. James Fawcett, Cambridge University Centre for Brain Repair, United Kingdom
2008	Dr. Jerry Silver, Case Western Reserve University
2007	Dr. Serge Rossignol, University of Montreal
2006	Dr. Arthur Prochazka, University of Alberta
2005	Dr. John Steeves, International Collaboration On Repair Discoveries (ICORD), British Columbia
2004	Prof. Eva Sykova, Institute of Experimental Medicine, Czech Republic
2003	Dr. Lars Olson, Karolinska Institute, Sweden
2002	Mr. Rick Hansen, Rick Hansen Institute, British Columbia

SPEAKER BIOGRAPHIES

Jetan Badhiwala received his MD from McMaster University and thereafter entered the Neurosurgery Residency Training Program at the University of Toronto. During residency, Jetan completed a PhD in clinical outcomes research in spinal disorders and neurotrauma through the Surgeon Scientist Training Program under the mentorship of Dr. Michael G. Fehlings. After residency, Jetan completed a fellowship in complex spine surgery at the Cleveland Clinic. Jetan has an interest in harnessing big data to address clinical knowledge gaps and the application of artificial intelligence to healthcare data for 'personalized' or 'precision' medicine. Jetan has published over 120 peer-reviewed papers, 50 conference abstracts, and 15 book chapters to date. Jetan has been the recipient of a number of honors and awards, including the CIHR Fellowship, the AANS/CNS Spine Section Research Grant, First Place Resident/Fellow Paper (CSRS), and the Stewart B. Dunsker Award (AANS/CNS).

Jaideep Bains is the Director of the Krembil Research Institute. He studies how stress affects brain function and connections. His team is specifically interested in studying the effects of stress at the level of the connection between nerve cells, the synapse. His research has recently provided insight into how stress is remembered at the molecular level in the brain, and how hormones interact to feedback inhibit the response to stress through direct action on the brain. Dr. Bains' team studies techniques ranging from behavioral studies to the study of individual molecules at the level of the synapse, including studies of neural pathways using electrical recordings of activity and the latest optogenetics-based approaches.

Marco Bonizzato is a new tenure-track Assistant Professor in Electrical Engineering, Polytechnique Montréal, and Adjunct Professor in Neurosciences, Université de Montréal. His academic path started with a PhD at École Polytechnique Fédérale de Lausanne, Switzerland, working with Silvestro Micera and Grégoire Courtine. Following this, he moved to Canada and pursued a postdoctoral fellowship at Université de Montréal, working with Professors Marina Martinez and Numa Dancause. With a double background in automation engineering and systems neuroscience, his research career has been especially focused on the development of medical technology for spinal cord injury (SCI). His primary areas of research include neuroprosthetics, brain-machine interfaces, and autonomous optimization for precision neuromodulation.

SPEAKER BIOGRAPHIES

Cathy Craven is the Cope Chair in Spinal Cord Injury (SCI) Rehabilitation Health Systems Innovation, Medical Director of the Spinal Cord Rehabilitation Program and Senior Scientist at KITE Research Institute within University Health Network. She is Professor in the Department of Medicine at the Temerty Faculty of Medicine, University of Toronto, Dr. Craven is a Fellow of the Canadian Academy of Health Sciences and the American Spinal Injury Association. She has clinical and research expertise in health services and medical rehabilitation to avoid fractures, pressure injury, diabetes and heart disease. Dr. Craven is Chair of the Canadian SCI - Rehabilitation Association (www.cscira.org), and Quality Lead for the Ontario SCI Implementation and Evaluation Quality Care Consortium (www.sciconsortium.ca). She has published over 250 articles on related topics and obtained 25M CAD in research funding as a primary investigator (ORCID 0000-0001-8234-6803). www.cravenlab.ca; #@drcathycraven.

Michael G. Fehlings received his MD degree from the University of Toronto (UofT) in 1983, and completed his general surgical training at Queen's University. Upon returning to UofT, he completed his neurosurgical training as well as PhD, and received his Fellowship of the Royal College of Surgeons of Canada. He is currently Professor and Vice Chair of Research in the Department of Surgery at UofT, a McLaughlin Scholar in Molecular Medicine, Senior Scientist at the McEwen Centre for Regenerative Medicine, Co-Director of the UofT Spine Program, Neurosurgeon at Toronto Western Hospital and holds the Campeau/Tator Chair in Brain and Spinal Cord Research. Dr. Fehlings combines an active clinical practice in complex spinal surgery with a translationally oriented research program focused on discovering novel treatments for the injured spinal cord.

