

NEUROSURGE

MONTHLY UPDATES FROM THE CHAIRMAN'S OFFICE UNIVERSITY OF TORONTO, DIVISION OF NEUROSURGERY

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FROM THE CHAIRMAN'S OFFICE

On February 19th, we welcomed Dr. Henry Marsh (Senior Consultant Neurosurgeon, St. George's Hospital, London, UK) as the first Labatt Chair Visiting Professor in International Neurosurgical Education at St. Michael's Hospital. Inaugural Labatt Chair Dr. Richard Perrin and interim Division Head Dr. Julian Spears provided opening remarks to a packed audience of over 100 attendees at the Li Ka Shing Knowledge Institute. Dr. Marsh delivered a highly entertaining and insightful lecture entitled "The Duty of Candour - Why is it so difficult for doctors to be honest?" Following his lecture, Dr. Marsh signed copies of his acclaimed book, *No Harm: Stories of Life, Death and Brain Surgery*. We thank Drs. Perrin and Spears and R.S. McLaughlin Chair of Surgery Dr. James Rutka for organizing this excellent event. Following the book signing, Toronto Neurosurgery residents provided Dr. Marsh with a tour of the wards at St. Michael's Hospital before proceeding to Brain School, where he was presented with various cases and discussion.

Dr. Marsh also served as the Keynote Speaker at the Global Surgery Symposium at the Peter Gilgan Centre for Research & Learning that afternoon. The Symposium also included talks by Drs. James Rutka, Mark Bernstein and Mojgan Hodaie.



Dr. Henry Marsh speaking (left) and signing copies of his book (right) at the first Labatt Chair Visiting Professorship in International Neurosurgical Education at St. Michael's Hospital on Feb. 19, 2016.



Dr. Henry Marsh with University of Toronto neurosurgery residents and faculty at the Division of Neurosurgery Brain School on Feb. 19, 2016. Back row (left to right): Jetan Badhiwala, Alireza Mansouri, Chris Pasarikovski. Front Row (left to right): Brian Drake, Kyle Jurashka, Anick Nater, Farshad Nassiri, Dr. Henry Marsh, Dr. Mojgan Hodaie, Benjamin Davidson, Ali Akbar, Ying Meng and Suganth Suppiah.

Dr. Peter Dirks was announced as the leader of a four year, \$11.7 million Stand Up To Cancer grant provided by Stand Up To Cancer Canada, Genome Canada, Canadian Institutes of Health Research, Cancer Stem Cell Consortium, and Ontario Institute for Cancer Research. The award will fund research to better understand stem cells that allow brain tumours in adults and children to grow. The project includes Dr. Sam Weiss (University of Calgary) as co-lead and Dr. Michael Taylor as a principal investigator. A *Globe and Mail* article about the announcement can be accessed here:

<http://www.theglobeandmail.com/news/national/canadian-dream-team-to-probe-stem-cell-link-to-brain-cancer/article28548224/>.



Dr. Peter Dirks at the announcement of his \$11.7 million Stand Up to Cancer grant on Feb. 4, 2016 in Toronto.

Drs. Gelareh Zadeh and Julian Spears are the Chairs of the First International Meningioma Consortium Conference for the Society for NeuroOncology. All faculty and residents are invited to participate in the meeting, to be held June 17-18, 2016 in Toronto. For more information please visit: <http://www.soc-neuro-onc.org/articles/call-for-abstracts-conference-on-meningioma/> or contact Dr. Zadeh at gelareh.zadeh@uhn.ca.

HONORS, GRANTS AND AWARDS

Dr. Mohammed F. Shamji was appointed to the Research Committee of AO Spine NA for a three year term, beginning February 2016.

Michael Fehlings was named President-Elect of the International Neurotrauma Society at the 2016 International Neurotrauma Symposium in South Africa. The 2018 INTS meeting will be in Toronto where Dr. Fehlings will serve as the local host.

Peter Dirks (lead researcher) and Michael Taylor (PI) received a four-year, \$11.7 million Stand Up To Cancer grant.

