



Surgery
UNIVERSITY OF TORONTO

Spine Program

**UNIVERSITY OF TORONTO
SpineFEST™ VISITING PROFESSORSHIP**

Friday, June 25, 2010
The Old Mill Inn
Toronto, Canada



University of Toronto Spine Program

Remarks from Co-Directors:

Dr. Albert Yee

Dr. Michael Fehlings



Colleagues,

The 2009-2010 academic year has marked a time of further program strengthening and confirming our priorities on the path ahead towards functional collaboration integrating clinical care, research, teaching, and educational activities. Our Program Council, with leadership from Toronto Academic Health Sciences Network (TAHSN) spinal units and representation from the University of Toronto (UT) spine research community, has been active in implementing the framework of our academic vision. We are fortunate to enjoy a very rich academic spine calendar.

Following a very successful inaugural Annual UT Spine Visiting Professorship (SpineFEST™) last June, we very much look forward to Dr. Ed Benzel's visit this year. We are privileged to have him visit from the Cleveland Clinic and to be able to highlight a program on cutting edge knowledge and trends in spinal biomechanics and the cervical spine. With over 75% of individuals experiencing an episode of low back pain at some point in our lives, many of us will relate to his Tator-Hall Lecture on 'Back Pain'. Emerging and innovative models of health care delivery both North and South of the border merits timely academic discussion. This will be highlighted at the UT GTA Spine Rounds organized by Dr. Joel Finkelstein as well as during SpineFEST™ with Dr. Daryl Fourney from the University of Saskatchewan providing his experience from a provincial perspective. We are also excited about our TAHSN hospital based

visiting professorships and enjoyed our first visit hosted by St. Michael's Hospital last Fall. Drs. Howard Ginsberg and Henry Ahn coordinated a terrific day with Dr. Tani visiting from Jikei University in Tokyo.

On January 22, 2010, approximately 50 faculty and an additional 10 special guests from the Ontario Ministry of Health and Long Term Care (MOHLTC), the provincial Local Health Integrated Networks (LHINs), TAHSN hospitals and members and staff of the Faculty of Medicine came together to participate in our first strategic planning meeting. Facilitated by Helena Axler and Associates, this was an important milestone for the Program providing the opportunity for a broad number of stakeholders to discuss priorities and strategies to examine spine wait-time issues and care delivery models as well as investigating possible innovations to address key questions in education/training and research. As we move forward with our UT-SpineLINK project we will continue to advocate strongly at the local, regional, and national levels to meet the growing needs of patients with spinal diseases.

In the upcoming academic year, we look forward to leveraging several existing educational courses of strong reputation focused on surgical skills acquisition and will collaborate with Dr. Steve Lewis, University Health Network (UHN), on a UT Spine Program Fellowship Course for incoming trainees. This will build on a hands-on resident course in spine surgery which has been developed by Dr. Eric Massicotte at the UHN. Reflecting their significant contributions to spinal education, we also extend congratulations to Drs. Massicotte and Lewis for their academic promotions to Associate Professor this year. We look forward to the next series of TAHSN hospital based visits hosted by the Hospital for Sick Children and Sunnybrook Health Sciences Centre. We look forward to celebrating a recently established Sunnybrook Centre for Spine Trauma that will synergize with respected City-Wide TAHSN centres in spine and spinal cord injury care. With interest in both our clinical and research trainees, we will focus on implementing a framework that will provide an opportunity for broader trans-disciplinary research opportunities which span the fundamental sciences through to the clinic. To facilitate this plans are underway to organize a series of research-focused seminars to enable the development of research collaborations.

These are but a few of the numerous collaborative initiatives that are being implemented in parallel. These efforts could not be accomplished without the tremendous support of Program faculty. Our Program is also grateful to Ms. Connie Johnson who has been instrumental in coordinating programmatic efforts. We would also like to acknowledge the very strong support of the Department of Surgery as well as the Divisions of Neurosurgery and Orthopaedic Surgery of our Program and its vision in 'innovation and excellence in the delivery of spine care with a unique collaborative program of clinical expertise, research, training, and education'.



