

NEUROSCIENCE NEWSLETTER

PROGRAM NEWS

The University of Toronto Neuroscience Program (UTNP)

The Faculty of Medicine of the University of Toronto has established a new academic program, the University of Toronto Neuroscience Program (UTNP) and appointed Professor Michael G. Fehlings as its first Director effective September 1, 2008.

By creating the UTNP, the University of Toronto aspires to build a robust, integrated and collaborative academic program in neurosciences across our Departments and Faculties on campus and with its affiliated hospitals and their research institutes.

Dr. Fehlings is Professor in the Division of Neurosurgery at the Department of Surgery of the UofT and holds several leading positions in basic and clinical neuroscience including the Krembil Chair in Neural Repair and Regeneration, Medical Director of the Krembil Neuroscience Program, Director of the Spinal Cord Clinic and Head of the Spinal Program.

The mandate of UTNP is to provide the leadership and administrative support for the development of new educational programs, the review and revision of existing undergraduate and graduate programs in the neurosciences in cooperation with the relevant departments. The ultimate goal of UTNP is to attain the highest level of interdisciplinary neuroscience education in the world. The program will also create opportunities for integrative inter-disciplinary research, enhance the visibility of the UofT neuroscience in all its aspects, and function as an instrument for increased private and government funding for research and teaching. The UTNP will help enhance the student experience at the University through various stipends, awards and student/research exchange opportunities. There will also be the ability to connect the University to the broader community in terms of public policy and outreach.

The program is funded by the Academic Initiative Fund of the Faculty of Medicine of UofT.

In the next few months, the UTNP will develop a strategy for implementing its mandate. Within the first year of its creation, the UTNP will initiate a process of extensive consultations with UofT neuroscience community and willing stakeholders to effectively formulate a logical and feasible strategic direction towards an establishment of a world class neuroscience center.

Volume 25 Number 2

October 2008

Program Committee Members

D.R. Hampson / PHARM. SCI. (Dir)	J. Peever / CELL AND SYSTEMS BIOLOGY
J.O. Dostrovsky / PHYSIOLOGY (Advisor)	J. Roder / MOL. GENETICS
W.M. Burnham / PHARMACOLOGY	B.J. Sessle / DENTISTRY
P. Carlen / INST. MED. SCIENCE	M. Shoichet / INST. BIOMAT. & BIOMED. ENG.
L.F. De Nil / SPEECH LANG. PATHOL.	Z. Jia / PHYSIOLOGY
Z. Jia / PHYSIOLOGY	B. Stefanovic / MEDICAL BIOPHYSICS
M. Lewis / HUMAN DEVELOPMENT AND APPLIED PSYCHOLOGY	W. Trimble / BIOCHEMISTRY
S. Nag / LAB. MED. PATHOBIOL.	J.W. Wells / PHARMACY
	J.S. Yeomans / PSYCHOLOGY
	K. Zabjek / REHAB. SCI.

UTNP/PIN Office: Room 102, Tanz Neuroscience Building, M5S 3H2.

Telephone: 416-978-4894 Fax: 416-978-1878

e-mail: p.neuroscience@utoronto.ca.

<http://www.utoronto.ca/neurosci>

Office Hours: Mondays to Thursdays – 11:00am-4:00pm

The UTNP and PIN:

The UTNP does not replace but incorporates the existing Collaborative Program in Neuroscience (PIN), which will continue its role in overlooking graduate studies in neuroscience and offering M.Sc., M.A. (Psychology) and Ph.D. degree specialization. Professor Jonathan Dostrovsky, who has been the Director of PIN for the past 15 years, will continue to be involved in PIN and UTNP in an advisory role. On behalf of the PIN membership, we would like to thank Jonathan for his successful directorship of PIN. Student participation in PIN reached a high of 185 and faculty membership reached 190 during Jonathan's tenure as Director of PIN. Jonathan started the highly successful high school Brain Bee event and was able to add a part time administrator for the Program, despite often difficult fiscal times during the years of his directorship. Members of PIN have greatly benefitted from Jonathan's administration of the largest collaborative program at the University of Toronto. We look forward to Jonathan's continued involvement in PIN.

