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

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FROM THE CHAIRMAN’S OFFICE
The Year in Review:
Yet another outstanding year has come to a close for the Division of Neurosurgery. In this final issue of Neurosurge for the 2007-2008 academic year, I will summarize the major accomplishments and events of our Division for the year. Before I do, I wish to congratulate Charles Tator for delivering this year’s Penfield Lecture, and Betty Kim for delivering the KG McKenzie Award Lecture for best resident research paper at the Annual Meeting of the CNSF in Victoria BC, June 17-20.

Major Events:
1. Annual Chairman’s Canoe Trip with second annual Visiting Professor, Dr David Piepgras, Department of Neurosurgery, Mayo Clinic, Rochester. North Tea Lake in Algonquin Park September 7 - 9, 2007.
2. Visiting Professor, City Wide Rounds, Sick Kids Hospital, Dr Peter Carmel, Professor and Chair of the Department of Neurological Surgery, University of Medicine and Dentistry of New Jersey, October 19th, 2007
3. Opening of the new Epilepsy Monitoring Unit (EMU), Toronto Western Hospital, October 17th, 2007
Winners: 1st Prize - Dr. Adrian Laxton; 2nd Prize – Dr. Sarah Woodrow

6. 10th Annual Arthur and Sonia Labatt Academic Lectureship, Dr Henry Brem, Professor and Chairman of Neurosurgery, Johns Hopkins University, January 24th, 2008.
7. Visiting Professor, City Wide Rounds, Sick Kids Hospital, Dr Ben Warf, A.I DuPont Hospital for Children, Wilmington, Delaware, February 29th, 2008
9. Visiting Professor, City Wide Rounds, Toronto Western Hospital, Dr Gail Rosseau, The Chicago Institute of Neurosurgery and Neuroresearch, March 28th, 2008.
10. Lougheed Microvascular course, The Surgical Skills Centre, Mount Sinai Hospital, April 7-11th, 2008, with visiting professor, Dr Michael West, University of Manitoba.
11. Visiting Professor, City Wide Rounds, Sunnybrook Health Sciences Centre, Dr Robert Harbaugh, Professor and Chairman of Neurosurgery, Penn State University and Milton S. Hershey Medical Center, Pennsylvania, April 18th, 2008.
12. Visiting Professor, City Wide Rounds, St Michael’s Hospital, Dr Robert Rosenwasser, Thomas Jefferson University Hospital, May 16th, 2008.
13. Annual Gallie Day Award Winners May 2nd, 2008: Bernard Langer Surgeon-Scientist Award, Dr. Michael Taylor; DR Wilson award for best undergraduate teacher in the Department of Surgery, Dr. Mel Boulton; Gallie-Bateman Award for best resident research paper and presentation, Dr. Betty Kim
14. 2008 Annual E Bruce Hendrick Lectureship, Sick Kids Hospital, Professor Ann Christine (Tina) Duhaime, Dartmouth-Hitchcock Medical Center, Lebanon New Hampshire, May 30th, 2008; AR Hudson Annual Teaching Awards: Faculty, Michael Cusimano; Resident; DJ Cook; Warren Ho Memorial Scholarship, Scellig Stone
15. 2008 CNSF Annual Meeting June 17-20, Victoria, BC, Penfield Lecturer, Dr Charles Tator; K.G. McKenzie Memorial Prize winner for Basic Science Research, Dr. Betty Kim
16. Number of publications by neurosurgery faculty and residents = 182
17. Number of New Grant Awards, Faculty = 26
18. Number of New Fellowship awards, Residents = 6
19. Number of Visiting Professorships by Faculty = 134
20. New Fellows of the Royal College of Surgeons of Canada: Dr. Mel Boulton; Dr. Frank Farhadi; Dr. Brad Jacobs; Dr. Todd Mainprize; Dr. Cian O’Kelly; and Dr. Mandeep Tamber
21. New Faculty Appointments: Dr. Gelareh Zadeh, Toronto Western Hospital; Dr. Todd Mainprize Sunnybrook Health Sciences Centre

HONOURS AND AWARDS
Gregory Hawryluk was awarded the 2008-2009 CNS/Synthes Spine Fellowship.