Michael Fehlings and Albert Yee
Co-Directors, U of T Spine Program

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Friday, June 25, 2010
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8:00 – 8:30 Balmoral Room	Welcome Reception – Breakfast
8:30 – 8:45 Westminster Room	<p style="text-align: center;">Introductory Comments</p> <p style="text-align: center;">University of Toronto Department of Surgery Spine Program <i>Drs. Albert Yee and Michael Fehlings (Program Co-Directors)</i></p> <p style="text-align: center;">Greetings from the University of Toronto <i>Drs. D. Latter and B. Alman</i></p>
8:45 – 8:50 8:50 – 9:05 9:05 – 9:20 9:20 – 9:35 9:35 – 9:50 9:50 – 10:00	<p style="text-align: center;">SESSION 1 – CERVICAL SPINE Dr. Eric Massicotte (Moderator)</p> <p>Case presentation: Cervical Radiculopathy <i>Dr. Eric Massicotte</i></p> <p>Management Option #1: Anterior cervical approach <i>Dr. G. Hawryluk</i></p> <p>Management Option #2: Posterior cervical approach <i>Dr. Issac Moss</i></p> <p>Discussion</p> <p style="text-align: center;">“Two year outcomes of surgical decompression for cervical spondylotic myelopathy: results of the AOSpine multicenter study in 280 patients” <i>Dr. Michael G. Fehlings</i></p> <p>Discussion</p>
10:00 – 10:30 Balmoral Room	Coffee Break

	THE TATOR-HALL VISITING PROFESSOR LECTURE
10:30- – 10:45	Introduction of Visiting Lecturer <i>Drs. M. Fehlings and A. Yee</i> Visiting Professor – Dr. Ed Benzel, MD
10:45 – 11:40	“ Back Pain: Basics to Rocket Science and Back” <i>Dr. Ed Benzel, Cleveland Clinic</i>
11:40 – 12:00	Discussion: Drs. Michael Fehlings and Albert Yee
12:00-12:45 Balmoral Room	Lunch
	SESSION 2 – LOW BACK PAIN Dr. Henry Ahn (Moderator)
12:45-1:15	“Development of a Provincial Spine Care Pathway for Saskatchewan” <i>Dr. Daryl Fourney, University of Saskatchewan</i>
1:15- 1:35	“Overview of Developments in the Provincial Spine Care Pathway for Ontario” <i>Dr. Hamilton Hall</i>
1:35 – 2:20	Panel Discussion: Managing Back Pain for the Masses <i>Dr. Ed Benzel</i> <i>Dr. D Fourney</i> <i>Dr. H Hall</i> <i>Dr. M Erwin</i> <i>Ms. Rhona McGlasson</i>
2:20- 2:30 Balmoral Room	Coffee Break

	SESSION 3 –BIOMECHANICS AND BIOMATERIALS Dr. Howard Ginsberg, Dr. Cari Whyne (Moderators)
	Presentations by Graduate Students and Research Fellows
2:30- 2:40	Case Presentation <i>Dr. Moti Kramer</i>
2:40-2:50	Tissue engineering the annulus fibrosus <i>Kathleen Turner, MASc Candidate</i>
2:50- 3:00	Mechanical evaluation of a Thiol-Modified-Hyaluronan and Elastin-Like Polypeptide Composite for structural augmentation of the Intervertebral Disc <i>Ashley E. Leckie, MASc Candidate</i>
3:00- 3:10	Preclinical evaluation of the use of a bioengineered hydrogel containing hyaluronan to treat severe spinal cord injury <i>James Austin, PhD Candidate</i>
3:10- 3:20	Do the posterior elements have sufficient strength to support hardware for spinal fusion? <i>Devin Singh, PhD Candidate</i>
3:20- 3:30	Bone Quality Characterization of a New Preclinical Model of Mixed Osteolytic/Osteoblastic Vertebral Metastasis <i>Lisa Wise-Milestone, PhD</i>
3:30	Discussion
3:45	Closing Comments—Drs. Michael Fehlings and Albert Yee



2010 SpineFEST™ VISITING PROFESSOR

Edward C. Benzel, MD

Chairman

Department of Neurosurgery , Cleveland Clinic.