Gelareh Zadeh (PI) received a \$510,000 CIHR grant for the project entitled "Clinical Investigation of Frameless, Adaptive, Image-guided Gamma Knife Radiosurgery".

Gelareh Zadeh was invited to the Board of Directors and named a Member at Large of the North American Skull Base Society.

Strategic Planning Retreat 2016 University of Toronto Division of Neurosurgery

On February 12-14, 2016, Division of Neurosurgery Faculty convened for a strategic planning retreat at The Crane resort in Barbados. A welcome reception was held on the Friday evening for Faculty and their families, with over 30 in total in attendance. On the morning of Feb. 13th, Dr. Andres Lozano opened the first day of meetings with an overview of the goals of the session, which was followed by presentations by each Faculty member on their “Strengths, Weaknesses, Opportunities and Threats” (SWOT) and “Priorities” analyses for our Division. There was extensive discussion throughout each of the presentations, which provided insight into issues shared across hospitals. On Saturday evening, Faculty and families took part in a catamaran dinner cruise that was generously hosted and sponsored by Toronto Neurosurgery alumnus Dr. Sean Smith and Neurosurgery Barbados. (Dr. Smith is featured in this month’s “University of Toronto Alumni—Where Are They Now?” piece.)

On the morning of Feb. 14th, our Faculty reconvened and Dr. Lozano presented the results of the Division of Neurosurgery Strategic Planning Survey, which had nearly full participation from Faculty at each of our four hospitals. Considerable discussion arose from the results of the anonymous survey, as Faculty were asked to advocate for particular positions on each issue. The formal meeting concluded with a priority setting session in which each Faculty ranked key areas that arose during the SWOT presentations. The results of the survey and outcomes of the retreat will be communicated to all Faculty.



University of Toronto Division of Neurosurgery Faculty at the Strategic Planning Retreat, Feb. 13-14, 2016. Back row (left to right): Drs. Todd Mainprize and Michael Fehlings. Front Row (left to right): Drs. Paul Kongkham, Suneil Kalia, Victor Yang, Abhaya Kulkarni, Andres Lozano, Ivan Radovanovic, Mohammed Shamji and Taufik Valiante.



University of Toronto Division of Neurosurgery luncheon at the Strategic Planning Retreat, Feb. 13, 2016.



University of Toronto Division of Neurosurgery Faculty, families and hosts on a catamaran cruise generously sponsored by alumnus Dr. Sean Smith (Front row, seated fourth from left) and Neurosurgery Barbados at the Strategic Planning Retreat, Feb. 13, 2016.

*UNIVERSITY OF
TORONTO
ALUMNI—Where
are They Now?*



UNIVERSITY OF TORONTO ALUMNI – WHERE ARE THEY NOW?

Dr. Sean Smith, MBBS, FRCSC

One of the gratifying rewards afforded to faculty of the University of Toronto Division of Neurosurgery is the opportunity to help educate worthy individuals from developing countries, who then return to their homeland to provide a high level of neurosurgical care. Dr. Sean Smith is such an individual. Sean is from Barbados, and graduated MBBS from the University of the West Indies in 1999. He interned in Barbados (1999-2000) and then became a senior house officer, first in Accident and Emergency (2000-2002) and then in general surgery (2002-2004), with the intention of choosing a specialty later. However, he was soon assigned to orthopedics because of staffing issues, a field that Sean did not enjoy. When the opportunity to join Dr. John Gill, recently returned to become the only neurosurgeon in Barbados arose, Sean took it, and was gradually persuaded to pursue a neurosurgical career.

Sean was in the neurosurgery program at U of T from 2004 to 2008, and did an AO spine fellowship at Toronto Western Hospital with Drs, Michael Fehlings and Eric Massicotte in 2009-2010. He was certified by the Royal College of Surgeons of Canada in 2012.

Sean returned to Barbados as the country's second neurosurgeon in 2010. He and Dr. Gill are on call alternate weeks for Barbados (300,000 population) and much of the English-speaking Caribbean except Jamaica and Trinidad, and so have a catchment area of 800,000 to 1,000,000 people. Sean's practice is about 70% public (government funded) and 30% private (self-pay/insurance), the latter mainly in his chosen subspecialty of spinal surgery. There are no neuroradiologists, neurointerventionalists or neuropathologists, and limited rehabilitation and radiation oncology facilities sometimes compromise potentially better outcomes. As there is only one neurologist in the public system, the neurosurgeons will occasionally step in to take stroke call, which has been recently introduced.

