NEUROSURGE

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

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FROM THE CHAIRMAN'S OFFICE

Another neurosurgical first for the Division of Neurosurgery, the University of Toronto. Peter Dirks’ lab published their seminal findings on human brain tumour stem cells this month in *Nature* 432: 396-401, 2004 (please see attached PDF). As you know, Nature is arguably the most prestigious scientific journal in which to publish one’s best scientific work. *Nature*’s impact factor is 30.9, *Science*’s 29.2, *Lancet*’s 18.1, and *Neuron*’s 14.1. For those interested, and to put Peter’s publication into some perspective, the impact factor of *J Neurosurgery* is 2.28 and of *Neurosurgery* 2.3. Congratulations to Sheila Singh, lead author, and to Peter Dirks, Senior Author, and all collaborators on this outstanding achievement!

IN MEMORIAM

Harold J Hoffman, Emeritus Professor of neurosurgery, passed away on November 14, 2004. The eulogy given by Jim Rutka at the funeral service is attached (see below).

HONOURS AND AWARDS

Howard Ginsberg has been appointed as Assistant Professor of Engineering in the Institute of Biomaterials and Biomedical Engineering, University of Toronto.

Peter Dirks was invited to join the CIHR Centers of Excellence group on stem cells, the Stem Cell Network.

Michael Taylor received the best individual investigator award for his presentation: Genome Wide Approaches to Pediatric Ependymoma, at the Tumor Satellite Symposium of the AANS/CNS, San Francisco, CA, October 20-22, 2004.
Michael Taylor received an award for the best pediatric paper: Site Specific Genetic Changes and Precursor Cells Define Distinct Molecular Subsets of Human Ependymoma, presented at the annual meeting of the Society for Neuro-oncology meeting held in Toronto, November 18-21, 2004.

Michael Fehlings has received a 5 year CIHR New Emerging Team grant for the area of Regenerative Medicine and Nanotechnology. His team’s grant was entitled: Regenerative medicine strategies for spinal cord injury repair: Integration of stem cell biology, nanotechnology, bioengineering approaches and neurosurgical application. The award was for 5 years, and worth $1.5 million. Congratulations to Michael and his team for this outstanding achievement! Team members include Dr’s Van der Kooy, Morshead, Shoicet, Stanisz, and Tator.

Michael Taylor has been appointed to the Editorial Board of the Journal of Neuro-oncology.

Ab Guha was a Scientific Program Committee Member for the annual meeting of the Society of Neuro-oncology, Toronto, Nov 17-21, 2004

Karim Mukhida received the Margot Anderson Award at the recent meeting of the Congress of Neurological Surgeons meeting, San Francisco, CA, October 19th, 2004

Michael G. Fehlings; and Eric Massicotte; received a 3 year AO Spine Center of Excellence Award from the AO International Foundation for The Toronto Western Hospital Spinal Program.

Michael Fehlings has been inducted into the American Academy of Neurological Surgery.

Andres Lozano has been inducted into the American Academy of Neurological Surgery.

Andres Lozano has been elected President of the American Society for Stereotactic and Functional Neurosurgery 2004

Andres Lozano has been appointed to the position of Chairman of the Joint Section on Stereotactic and Functional Neurosurgery of the CNS/AANS.

Cian O’Kelly is the recipient of a Johnson and Johnson Medical Products-Surgeon-Scientist Fellowship for 2004-05.

Michael Fehlings is the recipient of a grant from the McLaughlin Centre for Molecular Medicine to study spinal cord injury repair.

Michael Fehlings and Charles Tator have been awarded a grant from the Christopher Reeve Paralysis Foundation for their participation in the North American Clinical Trials Network for the Treatment of Spinal Cord Injury.
PUBLICATIONS


VISITING PROFESSORSHIPS
Michael Schwartz was an Invited Speaker at the annual meeting of the Societe de neurochirurgie in Paris, France, November 22, 2004. Embolization prior to radiosurgery for arteriovenous malformations (AVMs) reduces the obliteration rate.
Michael Cusimano was an Invited Speaker at the GEOIDE Strategic Initiative Workshop for Increased Social Science Research at Ryerson University, Centre for Study of Commercial Activity, Toronto. November 19, 2004.

Jim Rutka gave the 1/ Magistral Lecture: Current and Future Management of Brain Tumors in Children; 2/ "The Neurosurgical management of Epilepsy in Children; 3/ Separation of Craniopagus Twins: The Hospital for Sick Children Experience at the 1st International Levantine Forum: Advances in Neurological Surgery, Nov 7th-9th, 2004 Bari Italy


Jim Rutka was an Invited Speaker at the Runn Course, Woods’ Hole, MA. “Developmental Signaling Pathways and Human Brain Tumors”. October 31-November 6, 2004.

Peter Dirks was an Invited Speaker at the CIHR Centers of Excellence group on stem cells, the Stem Cell Network. Cancer Stem Cells in Nervous System Tumors, Montreal, Quebec, November 3, 2004.