Dr. Fehlings has received numerous awards including the Gold Medal in Surgery from the Royal College of Physicians and Surgeons, the Olivecrona Award from the Karolinksa Institute, and the Golden Axon Leadership Award. In 2013, Dr. Fehlings was recognized with the Queen Elizabeth II Diamond Jubilee Medal presented to him by the Honourable Stephen Harper, and In 2014 he was elected to the Fellowship of the Royal Society of Canada and to the Canadian Academy of Health Sciences. He was awarded the Regional Mentor of the Year award in 2016 from the Royal College of Physicians and Surgeons of Canada for his significant impact on the career development of medical residents and fellows. In 2017, he was awarded the Dave Lostchuck People's Choice Award for outstanding SCI Scientist, and he was recently awarded the prestigious Ryman Prize as well as the Vilhelm Magnus Medal.

SPEAKER BIOGRAPHIES

Zhong-Ping Feng is a Professor in the Department of Physiology and the Director of the Collaborative Program in Neuroscience at the University of Toronto. She completed her MD at Zhongshan Medical College and Residency at the Peking Union Hospital in China. She received her MSc from the University of Alberta, and her PhD from the University of Calgary, where she also obtained her postdoctoral training and scientist experience with NeuroMed Inc. Professor Feng's lab investigates the biophysical and pharmacological properties of ion channels and calcium-dependent regulatory mechanisms of neurodevelopment and neural plasticity. Her lab also identifies potential drug targets for neurodevelopmental and neurological disorders. Her work has been funded by CIHR and NSERC.

Thomas Forbes is the Surgeon-in-Chief & James Wallace McCutcheon Chair in the Sprott Department of Surgery at the University Health Network, and Professor & Vice-Chair (Finance & Advancement) of the Department of Surgery, Temerty Faculty of Medicine, University of Toronto. He is also the Editor-in-Chief of the Journal of Vascular Surgery, has published over 300 peer-reviewed papers, editorials and book chapters and given over 100 invited lectures or guest professorships. He is a Distinguished Fellow of the Society for Vascular Surgery and a Fellow of the American Surgical Association. He is Past-President of the Canadian Society for Vascular Surgery, a former Residency Program Director and former vice-Chair of the Vascular Surgery Specialty Committee of the Royal College of Physicians and Surgeons of Canada. He obtained his medical degree in 1990 from the University of Toronto and completed his general surgery and vascular surgery training at Western University.

Julio Furlan is a staff neurologist and a Clinician Investigator in the Division of Physical Medicine and Rehabilitation and the SCI Rehabilitation Program at the Lyndhurst Centre, Toronto Rehabilitation Institute, University Health Network, and an Associate Professor in the Department of Medicine, Division of Physical Medicine and Rehabilitation, University of Toronto. He is a trained head and neck surgeon from Brazil, who holds a MBA degree in Health Administration, an MSc degree in Clinical Epidemiology, and a PhD degree in Neuroanatomy. In the past, Dr. Furlan has worked as an Associate Research Scientist in the Department of Genetics and Development, Toronto Western Research Institute, University Health Network from 2007 to 2012. Dr. Furlan has also been an Adiunct Scientist at Toronto Rehabilitation Institute, University Health Network from 2009-2016, inclusive. He recently completed five years of residency training in Adult Neurology at University of Toronto in June 2014. Most recently, he completed a two-year clinical fellowship in Neurorehabilitation and Neural Repair at Toronto Rehabilitation Institute and the University of Toronto in June 2016. Dr Furlan´s research has been focused on outcome measures (including clinical assessments, neuroimaging analysis, and neurophysiological assessments) and predictors of outcome after traumatic and non-traumatic spinal cord injury. In addition, he has interest and expertise in neuromodulation, autonomic dysfunction after spinal cord injury and economic analyses.