The new Director of PIN is Dr. David R. Hampson, Professor, Department of Pharmaceutical Sciences, Leslie Dan Faculty of Pharmacy, who has also assumed the position of Associate Director of UTNP.

In accordance with recommendations of the Faculty of Medicine, the UTNP will provide academic leadership to PIN and will report to the Vice Dean Graduate Affairs in the Faculty of Medicine for these responsibilities including periodic reviews by the school of graduate studies and the Ontario Council of Graduate Studies.

UTNP Reception at the upcoming SFN-2008 meeting in Washington:

The University of Toronto Neuroscience Program will be hosting a reception for UofT attendees of the SFN meeting.

Place: JW Marriott Hotel, State Room

Time: Nov 16 from 6:30 to 8:30 pm

All attendees from UofT and it's affiliated organizations are invited.

Details:

http://www.sfn.org/am2008/index.cfm?pagename=satellite_indexlistin g

NEW PIN STUDENTS:

We would like to welcome the following students to the Neuroscience Program:

Student's Name	Degree	Supervisor	Department
Brooke Acton	MSc	Melanie Woodin	Cell & Sys. Bio.
Daniel Adusei	MSc	David R. Hampson	Pharm. Sci.
Ishraq Alim	PhD	Michael Tymianski	Physiology
Andrew Barszczyk	MSc	Michael Tymianski	Physiology
Maria Brunello	MSc	Jonathan Dostrovsky	Physiology
Robert Chen	MSc	Mount/Tandon	Physiology
Meaghan Creed	PhD	Jose Nobrega	Pharmacology
Adrienne Elbert	MSc	Cathy Barr	IMS
Joseph Findlater	MSc	Janice Robertson	Lab. Med. Path.
Karina Goncharenko	MSc	Michael Fehlings	Physiology
Keith Ho	MSc	Howard Mount	Physiology
Wojciech Kostelecki	MSc	J.L. Perez Velazquez	IMS
Aqsa Malik	MSc	Les Buck	Cell & Sys. Bio.
Sarah Mathewson	MA	Paul Fletcher	Psychology
Michelle McFarlane	MSc	Carol Westall	IMS
Adrian Nahirny	MSc	Linda Mills	Physiology
Tiffany Ng	MSc	David Lovejoy	Cell & Sys. Bio.
Dung Hoang Nguyen	MSc	Michael Fehlings	IMS
Eliane Proulx	PhD	Evelyn Lambe	Physiology
Taylor Schmitz	PhD	Anderson/De Rosa	Psychology
Xing Sun	MSc	Robert Chen	IMS
David Wasserman	MA	John Yeomans	Psychology
Paul Whissell	MSc	Beverly Orser	IMS

GRADUATING STUDENTS:

We would like to congratulate the following PIN graduates:

Student's Name	Degree	Supervisor	Department
Ting-Chieh Chou	MSc	Shuzo Sugita	Physiology
<u>Thesis title:</u> "Roles of syntaxin isoforms in dense core vesicle fusion"			

Giannina Descalzi MSc Robert Chen IMS
Thesis title: "Cortical Representation of Lower Facial and Masticatory Muscles"

Hwa-Lin Hsiang MSc Sheena Josselyn IMS
Thesis title: "Acutely increasing alpha-CaMKII into Lateral Amygdala enhances fear conditioning memory"

Kristin Johnson MSc Martin Wojtowicz Physiology
Thesis title: "The relationship between adult hippocampal neurogenesis and spatial learning and memory in natural populations of food-storing red squirrels (*Tamiasciurus hudsonicus*)"

Veronique Kena-Cohen MSc Lyanne Schlichter Physiology
Thesis title: "Defining a physiological model of classical activation in microglia"

Scott Young PhD Tom Chau IBBME
Thesis title: "Visual Discrimination of Speed-Accuracy Tradeoffs"

UPCOMING PIN DISTINGUISHED LECTURES – FALL 2008

Please check <http://www.utoronto.ca/neurosci> for updates.