Michael Taylor presented at the Tumor Satellite of the AANS/CNS. Genome Wide Approaches to Pediatric Ependymoma. San Francisco, CA, October 20-22, 2004

Michael Taylor presented at the Society for Neuro-oncology meeting. Site Specific Genetic Changes and Precursor Cells Define Distinct Molecular Subsets of Human Ependymoma. Toronto, Ontario, November 18-21, 2004

Ab Guha attended the NIH Grant Panel Review: Washington DC, Nov 14-16, 2004

Michael Cusimano was an Invited Speaker at the AAMC/RIME meeting. Consistency of Standards & Stability of Pass/Fail Decisions with Examinee Based Standard Setting Methods in a Small Scale Objective Structured Clinical Examination. Boston, October 2004

Jim Drake was a Lecturer at the Asia Pacific Course in Pediatric Neurosurgery. 1/ Surgical Techniques – How to do it? Image Guided Surgery; 2/ Epilepsy Surgery in Children. Temporal Lobe Epilepsy. Royal Children’s Hospital, Melbourne, Australia. October 24-31, 2004
Michael Fehlings spoke at The First Annual Krembil Neuroscience Symposium, Minimally invasive management of osteoporotic and neoplastic spine fractures by percutaneous kyphoplasty”, Toronto, November 8, 2004

Michael Fehlings was an Invited Speaker at the Spine Trauma Study Group Meeting. 1/ Co-Chair, An interactive spine course focusing on contemporary surgical techniques in spine trauma; 2/ State of the Art Update - Techniques and Timing of Surgery in SCI; 3/ Panel Member and Discussant for case presentations. Memphis, TN, November 18, 2004

Michael Fehlings attended as a Member of Spinal Cord Injury Clinical Trials Advisory Panel, “ICCP Clinical Trials”, Los Angeles, CA, November 19, 2004,

Michael Fehlings Chaired the Resident Clinical Research Presentations for the William J. Horsey Prize during the E. Harry Botterell Lectureship in Neurosurgery, Toronto, November 29, 2004

RESIDENTS’ CORNER
If any resident has an interest in the Surgeon Scientist program for 2005, please contact Val Cabral, Research Program Co-ordinator for Surgical Research in the Department of Surgery Research Office, University of Toronto, and University Health Network, 200 Elizabeth Street, EN 9-232. tel: 416-340-3105; fax: 416-595-9486; email: Val.Cabral@uhn.on.ca

Faculty versus resident hockey match will take place Saturday, December 18th, 2004, Varsity Arena @ 5:00 p.m. Please contact Stephanie if you are able to attend.

Numerous postgraduate awards are available from the University of Toronto Faculty of Medicine. Several apply to neurosurgery, and residents are encouraged to apply. http://www.facmed.utoronto.ca/English/page-13-9707-1.html

QUESTION OF THE MONTH (Prepared by Robin Humphreys)
Respond correctly from the graphic provided,

1. The lesion at A most likely resulted from occlusion of –
   a. Basilar artery
   b. Superior cerebellar artery
   c. Anterior spinal artery
   d. Vertebral artery
   e. Posterior inferior cerebellar artery

2. The lesion at B most likely resulted from occlusion of –
   a. Paramedian branch of the basilar artery
   b. Circumferential branch of the basilar artery
   c. Superior cerebellar artery
   d. Anterior inferior cerebellar artery
   e. Anterior spinal artery

3. Structures affected by the lesion at B include -
a. Medial lemniscus  
b. Lateral lemniscus  
c. Corticospinal tract  
d. Medial longitudinal fasciculus  
e. Tectospinal tract

4. The lesion at B would most likely result in which of the following deficits –  
a. Paralysis of the contralateral limbs  
b. Loss of conscious proprioception of the contralateral side of the body  
c. Nystagmus  
d. Lateral gaze paralysis  
e. Facial paralysis

ANSWER TO THE LAST QUESTION (October NEUROSURGE Volume 6; Issue 2)  
Anatomical Structures on Brain Section.
1. Putamen.  
2. Posterior limb of internal capsule.  
3. Posterolateral ventral nucleus of thalami.  
5. Optic radiations.  
6. Centromedian nucleus of thalamus.  
7. Lateral pulvinar nucleus of thalamus.  
8. Medial pulvinar nucleus of thalamus.  
10. Cuneus.  
11. Cingulate gyrus.  
12. Splenium of corpus callosum.  
13. Tapetum.  
15. Fimbria of hippocampus.  
16. Tail of caudate nucleus.  
17. Circular sulcus of insula.  
18. Dorsal medial nucleus of thalamus.  
20. Mamillothalamic fasciculus.  
22. Short gyri of insula.  
23. Third ventricle.  
24. Column of fornix.  
25. Head of caudate nucleus.  
27. Stylus of septum pellucidum.  
29. Stria medularis of thalamus.  
30. Genu of internal capsule.  
31. Anterior limb of internal capsule.  
32. Globus pallidus II.
33. Extreme capsule.
34. External medullary lamina of globus pallidus.
35. Clastrum.