David Cadotte received the Fitzgerald Academy, Faculty of Medicine, University of Toronto Resident Teacher Excellence Award for the 2007-2008 academic year.

Greg Hawryluk was awarded a Synthes CMF Neurosurgical Resident Travel Grant to attend the National Neurotrauma Symposium in Orlando Florida this July.
Ab Guha was awarded Top 40 Alumni- 40 Year Anniversary, The University of Toronto, Mississauga

Michael Fehlings and Dr. Molly Schoichet were awarded a 2-year grant from the Physicians’ Services Incorporated Foundation for their project entitled “Neuroprotection of the injured spinal cord using an anti-apoptotic molecule delivered through a novel bioengineered drug delivery system”.

Ab Guha received a 2 year NCIC grant for his work entitled “The Role of Oncogene-Containing Microvesicles”.

U. OF T. NEUROSURGERY AT THE CNSF ANNUAL MEETING, VICTORIA, BC, JUNE 17-20, 2008 (See attached photos below)
The following neurosurgical faculty and residents took part this year in the program of the CNSF meeting:

Michael Fehlings. Chair Select Plenary Presentation
Michael Tymianski. Chair. Cerebrovascular Surgery Course
Michael Tymianski. Treatment of carotid intracranial vascular occlusive disease
Michael Fehlings. Transplant Strategies.
Eric Massicotte. Chair. Spine Course, Timing of surgical management
Charles Tator. Penfield Lecture – Sports related brain and spinal cord injuries in Canada
Michael Tymianski. Chair’s Select Plenary Presentations.
Michael Fehlings. The STASCIS study: initial one year results of a prospective, multicenter trial to evaluate the role and timing of decompression in patients with cervical spinal cord injury.
Betty Kim. KG McKenzie Award Lecture, Engineered nanoparticles for enhancing therapeutic and cellular responses.
Jame Drake. Prospective surveillance of complications in a pediatric neurosurgery unit.
Cian O’Kelly and Chris Wallace. Shunt dependent hydrocephalus following aneurismal subarachnoid hemorrhage: analysis of incidence, revision rates, and long term outcome using Ontario provincial administrative data.
Ann Parr. Transplanted adult spinal cord derived neural stem/progenitor cells promote early functional recovery through neuroprotection after rat spinal cord injury.
Loch Macdonald. Obesity and neurosurgery.
James King and James Rutka. The paediatric neurosurgical implications of achondroplasia.
Michael Fehlings. Factors associated with the need for mechanical ventilation and the occurrence of extubation failure in patients with traumatic spinal cord injury.
Michael Fehlings. Age as a key determinant of functional recovery after traumatic spinal cord injury: analysis of the third national acute spinal cord injury study (NASCIS-3) database.


Shobhan Vachhrajani, Mark Bernstein. Complications of gamma knife radiosurgery at Two Canadian centres.


Leo da Costa, Julian Spears. Endovascular Clip System (eCLIPs® - histological results.

Karim Mukhida. International neurosurgical education: an experience from the Da Nang General Hospital, Viet Nam.

Karim Mukhida. Wilder Penfield’s contributions to neuro-oncology.

Peter Dirks. Cerebrovascular reactivity (CVR) in neurofibromatosis I (NF1) with moyamoya.


Leo Da Costa, Julian Spears. Inflammatory adverse events associated with the endovascular treatment of medium and large intracranial aneurysms.

Leo Da Costa. Aneurysmal subarachnoid hemorrhage in perivascular spaces mimicking brainstem hematoma.


PUBLICATIONS


VISITING PROFESSORSHIPS

Michael Tymianski was the Dwight Parkinson Visiting Professor, Dept of Neurosurgery” in Winnipeg, MB. June 5-6, 2008. 1/ "Role for EC-IC bypass in the Modern Era". 2/ "Beyond Toxicity-why neurons still die in a stroke, and what to do about it" and 3/ "The role of a clinician scientist in neurosurgical life--not for everyone, but essential for some.”