SPEAKER BIOGRAPHIES

Laureen Hachem is a fourth-year neurosurgery resident at the University of Toronto. She completed her medical training at the University of Toronto, after beginning her undergraduate studies in neurosciences there, as well. Her research focuses on regenerative strategies to enhance plasticity in the injured central nervous system and specifically examining the mechanisms of endogenous neural stem/progenitor cell activation after traumatic spinal cord injury. She is conducting her PhD as part of the Surgeon Scientist Training Program under the supervision of Dr. Michael Fehlings and Dr. Charles Tator, examining glutamate-mediated signaling mechanisms in neural stem cells after spinal cord injury. Her research is supported by grants from CIHR, the Academy of Neurological Surgeons/Neurosurgery Research & Education Foundation, Vanier Canada and PSI Foundation.

Stuart Howe is the Chief Executive Officer of Spinal Cord Injury Ontario - a charitable organization that is an ongoing, life-long resource for people with spinal cord injuries, their families, friends and the professionals in their service. Stuart applies his proven track record in fostering innovation, building partnerships, growing revenues and running operations, to ensure the organization's success. Throughout his career, Stuart has continuously challenged the established norms of not-for-profit business practices, and has successfully translated innovations into commercial products. Through his work, he has built robust business partnerships. He has launched new technology companies and service businesses. In doing so, he has become skilled at securing research and development funding, implementing LEAN process improvements, and growing new, sustainable, revenue streams. Stuart has a PhD in Chemistry from the University of Essex and is a registered patent agent. He has worked for one of Canada's largest national law firms and spent 16 years in various business roles at Canada's premier children's hospital. He has consulted on innovation and business development for hospitals and community service providers, and has served as a director and officer of several for-profit and not-for-profit organizations.

Mohamad Khazaei is a Senior Scientific Associate at the Krembil Brain Institute and leads the stem cell team in Dr. Fehlings' lab. Trained in cell and molecular neurobiology, Dr. Khazaei's research focuses on neural stem cells as potential treatments for neurodegenerative disorders including spinal cord injury, multiple sclerosis, and cerebral palsy. In the field of regenerative cell therapies, Dr. Khazaei has generated several neuroglial lines using genetic and cellular engineering techniques. These lines include neural cells associated with cortical brain and spinal cord, oligodendrogenic and neurogenic stem cells, and inhibitory/excitatory neurons. These cells have potential applications in treating various neurological conditions. One of his significant findings includes the identification of a signaling pathway for GDNF related to the function of neural stem cells and Notch signaling. This research is pending publication in "Science Translational Medicine." In the last five years, Dr. Khazaei has published 10 peer-reviewed articles in reputable journals, with additional papers currently under review.

SPEAKER BIOGRAPHIES

Andrea Mothe is a neuroscientist and scientific associate at UHN in the laboratory of Dr Charles Tator at the Krembil Research Institute. She is interested in developing translational regenerative therapies for neural repair. Andrea received her PhD in developmental neurobiology from the University of Toronto investigating the expression of extracellular matrix molecules involved in brain and retinal development. She obtained postdoctoral training in spinal cord injury and received fellowships from the Canadian Institutes of Health Research and the Ontario Neurotrauma Foundation to examine neural stem cell transplantation for spinal cord injury and develop a novel minimal injury model characterizing the endogenous stem cell response. She has used various bioengineering approaches to direct neural stem cell differentiation and promote graft survival, and showed self-renewing neural stem cells exist in the adult human spinal cord. Andrea has examined pathophysiological mechanisms underlying injury, and has used small molecules, peptides, and monoclonal antibody approaches to reduce inhibition and promote regeneration after CNS injury.

Viviane Poupon is a neuroscientist and a strong advocate for open science and sex and gender-based analysis in research. Her commitment to addressing gaps in the Canadian brain research landscape, including mental health research, platform support and capacity building through early-career funding and talent retention, has been instrumental in driving Brain Canada's mission to understand the brain in health and illness and improve lives. She currently serves as the president and CEO of Brain Canada, where she has been instrumental in advancing the organization's mission to enhance our understanding of the brain and its impact on human health. Dr. Poupon's tenure as the president and CEO of Brain Canada has been marked by a focus on fostering partnerships and collaborations between different research silos. Through her leadership, Brain Canada is making significant strides in advancing our knowledge of the brain. With more than 100 partners, and $300 million invested in brain research in the past 25 years, Brain Canada is the leading brain research funder and convenor in Canada. Dr. Poupon's professional background includes various leadership roles in scientific development and partnerships. As the Director of Scientific Development and Partnerships at the Neuro - Montreal Neurological Institute and Hospital, McGill University, she led major research initiatives and alliances, both domestically and internationally. She played a key role in transforming the Neuro into an Open Science Institute and served as the Chief Operating Officer of the Tanenbaum Open Science Institute.