PDF OF THE MONTH

Congratulations to the Dirks’ lab and collaborators for this outstanding scientific report.

WEBSITE OF THE MONTH
http://www.sciencegateway.org/impact/index.html
In which the various impact factors for all the scientific journals are reported. You will be interested, I am sure, to see the different rankings for the various neurosurgery and neuroscience journals.

UPCOMING NEUROSURGICAL MEETINGS AND EVENTS
Department of Surgery University Rounds, Friday, December 3rd, 2004 @ 7:30 a.m., The Hospital for Sick Children, Auditorium, First Floor, Elm Wing, Bioethics: Enabling Surgical Innovation, Darius Bagli, Jacob Langer, Martin McKneally, Randi Zlotnik Shaul.

Canadian Congress of Neurological Sciences, June 14-18, 2005, Ottawa, Ontario. Abstract Deadline: January 10th, 2005

November 29-30th
2004 E. Harry Botterell Lectureship in Neurosurgery
Guest Lecturer: Professor Albert L. Rhoton Jr., Professor and Chairman Emeritus Department of Neurosurgery, University of Florida
Monday, November 29th: Toronto Western Hospital, Main Auditorium, West Wing, 2-401
0900-1200 Case Presentations by University of Toronto Neurosurgical Residents
1400-1600 Resident Clinical Research Presentations for the William J. Horsey Prize
1600-1700 Professor Albert L. Rhoton Jr. Temporal Bone Anatomy 3-D Presentation

Tuesday, November 30th: Toronto Western Hospital, Main Auditorium, West Wing, 2-401
0900 Opening remarks
0905 Professor Albert L. Rhoton
The art and beauty of the brain in neurosurgery
1005 Announcement of the Connell and Gross Awards in Neuroscience Nursing
Announcement of the Horsey Prize Winner
1010 Coffee
MINI-SYMPOSIUM: Pituitary and Skull Base Surgery
Chairman: Dr. James Rutka
1030 Professor Albert L. Rhoton
The Anatomic Basis of Skull Base Surgery (3-D Presentation)

1100 Dr. Ian Witterick
Endoscopic techniques in skull base surgery

1115 Dr. Patrick Gullane
Surgical options and outcome in anterior skull base neoplasms

1130 Dr. Fred Gentili
Management of large invasive pituitary adenomas

1145 Dr. Shereen Ezzat
Advances in medical therapy for pituitary tumours

1200-1345 OMA Section on Neurosurgery: Neurosurgeons Association of Ontario
Luncheon Business Meeting
Conference Room A, East Wing 2-512
1200-1345 Residents' Luncheon with Professor Albert L. Rhoton
Fell Pavilion 6-103

1400 Dr. Andres Lozano
Towards deep brain stimulation to treat refractory major depression

1415 Dr. James Rutka
Pediatric Neurosurgery - Dr. Hoffman's Slides
SYMPOSIUM ON CEREBROVASCULAR NEUROSURGERY: A TRIBUTE TO Dr. W.M. L. LOUGHEED
Chairman: Dr. Fred Gentili

1430 Dr. Max Findlay
Bill Lougheed, teacher, master surgeon

1445 Dr. Michael Schwartz
Predicting the outcome of AVM radiosurgery

1500 Dr. Chris Wallace
When not to operate on vascular malformations

1515 Professor Albert L. Rhoton
Anatomy and surgical approaches to the basilar apex

1530 Dr. Michael Tymianski
Surgery for brainstem cavernous malformations

1545 Dr. Robert Willinsky
Advances in the endovascular treatment of intracranial aneurysm

1600 Royal College of Physicians and Surgeons of Canada Lecture
Professor Albert L. Rhoton
Anatomy and surgical approaches to the CP-angle

Faculty Family Holiday Reception hosted by the Department of Surgery, University of Toronto, Thursday, December 2nd, 2004 @ 6:30 p.m., Acqua Ristorante, BCE place.

NEUROSURGERY RESIDENT SEMINARS
December 3rd
Pain
Introduction to Pain, Dr. M. Hodaie
Relevant Anatomic Circuits, Micro/Physiology, Dr. M. Salter
Facial Pain: Trigeminal Neuralgia, Other CN Neuralgias and Atypical Facial Pain, Dr. G. Hawryluk
Non-Surgical Headaches for the Neurosurgeon, Diagnosis and Management, Dr. J. Gladstone

December 10th
Functional Pain
Relevant Anatomic Circuits in Pain, Gross Anatomy, Dr. M. Boulton
Management of Failed Back Syndrome, Dr. E. Meirelles
Surgical Management of Pain, Peripheral Procedures, Dr. T. Mainprize
Non-surgical Management of pain: Medical, TBA

December 17th
Chairman’s Mini Quiz

HEADS OF DIVISIONS MEETING
December 2004, TBA

RESIDENCY PROGRAM COMMITTEE MEETING
Tuesday, December 14th, 2004, 0700 to 0800 hours, Room 6711, Atrium, The Hospital for Sick Children.