The lack of resources sometimes restricts the treatment that can be offered, and the lack of trained help makes the practice very labour intensive. ICU, stepdown and ward facilities are shared (read 'competed for') by all surgical specialties. Colleagues from abroad, particularly in Toronto, provide occasional consultation. Dr. Smith feels there would be benefit to setting up a more formal interactive relationship with the U of T community. He feels that real time access by teleconferencing to spine and/ or oncology/ pathology rounds would be especially helpful.

Sean attends at least one major conference per year for CME, and usually one minor conference and several subspecialty courses per year. He reads the major neurosurgical journals, provides invited peer review for several journals, attends M & M and grand rounds, and teaches a variety of learners at different levels. There is on call support from general surgical residents in the University of the West Indies surgery program. Though the impact of technology is growing, and increasing numbers of his patients come for consultation armed with 'Dr Google's' opinion, there is still some resistance to advanced medical care, resulting in some regrettably late presentations. This skepticism was particularly prevalent for spinal problems, though Sean and his senior colleague are steadily building the confidence of the population in this area. Sean is involved with a small group of surgeons and anaesthetists in the development of a newly-built ambulatory surgical centre.

Despite his formidable workload, Sean still makes time for paddle-boarding, running and yoga.

By Bill Tucker

PUBLICATIONS

Agnihotri S, Zadeh G. Metabolic reprogramming in glioblastoma: the influence of cancer metabolism on epigenetics and unanswered questions. *Neuro Oncol.* 2016 Feb;18(2):160-72.

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Fu TS, Jing R, McFaull SR, Cusimano MD. Health & Economic Burden of Traumatic Brain Injury in the Emergency Department. *Can J Neurol Sci.* 2016 Feb 4:1-10.

Furlan JC, Verocai F, Palmares X, Fehlings MG. Electrocardiographic abnormalities in the early stage following traumatic spinal cord injury. *Spinal Cord.* 2016 Feb 16.

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Nagoshi N, Nakashima H, Fehlings MG. Commentary: Preclinical Validation of Multilevel Intraparenchymal Stem Cell Therapy in the Porcine Spinal Cord. *Neurosurgery*. 2016 Feb;78(2):E309.

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Zadeh G, Aldape K. Bringing IDH into the Fold. *Cancer Cell*. 2016 Feb 8;29(2):139-40.

Zou J, Talbot F, Tata A, Ermini L, Franjic K, Ventura M, Zheng J, Ginsberg H, Post M, Ifa DR, Jaffray D, Miller RJ, Zarrine-Afsar A. Ambient Mass Spectrometry Imaging with Picosecond Infrared Laser Ablation Electrospray Ionization (PIR-LAESI). *Anal Chem*. 2015 Dec 15;87(24):12071-9.

VISTING PROFESSORSHIPS

Mark Bernstein was an Invited Speaker at the Global Surgery Symposium. “Bioethical bumps on the road to international surgical collaborations”. February 19, 2016. Toronto, Ontario.

Michael Fehlings was the Keynote Speaker at the 2016 International Neurotrauma Symposium. 1) “Clinical Issues In Spine Injury-New Classification”, 2) “Current Status and Priorities for Research in SCI”, 3) “A Clinical Guideline for the Timing of Surgical Decompression in the Treatment of Acute Traumatic Spinal Cord Injury”. He was also Session Chair “Spinal Cord Injury - Preclinical Neuroprotection Trials”. February 2-5, 2016. Cape Town, South Africa.

Michael Fehlings was a Guest Lecturer at the 4th Annual Ottawa Neurosurgery Review, Webex. “Pathophysiology and Management of Spinal Cord Injury”. February 10, 2016. Ottawa, Ontario.