SPEAKER BIOGRAPHIES

Charles Tator graduated from the Faculty of Medicine at The University of Toronto in 1961. He performed graduate studies in Neuropathology from 1961 – 1965 receiving his Masters and Ph.D. Degrees from the University of Toronto before entering the Neurosurgery Training program in 1965. He became a Fellow of the Royal College of Physicians and Surgeons of Canada in 1969. Dr. Tator joined the Neurosurgical Staff at Sunnybrook Medical Centre in 1969. Having served as Neurosurgeon-in-Chief at Sunnybrook from 1974-1984, Dr. Tator moved to The Toronto Western Hospital where he became Neurosurgeon-in-Chief from 1985-1988. He was appointed Chairman of the Division of Neurosurgery at the University of Toronto for a 10-year term beginning 1989. He is currently Professor in the Department of Surgery at The University of Toronto. His main clinical interests are in the neurosurgery of spinal diseases and acoustic neuromas. His research laboratory is dedicated to the study of acute spinal injury models.

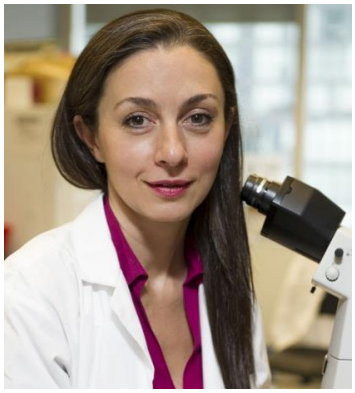
Brad Wouters is currently Executive Vice President of Science and Research at the University Health Network. Prior to this appointment, Dr. Wouters served as Director of Research (Interim) at the Princess Margaret Cancer Centre from 2014-2016. Dr. Wouters is also a Senior Scientist and Director of the Hypoxia and Microenvironment Program at the Princess Margaret Cancer Centre in Toronto and Professor in the Departments of Radiation Oncology and Medical Biophysics at the University of Toronto. He is cross-appointed as an Associate Chair of Graduate Studies and Director of Radiation Biology within the Department of Radiation Oncology as well as Senior Investigator in the Selective Therapy Program at the Ontario Institute for Cancer Research.

Dr. Wouters is an internationally recognized leader in the field of molecular radiation oncology with a primary interest in understanding the cellular and molecular responses to hypoxia and their influence on the biological behavior of tumours. He has published more than 175 peer-reviewed manuscripts, serves on the editorial boards of several journals, and has been an active faculty member of local, national and international teaching courses. Dr. Wouters is the recipient of several prestigious awards and honors, including the ESTRO Klaas Breur Award – Annual Gold Medal Award Lecture for 2011, the Michael Fry Radiation Research Award in 2009 from the Radiation Research Society and is a holder of a Senior Investigator Award with the Ontario Institute for Cancer Research.

SPEAKER BIOGRAPHIES

Albert Yee is the Holland Bone and Joint Program Chief and the Head of the Division of Orthopaedic Surgery at Sunnybrook Health Sciences Centre, where he holds the Marvin Tile Chair in Orthopaedic Surgery. Dr. Yee is an Orthopaedic Spine Surgeon at Sunnybrook Health Sciences Centre, an Associate Scientist (Physical Sciences Platform) at Sunnybrook Research Institute and a Consultant in Surgical Oncology, Bone Metastasis Clinic, Odette Cancer Centre. He is a Full Professor at the University of Toronto in the Institute of Medical Sciences with a cross appointment in the Institute of Biomaterials and Biomedical Engineering. He is the Vice Chair of Research in the Division of Orthopaedic Surgery and Co-Director of the University of Toronto's Department of Surgery Spine Program.