Professor of Surgery

Cleveland Clinic Lerner College of Medicine of Case Western Reserve University (CCLCM of CWRU).

Dr. Benzel's major clinical interests embrace many aspects of neurosurgery, but are focused on spinal disorders including cervical spondylosis, syringomyelia and Chiari malformation, complex spine instrumentation, and spine tumors. Clinical research has encompassed such issues as hydrocephalus, neonatal hemorrhage, cerebrovascular disorders, cranial trauma, critical care, brain death, microelectromechanical systems (MEMS), and of course, spinal disorders.

He has been actively involved in the Congress of Neurological Surgeons, American Association of Neurological Surgery, North American Spine Society (NASS), World Spinal Cord Society, and Cervical Spine Research Society. Dr. Benzel is one of the founding members of the Lumbar Spine Research Society formed in 2007. He serves on numerous committees, and in multiple different positions of the various societies.

Dr. Benzel rigorously reviews clinical and research content for numerous professional neurosurgical and spine publications. He was Co-Chairman of the Editorial Review Board of the *Journal of Neurosurgery* (2003-2004), and is currently Chairman of the Review Board for the *Journal of Neurosurgery: Spine*. He has served as a reviewer for *Neurosurgery*, *Spine*, and *The Spine Journal*, and is an ad hoc reviewer for other journals.

He has authored multiple textbooks (6), and over 225 book chapters. His seminal texts, *Biomechanics of Spine Stabilization* (1st & 2nd Editions) and *Spine Surgery: Techniques, Complications, Avoidance and Management* are conceivably the highlights of his publication endeavors.

Dr. Benzel holds several patents and has participated in many medical advances. He is perhaps best known as an educator. He directed the Neurosurgery Residency Training Program, and the Spine Fellowship Programs at the University of New Mexico, and has been instrumental in the development and success of these programs at the Cleveland Clinic. His innovations in Neurosurgery Resident Education have won accolades and numerous awards.

THE TATOR-HALL VISITING PROFESSOR LECTURE



Dr. Charles Tator is a Professor in the Department of Surgery, at the University of Toronto, and a neurosurgeon at the Toronto Western Hospital. He is the former Chair of Neurosurgery at the University of Toronto. He started the first Acute Spinal Cord Injury Unit in Canada in 1974, and has reported on the epidemiology, prevention and treatment of spinal cord injury. He has undertaken seminal translational and clinical research in spinal cord injury. In 1992, he founded ThinkFirst, Canada, a national brain and spinal cord injury foundation whose mission is to reduce the incidence of catastrophic injuries in Canada. In 2008, the University of Toronto Press published his book "Catastrophic Injuries in Sports and Recreation, Causes and Prevention-a Canadian Study." He has held two research chairs at the University of Toronto, the Dan Family Chair in Neurosurgery and the Campeau Family-Charles Tator Chair in Brain and Spinal Cord Research. In 2000, he received the Order of Canada, and in 2009 he was inducted into the Canadian Medical Hall of Fame.



Dr. Hamilton Hall is a Professor in the Department of Surgery at the University of Toronto and a staff consultant at the Sunnybrook Health Sciences Center. In 1974 Dr. Hall founded the Canadian Back Institute (CBI Health Group), now the largest rehabilitation company in Canada. Dr. Hall continues to serve as its Medical Director. In addition to over 100 published articles and book chapters, Dr. Hamilton Hall is the author of the best-selling Back Doctor series, most recently A Consultation with the Back Doctor. He lectures internationally on the management of Pain Disorder. Locally, his medical student course in the evaluation of the low back has been a favorite of trainees over the years; he has a reputation as an engaging speaker and a superb teacher. He is co-founder and currently Executive Director of the Canadian Spine Society and has been instrumental in bringing together the diverse disciplines in spinal care and in advocating for the specialty.