Michael Fehlings was an Invited Speaker at the Spine Therapy Network-Inaugural Educational Meeting. 1) “Introduction and Launch of STN”, 2) “Degenerative Cervical Myelopathy and Traumatic Spinal Cord injury”, 3) “Closing Remarks”. February 19, 2016. Toronto, Ontario.

Mojgan Hodaie was an Invited Speaker at the Global Surgery Symposium. “Can we train neurosurgeons online? Lessons learned from Cambodia”. February 19, 2016. Toronto, Ontario.

James Rutka was an Invited Speaker at the Global Surgery Symposium. “Building neurosurgical capacity in Ukraine”. February 19, 2016. Toronto, Ontario.

James Rutka was a Guest Lecturer at Weill Cornell Medical College. “Advances in neurological management of brainstem tumours”. February 8, 2016. New York City, New York.

Mohammed F. Shamji was an Invited Faculty at the Ottawa Neurosurgery Review Course, speaking about management of thoracolumbar trauma. February 10, 2016. Ottawa, Ontario.

Mohammed F. Shamji was a scientific session Moderator at the Canadian Spine Society Annual Meeting. February 26, 2016. Whistler, BC.

Michael Tymianski was an Invited Speaker at the 2016 SCBA Scientific Innovation to Commercialization Symposium. “Translational Neuroscience: The good, the bad, and the ugly”. February 12, 2016. Toronto, Ontario.

Michael Tymianski was a Guest Lecturer at the International Stroke Conference. 1) “Neuroprotection/Reperfusion Approaches: Current State and Future Developments”, 2) “Neuroprotection”. February 16-19, 2016. Los Angeles, California.

Michael Tymianski was an Invited Speaker at the Joint Meeting of the 12th International Conference of Cerebrovascular Surgery & 1st Interim Meeting of Asian Australasian Society of Neurological Surgeons. “Minimally invasive and endoscopic approaches to aneurysm surgery” February 26-28, 2016. Mumbai, India.

Gelareh Zadeh was an Invited Speaker at the Princess Margaret Cancer Centre Annual Meeting to present a proposal for a home-run project that will be an innovative change in personalizing cancer in neuro-oncology clinical practice on behalf of the CNS oncology site. The CNS site was highlighted for their proposal at the Personalized Medicine Conference. February 1, 2016. Toronto, Ontario.

Gelareh Zadeh was an Invited Speaker at the 10th North American Skull Base Society Scientific Meeting. “Molecular Predictors of Pituitary Tumor Regrowth”, 2) Brain-storming Session and Panel Discussant on Identifying Metrics of Value Based Pituitary and Endoscopy Surgery, Feb 12-14, 2016.

Gelareh Zadeh was an Invited Moderator for Proffered Papers at the North American Skull Base Society Meeting. February 12-14, 2016.

IN THE MEDIA

Dr. Michael Tymianski and Dr. Mark Bernstein discuss their role in performing surgeries on a young stroke patient - and the ethics of such procedures in the face of poor prognosis - in an interactive piece by the CBC. The piece can be accessed here:

<http://www.cbc.ca/news2/interactives/saving-sid/>.

Additional coverage of Dr. Dirk's Stand Up To Cancer grant can be found in the Toronto Star. The article also features comments from Dr. Michael Taylor. The piece can be accessed at:

<http://www.thestar.com/news/canada/2016/02/04/canadian-scientific-dream-team-to-attack-aggressive-brain-cancers.html>.

PDFs OF THE MONTH

Cho N, Keith J, Pirouzmand F. Lumbar discal cyst as a cause of radiculopathy: case report. Br J Neurosurg. 2016 Feb 19:1-3.

Prud'homme M, Mathieu F, Marcotte N, Cottin S. A Pilot Placebo Controlled Trial of Dexamethasone for Chronic Subdural Hematoma. Can J Neurol Sci 2016 Feb 8: 1-7.

Shamji MF, Mohanty C, Massicotte EM, Fehlings MG. The Association of Cervical Spine Alignment with Neurologic Recovery in a Prospective Cohort of Patients with Surgical Myelopathy: Analysis of a Series of 124 Cases. *World Neurosurg.* 2016 Feb;86:112-9.