David Cadotte was an Invited Presenter at the Neurosurgical Society of America meeting June 2008 at Whistler, BC. “Idiopathic Spinal Cord Herniation: Imaging characteristics and Management”.

Karen Davis was an Invited Lecturer at the University of Minnesota, Neurology Grand Rounds, Minneapolis, MN, May 2008. “The brain in acute and chronic pain”.

Ab Guha was an Invited Speaker at Mt. Sinai School of Medicine: Dept. of Oncological Sciences Grand Rounds, New York, May 20, 2008. “Transgenic Glioma Models as Gene Discovery Tools”.

Ab Guha was an Invited Speaker at the Childhood Tumor Foundation Annual Mtg: “Management of Malignant Peripheral Nerve Sheath Tumors”. Naples, Italy, June 7, 2008.

Ab Guha was an Invited Speaker at the Schering-Plough Update on GBM: Surgical Management of GBMs, Sapporo, Japan, June 14, 2008

Ab Guha was an Invited Speaker at RTOG- TRP SPORE- “Warburg Effect in GBMs; Aging Vasculature in GBMs”. Philadelphia, PA. June 20, 2008

Ab Guha was an Invited Speaker at the 17th International Brain Tumor Research and Therapy Meeting, Hakodate, Japan. 1/ GATA4 Expression in the Normal CNS and its Frequent Loss in Human Gliomas. 2/ The Warburg Effect and Tumor Cell Survival in Human GBM. 3/ Expression and Functional Significance of Inhibitors of Apoptosis Proteins (IAPs) in Human Gliomas. 4/ Characterization and transformation potential of synthetic astrocytes differentiated from murine embryonic stem cells. June 9-12, 2008


Michael Fehlings was an Invited Guest at the ASIA/Spine Trauma Study Group Meeting, San Diego, CA. 1/ Co-Chair and presentation on STSG Update and Vision for the Future STASCIS Update and Plans for Radiographic Analysis. 2/ Member and participant in ASIA’s Industry Advisory Council (IAC) meeting. 3/ Co-Chair: Spine Symposium: Spinal Trauma: Evidence Based Spine Trauma Treatment Techniques. 4/ Session 2 Spinal Cord Injury: Talk "Case: Cervical Dislocation and Incomplete SCI”. June 19-21, 2008

Michael Fehlings was an invited speaker at the Second Annual Spinal Cord Injury Translational Research Network Meeting, Montreal, QC. June 24:

Michael Fehlings was an Invited Speaker at Spinal Cord: 1/ Function, Repair and Rehabilitation After Injury; 2/ Repair and Regeneration of the Acutely Injured Spinal Cord: Opportunities for Clinical Translation of Basic Discoveries. Montreal, QC, June 25-26, 2008


Andres Lozano was an Honoured Guest ABCCUR (Argentina, Brazil, Chile, Uruguay): Joint Meeting on Functional and Stereotaxis Neurosurgery - Argentina, 2008: (1) Thalamic Anterior Ventral Nucleus Stimulation for the Control of Epilepsy; (2) Surgical Treatment of Movement

Andres Lozano was the Meeting Chair, 15th Meeting of the American Society for Stereotactic and Functional Neurosurgery (ASSFN) Meeting: New Horizons in Functional Neurosurgery. (1) Surgical treatment of Alzheimer’s disease; (2) DBS: Ventral cingulate gyrus; (3) Vancouver, BC. June 1-4, 2008

Andres Lozano was an Invited Guest Speaker. Neuromodulation Conference, Bellaria Hospital, Department of Neurosurgery. “New Trends in neurostimulation: Where does the pipeline go?” Como Italy. June 14, 2008

Andres Lozano was an Invited Guest at the Movement Disorder Society’s 12th International Congress of Parkinson’s Disease and Movement Disorders. Chair, Session (1) Deep brain stimulation surgery meets neurosurgery (2) Surgery for depression. Chicago, ILL. June 25, 2008.