Dr. Yee is the Past President of the Canadian Orthopaedic Research Society, President-Elect of the Canadian Spine Society and Co-Chair of Bone & Joint Canada. He is the Canadian Lead for the Young Investigators Initiative (YII) of Bone & Joint Canada, and the US Bone & Joint Initiative, a grant mentorship and career development program. Dr. Yee has over 100 peer reviewed publications and has received academic honours including the American British Canadian (ABC) International Travelling Fellowship (American Orthopaedic Association / Canadian Orthopaedic Association, 2013), the Charles H. Tator Surgeon-Scientist Mentoring Award (2012), and the Canadian Orthopaedic Foundation J. Edouard Samson Award (2011). Dr. Yee's laboratory focuses on translational orthopaedic research utilizing pre-clinical surgical models to evaluate novel minimally invasive vertebral metastatic therapies (e.g. Photodynamic Therapy, Radiofrequency Ablation). His work has led to firsts in human clinical trials and FDA approval with commercialization of new minimally invasive spine technology. He has interest in understanding mechanisms of disease in cancer invasiveness to bone with an aim towards identifying potential new promising therapeutic targets.



Gelareh Zadeh is a Professor at the Department of Surgery University of Toronto and Chair of Neurosurgery at University Health Network (UHN). She is a Neurosurgeon-Scientist at Toronto Western Hospital, UHN and was most recently appointed as the Wilkins Family Chair in Brain Tumor Research. Her clinical practice focuses on Skull Base Neuro-oncology, with dedicated general brain tumour clinic and many multidisciplinary clinics that she has established and is actively involved with such as skull base, pituitary, brain metastases, gamma knife and neurofibromatosis clinic. She is actively involved with and is dedicated to the goal of advancing surgical clinical trials. Her research laboratory is focused on studying the molecular mechanisms of glioma angiogenesis and molecular regulators of tumour metabolism. Specifically investigating the role of bone marrow derived cells in supporting tumour vasculature in gliomas and how differentiation into macrophage and microglia population plays a role in escape mechanisms of evading anti-angiogenic therapy. A second focus of the laboratory, on tumour metabolism, explores the interplay between altered metabolism in response to anti-angiogenic therapy. She also has a translational program, dedicated to establishing the genomic landscape of menigniomas and schwannomas.

TURNBULL-TATOR AWARD

The Turnbull-Tator Award, presented in partnership by the Barbara Turnbull Foundation for Spinal Cord Research and the Brain Canada Foundation, recognizes an outstanding publication by a Canadian researcher in the field of spinal cord and brain injury research. The Turnbull-Tator Award was originally established in 2001 in honour of Barbara Turnbull, and known as the Barbara Turnbull Award for Spinal Cord Research, in recognition of Barbara's tireless efforts to raise awareness about spinal cord injuries, and her advocacy for excellence in research done in Canada in this field.

This award aims to recognize an outstanding publication by a Canadian researcher in the field of spinal cord and brain injury research (including concussion) in the last two years. The winning publication includes novel and ground-breaking results that represents a major advancement for the research area and has the potential to generate new hypotheses. The award is open to all active investigators in any phase of their career, graduate students, and postdoctoral fellows conducting research at a Canadian institution.

Fondation
Brain Canada
Foundation

The Barbara Turnbull Foundation for Spinal Cord Research

Poster Presentations

How does the nature of the bowel impairment influence longitudinal sphincter control after discharge from inpatient rehabilitation?
Presenter: *Thomas P. Walden – Craven Lab*

Remote ischemic preconditioning enhances post-operative outcomes after chronic compressive spinal cord injury.
Presenter: *James Hong – Fehlings Lab*

A deep generative model to simulate rat lumbar vertebral failure via creation of synthetic µCT images.
Presenter: *Allison Tolgyesi – Whyne Lab*

Strategies for the Controlled Release of Protein and Small Drug Therapeutics to Treat Spinal Cord Injury
Presenter: *Quinton Sirianni – Shoichet Lab*

Overground Exoskeleton Rehab in SCI: Evidence-Based Insights for Will to Action Translation
Presenter: *Wagner H. Souza – Craven Lab*

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SPINAL CORD INJURY ONTARIO | LÉSIONS MÉDULLAIRES ONTARIO

Inteligex
PROTECT. REPAIR. REGENERATE

Fondation Brain Canada Foundation

Medtronic

Organizer:

Michael G. Fehlings, MD, PhD, FRCSC, FACS, FRSC, FCAHS
Professor of Neurosurgery
Vice-Chair Research, Department of Surgery
Co-Director, Spine Program
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