Tata A, Gribble A, Ventura M, Ganguly M, Bluemke E, Ginberg H, Jaffray D, Ifa D, Vitkin A, Zarrine-Asfar A. Wide-field tissue polarimetry allows accelerated tumor margin assessment by ambient mass spectrometry. *Chemical Science.* 2016, 7, 2162-2169.

UPCOMING MEETINGS

April 2016

American Association of Neurological Surgeons (AANS) 84th Annual Meeting. Chicago, IL. Apr. 30-May 4, 2016.

June 2016

2016 William S. Keith Lectureship in Neurosurgery at Toronto Western Hospital—Division of Neurosurgery Graduation Ceremony. Jun. 3, 2016. More info to follow.

Acoustic Neuroma Association Medical Conference. Toronto, ON. June 4, 2016. For more information please contact Gelareh Zadeh: gelareh.zadeh@uhn.ca.

Gelareh Zadeh would like to invite all faculty and residents to participate in the annual Acoustic Neuroma Association Medical Conference to be held June 4th in Toronto. For more information, please contact Gelareh at gelareh.zadeh@uhn.ca.

Society of Neurological Surgeons (SNS) 2016 Annual Meeting. Indianapolis, IN. Jun. 4-7, 2016.

13th Annual Neurosurgery Charity Softball Tournament. June 11, 2016. All American Association of Neurological Surgeons (AANS) members are invited. For more information regarding the tournament and post-tournament reception, visit www.neurocharitysoftball.org. Additional information TBA.



SpineFEST. MaRS Centre, Lower Concourse. June 13, 2016.

Call for Abstracts: Michael Fehlings and Albert Yee invite spinal fellow trainees, residents, graduate students and post-doctoral fellows to submit scientific abstracts for oral and poster presentations for SpineFEST™. The deadline is March 6, 2016. Instructions for submission can be found on the attached Word document.

First International Meningioma Consortium Conference for SNO. Toronto, Ontario. June 17-18, 2016.

Canadian Neurological Sciences Federation (CNSF) 51st Annual Congress. Royal York Hotel. Quebec City, QC. Jun. 21-24, 2016. <http://congress.cnsfederation.org/>

September 2016

American Academy of Neurological Surgery (AAcNS) Annual Meeting. Jackson Hole, Wyoming. Sep. 14-18, 2016.

Congress of Neurological Surgeons (CNS) Annual Meeting. San Diego, CA. Sep. 24-28, 2016.

RESIDENTS' CORNER

McGill University Department of Neurology and Neurosurgery and the Department of Neurosurgery of the McGill University Health Centre are seeking an Assistant/Associate Professor in Neurotrauma. More information and how to apply can be found at:

<http://www.mcgill.ca/medicine-academic/positionsavailable>.

Neurosurgery Resident Seminar Schedule and Events- thebrainschool.net

MARCH 2016

Friday, March 4, 2016

Toronto Western Hospital, Main Pavilion 15th Floor Solarium

Topic: Movement Disorders

Suneil Kalia: Introduction to Movement Disorders

Netwon Cho: Basal Ganglia Anatomy

Suneil Kalia: Case presentations

Friday, March 11, 2016

Toronto Western Hospital, Main Pavilion 15th Floor Solarium

Topic: Movement Disorders

Suneil Kalia: Current Developments and the Future

Shervin Taslimi: Review of the Early Stimulation Trial for Parkinson's Disease and Focused Ultrasound Trial for Essential Tremor

Suneil Kalia: Case presentations

Friday, March 18, 2016

Toronto Western Hospital, Main Pavilion 15th Floor Solarium

Topic: Movement Disorders and Psychiatric Disorders

Suneil Kalia: Surgical Management of Movement Disorders

Clement Hamani: Current developments in psychiatric surgery

Clement Hamani: Case Presentation

Friday, March 25, 2016

Cancelled: Good Friday Holiday

RESIDENCY PROGRAM COMMITTEE MEETING

Monday, March 21, 2016, TWH, WW 4-430

NEUROSURGERY CABINET MEETING

Tuesday, March 22, 2016, 7 a.m., TWH, WW 4-438 (library)