

NEUROSCIENCE NEWSLETTER

PROGRAM NEWS

NEW PIN STUDENT:

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

Student's Name	Degree	Supervisor	Department
Tina Elahipanah	MSc	Ze'ev Seltzer	Physiology

GRADUATING STUDENTS:

We would like to congratulate the following PIN graduates:

Student's Name	Degree	Supervisor	Department
Michalakis Michael	PhD	N. William Milgram	Psychology
<u>Thesis title:</u> "Hippocampal Regulation of Intraprefrontal Plasticity in the Freely Moving Rat"			
David Seminowicz	PhD	Karen Davis	IMS
<u>Thesis title:</u> "Functional MRI Studies of Pain and Cognition Interactions"			
Eva-Maria Svoboda	PhD	Brian Levine	Psychology
<u>Thesis title:</u> "The functional neuroanatomy of autobiographical memory"			

UPCOMING PIN DISTINGUISHED LECTURES

Monday, January 22, 2007 4pm

ANDREA VOLTERRA, Director, Département de Biologie Cellulaire et de Morphologie (DBCM), Faculté de Biologie et de Médecine, Université de Lausanne, Switzerland
"Glutamate exocytosis from astrocytes: role in synaptic functions and alterations in brain pathologies"
Pharmacy Building, 144 College St., Rm B250

Friday, March 2, 2007 3pm

GYORGY BUZSAKI, Center for Molecular and Behavioral Neuroscience, Rutgers University
Title: TBA
Pharmacy Building, 144 College St., Rm B250

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Program Committee Members

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

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: Wednesdays - 1:15pm-5:00pm;

Thursdays - 8:45am-5:00pm; Fridays - 8:45am-5:00pm

Wednesday, April 4, 2007 4pm

MICHAEL YOUNG, Harvard Medical School, Boston, MA

Title: TBA

Medical Sciences Building, Rm 3153 (note room change)

PIN FACULTY NEWS

New Faculty

We are pleased to announce that **Dr. Michelle Aarts** of the Department of Cell and Systems Biology has joined the PIN faculty.

Dr. Aarts is a Tier II Canada Research Chair in Signal Transduction in Ischemia. Dr. Aarts' general research interests lie in the cellular communication pathways that influence cell death and survival in complex tissues such as the brain following periods of ischemic stress (stroke or heart attack). Of particular interest are signal transduction pathways activated downstream of plasma membrane cation channels including glutamate receptors, transient receptor potential (TRP) channels and tissue-specific kinases. Dr. Aarts' laboratory research uses a multidisciplinary approach from

molecular biology and proteomics to cellular and animal models of disease in order to gain information about key cell death pathways and their potential for therapeutic intervention.

Dr. Aarts can be contacted at: SW525, University of Toronto at Scarborough, 1265 Military Trail, Scarborough, Ontario, M1C 1A4.
Tel: 416-287-7405; Fax: 416-287-7642; e-mail address: maarts@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

Paediatric Stroke Symposium: Management of Paediatric Stroke Hospital for Sick Children

Monday, January 29, 2007
8 a.m. - 4 p.m.
Main Auditorium, First Floor, SickKids

This symposium is designed to provide up-to-date information on the management of paediatric stroke from a multidisciplinary perspective. It is designed for physicians, nurses, physiotherapists, occupational therapists, and allied health care professionals that work with children.

Objectives

- Participants will have more information on ongoing paediatric stroke management after the acute phase (after the initial 24 hours).
- Participants will become aware of the role of the multidisciplinary care needs of children who have had a stroke.
- Participants will be able to the new knowledge gained by means of interactive case studies and the audience response system.

Please register by **Friday, January 19, 2007**
E-mail sandi.ricardez@sickkids.ca
Phone 416-813-4996

9th International Neuroscience Winter Conference March 24-29, 2007 Sölden, Austria

Keynote Lectures:

Tamas Freund (Hungary): Endocannabinoid signaling in hippocampus
Istvan Mody (USA): Tonic GABAergic inhibition in the crosshairs of hormones and ethanol

Monica Di Luca (Italy): Pharmacology & neurobiology of Alzheimer's disease
Rüdiger Klein (Germany): Mechanisms of axon guidance
Amiram Grinvald (Israel): Functional imaging of cortical dynamics
Peter Jonas (Germany): Hippocampal interneuron oscillations
Reinhard Jahn (Germany): SNAREs in presynaptic function
Larry Benowitz (USA): Rewiring the injured CNS: Novel growth factors, signaling pathways, and combinatorial treatments

For further information, online registration and hotel reservation at the conference venue please visit <http://inwc.sambax.com/>