Friday, October 17, 2008 1pm

GEORGE RICHERSON, Department of Neurology, Yale University, New Haven, CT
"Serotonin neurons, breathing and arousal: Implications for sudden infant death syndrome"
Medical Sciences Building, Rm 2172

Wednesday, November 5, 2008 12pm

HELEN NEVILLE, Department of Psychology, University of Oregon, Eugene, OR
"Experience (and Genes) Shape Human Brain Development and Function"
Medical Sciences Building, Rm 3153

FACULTY NEWS

This summer, PIN faculty member **Dr. Evelyn Lambe** received the Daniel X. Freedman award from NARSAD, a leading U.S. charity for research on mental illnesses. The award is given for outstanding basic science research by a young investigator.

Also, **Dr. Evelyn Lambe's** research paper has also just appeared in **The Journal of Neuroscience**, "Developmental excitation of corticothalamic neurons by nicotinic acetylcholine receptors". The Journal of Neuroscience, August 27, 2008, 28(35):8756-8764; doi:10.1523/JNEUROSCI.2645-08.2008
<http://www.jneurosci.org/cgi/content/full/28/35/8756>

Congratulations to PIN faculty member **Dr. Lyanne Schlichter** who was selected by the Heart and Stroke Foundation of Ontario as the recipient of the Rick Gallop Award for the fiscal year 2008/2009. The award honours Mr. Gallop, a former CEO of the Heart and Stroke Foundation of Ontario for his 16 years of service and leadership, integrity, vision and strategic abilities that he demonstrated during his tenure with the Foundation. The award will

be presented to Lyanne at the HSFO's Annual Meeting in November.
from Physiolink, September 5, 2008

We are pleased to announce that **Dr. Joanne Nash** from the Department of Cell & Systems Biology has joined the PIN faculty.

Dr. Nash's research interests:

My research interests are focussed on understanding the cell and molecular mechanisms underlying neurodegeneration and symptoms of Parkinson's disease. The ultimate goal of this research is to develop more effective treatments for Parkinson's disease. In Parkinson's disease, cell death involves multiple sub-cellular mechanisms, which synergise. We are using high throughput screening and real-time imaging to identify exactly how these mechanisms interact, so that molecular targets to prevent neuronal cell death might be identified. Symptoms of Parkinson's disease are caused by synaptic re-organisation as well as pathological changes in synaptic plasticity within the striatum. Research in the lab is focussed on characterising striatal protein complexes, and how their distribution and function change in rodent models of Parkinson's disease. Once abnormal proteins have been identified, rodent models of Parkinson's disease are genetically manipulated. Electrophysiology, real-time imaging and behavioural assessment is then used to determine whether these genetic manipulations alleviate symptoms.

Dr. Nash can be reached at the Centre for Neurobiology of Stress, Department of Biological Sciences, University of Toronto at Scarborough, 1265 Military Trail, Toronto, ON, Canada, M1C 1A4. Tel: 416-287-7445; Fax: 416-287-7676; e-mail address: jnash@utsc.utoronto.ca.

NOTICE TO GRADUATING STUDENTS

Please notify the PIN office upon your graduation to ensure that you will receive the notation "completed Collaborative Program in Neuroscience" on your degree transcript as well as a separate certificate suitable for framing from the PIN office to indicate that you have completed the program's requirements. Please let the office know the address you wish your certificate sent to and please also send us your thesis title. If you have transferred from a Master's degree to a Ph.D., please notify the PIN office.