Dr. Daryl Fourney, MD, FRCSC, FACS

Associate Professor

Director of Residency Training Program

Associate Professor, Division of Neurosurgery, Department of Surgery,

College of Medicine, University of Saskatchewan

Program Director, Division of Neurosurgery, Department of Surgery,

College of Medicine, University of Saskatchewan



Dr. Fourney completed his residency training in Neurosurgery at the University of Saskatchewan and a fellowship in neurosurgical oncology at the University of Texas M.D. Anderson Cancer Center in Houston, Texas. He has a special interest in complex spinal disorders including tumors of the spine. He has authored more than 50 published peer-reviewed articles and book chapters. He is Past President of the Canadian Spine Society. He has been the Director of the Neurosurgery residency training program at the University of Saskatchewan since 2003.

UNIVERSITY OF TORONTO SPINE FACULTY AND SpineFEST™ SPEAKERS

Dr. Henry Ahn: St. Michael's Hospital

Dr. Margarete Akens : Sunnybrook Research Institute

Dr. Benjamin Alman: The Hospital for Sick Children

Dr. Carlo Ammendolia: Mt. Sinai Hospital

Mr. James W. Austin: PhD Candidate

Dr. Ed Benzel: Cleveland Clinic

Dr. Leo da Costa: Sunnybrook Health Sciences Centre

Dr. James Drake: Hospital for Sick Children

Dr. Mark Erwin: Toronto Western Hospital

Dr. Mahmood Fazl: Sunnybrook Health Sciences Centre

Dr. Michael G. Fehlings: Toronto Western Hospital

Dr. Joel Finkelstein: Sunnybrook Health Sciences Centre

Dr. Michael Ford: Sunnybrook Health Sciences Centre

Dr. Daryl Fourney: University of Saskatchewan

Dr. Howard Ginsberg: St. Michael's Hospital

Dr. Hamilton Hall: Sunnybrook Health Sciences Centre

Dr. G. Hawryluk: Neurosurgery Resident

Dr. Rita Kandel: Mt. Sinai Hospital

Dr. Moti Kramer: Sunnybrook Health Sciences Centre

Dr. David Latter: St. Michael's Hospital

Ms. Ashley E. Leckie: MaSc Candidate

Dr. Stephen Lewis: Toronto Western Hospital

Dr. Todd Mainprize: Sunnybrook Health Science Centre

Dr. Barry Malcolm: Sunnybrook Health Sciences Centre

Dr. Eric Massicotte: Toronto Western Hospital

Ms. Rhona McGlasson: Sunnybrook Health Science Centre

Dr. Issac Moss: Orthopaedic Resident

Dr. Cindi Morshead: Donnelly Centre for Cellular and Biomolecular Research

Dr. Farhad Pirouzmand: Sunnybrook Health Sciences Centre

Dr. Raj Rampersaud: Toronto Western Hospital

Dr. James Rutka: The Hospital for Sick Children

Dr. Arjun Sahgal: Sunnybrook Health Sciences Centre

Dr. Michael Schwartz: Sunnybrook Health Sciences Centre

Dr. Molly Shoichet: .Terrance Donnelly Centre for Cellular & Biomolecular Research

Mr. Devin Singh: PhD Candidate

Dr. Charles Tator: Toronto Western Hospital

Ms. Kathleen G. Turner: MASc Candidate

Dr. Alexander Velumian: Toronto Western Hospital

Dr. James G. Wright: The Hospital for Sick Children

Dr. Cari Whyne : Sunnybrook Health Sciences Centre

Dr. Lisa Wise-Milestone: PhD, Sunnybrook Health Sciences Centre

Dr. Albert Yee: Sunnybrook Health Sciences Centre

Dr. Reinhard Zeller: The Hospital for Sick Children

ACKNOWLEDGEMENTS



Program Committee Members:

Dr. H. Ahn, Dr. M. Fehlings, Dr. H. Ginsberg, Ms. Connie Johnson, Dr. E. Massicotte, Dr. C. Whyne, Dr. A. Yee