Jim Rutka was an invited speaker at the Lawrence J Pool Memorial Symposium on Glioma biology and management, Columbia University, New York City, “Targeting glioma invasion”

Jim Rutka was an Invited Speaker at the 17th International Brain Tumor Research and Therapy Meeting, Hakodate, Japan. The role of Ect2, Trio and Vav3 in glioma invasion. June 9-12, 2008

RESIDENTS’ CORNER
Welcome Party 2008 at the home of Mari and Jim Rutka. Saturday, July 12th, 2008, 6 p.m. Please mark your calendars. If you have not yet responded to the invitation, please let Stephanie know as soon as possible.

Annual Resident Golf Tournament, Angus Glen Golf Course, Sunday August 24th, 2007. Please let Stephanie or DJ know if you plan to attend.

Annual Chairman’s Canoe Trip, Surprise Location, September 5-7, 2008

Michelle Gervais and Charles Matouk were married June 16, 2008.

ANSWER TO JUNE’S QUESTION (NEUROSURGE Volume 9, Issue 10)
Define:

1. Projection fibres
2. Association fibres
3. Commissural fibres
4. Corpus striatum
5. Lentiform nucleus
6. Corona radiata

1. Projection Fibres – Projection axons extend centripetally out of the cortex to reach more
or less distant subcortical structures, such as the basal ganglia, brainstem nuclei and, the grey matter of the spinal cord.

2. Association Fibres – Some (projection) axons remain confined to their own hemisphere in which they connect different parts of the cortex as long or short association fibres (Fig. 6-2). For example, association fibres connect with visual, auditory and other sensory areas.

3. Commissural Fibres – Commissural fibres join the 2 cerebral hemispheres and, the bulk of which pass one side to the other through the corpus callosum. Despite the enormous number of commissural fibres passing through the callosum, limited information is available concerning their functional significance apart from linking the 2 hemispheres, thereby ensuring that they act as a single entity. (The number of fibres is unknown in the human, but in the cat there are 700,000/mm².)

4. Corpus Striatum - Consists of the lentiform nucleus + caudate nucleus.

5. Lentiform Nucleus – The shape of a biconvex lens consists of the large lateral part the putamen + the smaller, medial globus pallidus.

6. Corona Radiata Distribution – Projection fibres radiating from the level of the internal capsule upwards and outwards in the shape of a curved fan to reach the cortex.

PDF OF THE MONTH

By going to this PDF, you will see Fred Gentili’s excellent review of 200 cases of endoscopically removed pituitary tumors when compared against a contemporary microneurosurgical series. Congratulations Fred!

WEBSITE OF THE MONTH
http://www.thinkfirst.ca/default.asp

By going to this website, you will see the opening page of Think First Canada Foundation. There is an abundance of excellent information here for the practicing neurosurgeon including guidelines for return to sports after concussion. Many of you will find this extremely useful in your clinics or when consulting with patients.

A special thanks to Charles Tator for his role in establishing Think First Canada as an important national chapter, and for being such an excellent spokesperson for head and spinal cord injury prevention.
UPCOMING NEUROSURGICAL MEETINGS, EVENTS, AND ANNOUNCEMENTS


Ninth Annual Meeting of the Canadian Spine Society. Gatineau, Quebec. March 18-21, 2009

XIV World Congress of Neurological Surgery, Boston, MA. August 30-September 4, 2009

NEUROSURGERY RESIDENT SEMINARS, 9 a.m. to noon, Room 1527, The Hospital for Sick Children unless otherwise noted.

See you in September! The schedule will be sent out during the summer.

HEADS OF DIVISIONS MEETING
A business dinner meeting will be held Monday, July 7th, 2008.

RESIDENCY PROGRAM COMMITTEE MEETING
September 2008. Schedule to follow.