OTHER NEUROSCIENCE NEWS

**Neurosciences & Mental Health (NMH) Research Program at The Hospital for Sick Children presents:
Neurobiology and Disease
- Not Immune to New Influences**

Friday, October 3, 2008
Hollywood Theatre (SickKids Auditorium)
Rm 1246 – Elm Wing, 555 University Ave

8:30 am – 8:55 am Coffee Break in the Rotunda

8:55 am – 9:00 am Welcome by **Michael Salter, MD, PhD & Brenda Banwell, MD**

9:00 am – 9:50 am
"Rational targeted therapies affecting CNS demyelinating disease in mouse models of multiple sclerosis"
Fabrizio Mastronardi, PhD Molecular Structure & Function

9:50 am – 10:20 am
"Sensory Neurons Control Diabetic Islet Inflammation"
Michael Salter, MD, PhD Neurosciences & Mental Health

10:20 am – 10:40 am Coffee Break in the Rotunda

10:40 am – 11:10 am
"Neuroimmune interactions following peripheral nerve injury in neonatal rats"
Simon Beggs, PhD Neurosciences & Mental Health

11:10 am – 11:40 am
"Environmental Influences on Host Immune Responses in Childhood Multiple Sclerosis"
Brenda Banwell, MD Neurosciences & Mental Health
Director of Multiple Sclerosis Clinic

11:40 am – 12:30 pm "The role of inflammation in ALS and development of an immunotherapy"
Jean-Pierre Julien, PhD
Professor, Department of Neuroscience, School of Medicine, Université of Laval, Quebec

12:30 pm – 1:30 pm Lunch in the Garden Terrace, Atrium, The Hospital for Sick Children

Please contact Sharon Quilop to **RSVP by September 30, 2008**
Phone: (416) 813-5756 Email: nmh.events@sickkids.ca

**From Science To Practice And Back: Mechanisms Of Change In Developmental Psychopathology
Friday, October 17th, 2008
Sutton Place, Toronto, Canada**

Approximately half of all referrals to children's mental health agencies are for oppositional, aggressive and/or antisocial behaviours and most of these children are also comorbid for internalizing problems as well (e.g. depression, anxiety). Without intervention, the stability of psychopathology across the lifespan has been well established. Identifying effective prevention and intervention programs for high- risk children has been a top priority for decades. Indeed, a great deal of progress has been made in identifying a handful of "evidence-based" treatments. These treatment programs have repeatedly shown reasonable effects in randomized controlled trials. Despite these promising results, however, there remains enormous variability in treatment outcomes, and effect sizes are generally moderate. In order to understand how treatments work and for whom they are most effective, a better understanding of the mechanisms of developmental psychopathology and the change processes responsible for successful interventions is critical.

The research programs that will be highlighted in this conference have the collective goal of identifying the psychosocial and biological mechanisms that underpin the development of psychopathology and how changes in these mechanisms may lead to successful outcomes for youths and their families.

Keynote Speakers include:

- Dr. Stephen Hinshaw, Berkeley University
- Dr. Ronald Dahl, University of Pittsburgh
- Dr. Thomas Dishion, University of Oregon
- Dr. Rutger Engels, Radboud University, Netherlands
- Dr. Candice Odgers, University of California, Irvine
- Dr. Christopher Lalonde, University of Victoria
- Dr. Brooke Molina, University of Pittsburgh
- Dr. Isabela Granic, Hospital for Sick Children & University of Toronto

REGISTER NOW!

To register and for more information visit: www.chsrgevents.ca or contact Sarah Bovaird at sarah.bovaird@sickkids.ca. This symposium is part of a series brought to you by The Community Health Systems Resource Group at The Hospital for Sick Children focusing on "collaborative community research as a systemic approach to changing front-line practice"

The Montreal Neurological Institute and Hospital presents "Epilepsy at the Cutting Edge"

October 23-25, 2008

A symposium to honour Fred and Eva Andermann at the Montreal Neurological Institute and Hospital, McGill University, 3801 University Street, Montreal, Quebec, Canada.

Please join us to honour Fred and Eva Andermann at the symposium, Epilepsy at the Cutting Edge, on October 23-25, 2008. This important symposium will feature talks by more than 40 international experts. Friends, former MNI fellows and colleagues will discuss advances in epilepsy research, and celebrate the Andermanns' many achievements.

To view the scientific program, to register for the symposium and banquet, and to find preferred hotels in Montreal, please go to <http://apps.mni.mcgill.ca/andermann/>. For other information, please contact Debbie Rashcovsky at 514-398-6047 or deborah.rashcovsky@mcgill.ca

University Health Network Presents: 5th Annual Krembil Neuroscience Symposium November 13 & 14, 2008 Toronto, Canada "Past, Present & Future"

The 5th Annual Krembil Neuroscience Symposium will be taking place on November 13 & 14, 2008 at the Chestnut Residence in Toronto, Canada. We have a fantastic program to share with you this year.

The conference will once again provide a forum for health care professionals caring for individuals with neurological and neurosurgical pathologies, an opportunity to gain new knowledge and insight into the management of a very complex patient population.

This year we are excited to offer an online option for registration. Please visit our website for information on the conference including the program and registration form. Feel free to distribute the information to anyone who might be interested in attending.

For further information, see the website:

<http://www.uhn.ca/KrembilSymposium2008.asp>

Glial Biology in Medicine Conference Center for Glial Biology in Medicine University of Alabama at Birmingham November 30 – December 2, 2008

Thematic Sessions:

Glial Neuronal Interactions; Glia and CNS Inflammation; and Glia and Neurological Disease.

Registration at www.glia.uab.edu

9th International Conference AD/PD 2009 Prague, Czech Republic, March 11-15, 2009 Alzheimer's and Parkinson's Diseases: Advances, Concepts and New Challenges

AD/PD Conference is a biennial international meeting of professionals and young investigators in the fields of Alzheimer's disease (AD), Parkinson's disease (PD) and the integration of related neurodegenerative diseases.

Stretch the limits of your knowledge at the 9th International Conference for AD/PD entitled "Alzheimer's and Parkinson's Diseases: Advances, Concepts and New Challenges". AD/PD will take place in Prague, Czech Republic, March 11-15, 2009.

The 2009 conference provides a unique platform for featuring the most recent methodologies and research with a focus on opportunities for young investigators, including presentation of awards.

For more information please go to:

<http://www2.kenes.com/adpd/Pages/home.aspx>

NeuroStereology Workshop Marine Biological Laboratory (MBL), Woods Hole, Massachusetts April 4 to April 9, 2009

In 2009, the NeuroStereology Workshop will be a special topics course at the Marine Biological Laboratory (MBL), Woods Hole, Massachusetts, from April 4 to April 9, 2009. The goal of the

workshop is to teach a small group of research scientists how to design, supervise, and critically evaluate stereological studies of the nervous system. For more information, visit our web-site: www.neurostereology.info or e-mail ignitemg@mail.dk

XVII WFN Congress on Parkinson's Disease and Related Disorders December 13-16, 2009

In 2009 we are going to celebrate half a century as a leading international summit for clinicians, researchers, and allied healthcare professionals worldwide, seeking real solutions to improve the long-term outcomes for patients with Parkinson and related movement disorders.

The Congress will be held in beautiful Miami Beach, where you can soak up the sun and enjoy ideal temperatures at this time of the year.

To join the mailing list to receive the latest Congress updates please go to: <https://www.kenes.com/mailing/parkinson/?ref4=db1>

POSITIONS AVAILABLE

USA

FACULTY POSITIONS

McGovern Institute For Brain Research, MIT

The McGovern Institute for Brain Research at MIT is seeking two faculty members at the Assistant Professor, Associate Professor or Professor level. The McGovern Institute's general focus is in systems neuroscience with an emphasis on the neural basis of perception, cognition, and action. We are seeking two candidates with a research focus in any of these three areas, one using human subjects and the other using animal models. We would regard it as a plus if the candidate's work bridges levels using a variety of tools and/or the candidate were interested in translating basic research findings into new ideas for studying the pathophysiology or treatment of brain disorders.

The mission of the McGovern Institute is to understand the relationship of neuronal processes, circuits and computations to behavior, ultimately providing benefits to human health and welfare. Research in the McGovern Institute is expected to help people with brain disorders ranging from sensory system impairments to movement disorders and emotional and cognitive disorders. McGovern Institute scientists have many opportunities for collaboration in a diverse and cutting-edge environment. In the fall of 2005, the Institute moved to occupy a new building, which includes a brain imaging center for human subjects and animals. McGovern Institute members are appointed through an MIT department and will have teaching responsibilities for their home department.

Applicants should submit a curriculum vitae, a summary of current and proposed research programs, a publication list, and should arrange for three letters of recommendation to be sent electronically (preferably PDF) to the McGovern Institute Search Committee, at the following email address: McGovernInstituteSearch@mit.edu. Please indicate which of the two positions you are applying for in your cover letter. Consideration of applications will begin on October 1, 2008 and will continue until the positions are filled. For more information on the McGovern Institute please visit our website at <http://web.mit.edu/mcgovern>.

MIT is an Affirmative Action/Equal Opportunity Employer. Qualified women and minority candidates are especially encouraged to apply.

ASSISTANT PROFESSOR

Oberlin College Oberlin, Ohio

The Neuroscience Department at Oberlin College invites applications for a full-time continuing faculty position in the College of Arts and Sciences. Initial appointment to this position will be for a term of 4 years, beginning first semester of 2009-10, and will carry the rank of Assistant Professor.

The incumbent will be expected to contribute to the Department's introductory neuroscience course and its accompanying lab. Other teaching may include up to two upper-level lecture courses consistent with the candidate's interests and qualifications, an accompanying upper-level laboratory course, and a first year seminar.

The Department seeks applicants with expertise in neuropharmacology. Candidates able to apply a variety of approaches (molecular, physiological, pharmacological and behavioral) to understanding functional systems and behavior or to understanding disease-related processes are particularly encouraged to apply. The candidate will be expected to take on the normal responsibilities of all faculty members including establishing a research program, mentoring undergraduate research, and advising. This is an exceptional opportunity to become a teacher-scholar at a premier liberal arts college.

Among the qualifications required for appointment is the Ph.D. degree (in hand or expected by July 1, 2009). Candidates must demonstrate interest and potential excellence in undergraduate teaching. Postdoctoral research experience and college-level teaching experience are both highly desirable.

The Neuroscience Department at Oberlin College is one of the oldest and largest undergraduate neuroscience departments in the country. The Department's extensive labs and facilities are housed in the College's newly built science center. The Department emphasizes a broad interdisciplinary approach and encourages students to seek out research opportunities in both laboratory classes and in independent research.

To be assured of consideration, letters of application, including a curriculum vitae, graduate academic transcripts, and at least three letters of reference, should be sent to Catherine McCormick, Chair, Neuroscience Department, 119 Woodland Ave., Oberlin College, Oberlin, Ohio, 44074 by October 17, 2008. Application materials received after that date may be considered until the position is filled. Salary will depend on qualifications and experience.

Oberlin College is an Equal Opportunity/Affirmative Action Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect of differences based on gender, ethnicity, disability, sexual orientation and gender identity and expression. Oberlin was the first coeducational institution to grant bachelor's degrees to women and historically has been a leader in the education of African Americans; the college was also among the first to prohibit discrimination based on sexual orientation. In that spirit, we are particularly interested in receiving applications from individuals who would contribute to the diversity of our faculty.

Visit Oberlin College on the World Wide Web at www.oberlin.edu.

POSTDOCTORAL POSITION

The Molecular & Behavioral Neuroscience Institute University Of Michigan

Postdoctoral position in the Molecular & Behavioral Neuroscience Institute at the University of Michigan is open immediately as part of a 5 year NIA funded research program to study the how L-type calcium channels mediate age-related changes in neuronal excitability and cognition. The laboratory uses a multidisciplinary approach that utilizes aspects of molecular genetics, behavioral neuroscience and electrophysiology. Currently we are making/using transgenic mouse models to address a number of questions regarding the role that voltage-gated ion channels play in shaping neuronal function and ultimately the influence that they exert upon complex behavior. Successful applicants must have a recent Ph.D. or M.D. degree and will have had extensive training in electrophysiology (preferably using an in vitro slice preparation) and an interest in expanding their training into at least one of two additional research domains (i.e. either molecular genetics or behavioral neuroscience). Please send CV, brief description of research interests and complete contact information for three references to Dr. Geoffrey G. Murphy (murphyg@umich.edu).