NeuroStereology Workshop Marine Biological Laboratory (MBL), Woods Hole, Massachusetts April 14 - 19, 2007

In 2007, the NeuroStereology Workshop will be a special topics course at the Marine Biological Laboratory (MBL), Woods Hole, Massachusetts, from April 14 to April 19, 2007. 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 the web-site: www.neurostereology.info or e-mail ignitemg@mail.dk

University of Wisconsin – Madison Thirteenth Annual Wisconsin Symposium on Emotion April 26 – 27, 2007

Mark your calendar and inform colleagues, students, residents and trainees about the University of Wisconsin – Madison's thirteenth annual Wisconsin Symposium on Emotion, April 26 – 27, 2007. The topic for 2007 will be Risk, Resilience and Psychopathology. The 2007 symposium will again feature an outstanding lineup of some of the world's leading scientists in the field of affective neuroscience, including Ahmad Hariri (Pittsburgh), Daniel Kahneman (Princeton), Ellen Leibenluft (NIMH), David Lyons (Stanford), Earl Miller (MIT), Nora Volkow (NIDA), Jay Weiss (Emory).

Travel Award Program

The HealthEmotions Research Institute will again offer up to 85 generous travel awards to graduate and undergraduate students, medical residents and postdoctoral trainees from across the United States, Canada and abroad. Look for complete details on the HealthEmotions Research Institute website in early January (www.healthemotions.org).

POSITIONS AVAILABLE

ASSISTANT PROFESSORS

**Department of Anatomy and Cell Biology
University of Western Ontario**

The University of Western Ontario - The Department of Anatomy and Cell Biology in the Schulich School of Medicine & Dentistry at The University of Western Ontario invites applications for a probationary (tenure-track) faculty member at the rank of Assistant Professor in the area of Neuroscience. Currently, the department is undergoing expansion and growth in neuroscience research; existing areas of interest include addiction, schizophrenia, emotional learning, circadian neurobiology, and neuroendocrinology. In addition, research interests within the department in cell biology include gap junctions and cell-cell interactions, cardiovascular disease and vascular biology, and cancer cell biology. Candidates are expected to have an outstanding record of research and publication and will be expected to maintain an ongoing vigorous and externally funded research program. The candidate will also have a commitment to and demonstrated aptitude for teaching and will be expected to teach and to supervise graduate students. The successful candidate will have access to newly renovated laboratory space and over \$2.5 million in CFI/OIT infrastructure equipment dedicated to advanced cell imaging and analysis. Candidates must hold a doctoral degree and have appropriate postdoctoral training. Applications will be accepted until this position is filled. Interested applicants should submit a curriculum vitae, a short statement of research interests and future directions, and the names of three referees to: Dr. Lique Coolen, Chair, Search Committee, Department of Anatomy and Cell Biology, Medical Science Building, University of Western Ontario, London, Ontario, Canada, N6A 5C1; Lique.Coolen@schulich.uwo.ca. For more information about the department, please visit: <http://www.uwo.ca/anatomy>. The position is subject to budget approval. Applicants should have fluent written and oral communication skills in English. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The University of Western Ontario is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people and persons with disabilities.

Department of Physiology Queen's University

The Department of Physiology website: <http://meds.queensu.ca/medicine/physiol/> invites applications for a tenure-track position at the Assistant Professor level. The Department has a highly successful interdisciplinary research program with foci in cardiorespiratory-, neuro- and gastrointestinal-science. The successful candidate will hold a PhD, MD or equivalent, and demonstrate outstanding scholarship and achievement through publications. The potential to attract external peer-reviewed support will be expected.

The research interests of the candidate should build on the current strengths of the Department in the Cardiac Circulatory and Respiratory Research Program (Heart failure, Cardiorespiratory disease) or the Centre for Neuroscience Studies (Cellular/molecular neuroscience, Neurobiology of obesity). The candidate will be expected to be an excellent communicator who will contribute to the educational programs of the department within the medical curriculum, graduate program and/or the undergraduate Life Sciences program.

Queen's University is located in the historic city of Kingston, Ontario bordered by Lake Ontario, the St. Lawrence River and the Rideau Canal. Queen's is a leading research intensive university with a

vibrant academic community that includes 17 Faculties and Schools and over 16,000 students.

Academic rank and salary will be commensurate with qualifications and experience. Faculty members at Queen's are governed by a collective agreement between the Queen's University Faculty Association and the University, and is posted at www.queensu.ca/qufa.

The University invites applications from all qualified individuals; however, Canadian citizens and permanent residents will be given priority. Queen's is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, aboriginal people, persons with disabilities, and persons of any sexual orientation or gender identity.

Applicants should forward a copy of their curriculum vitae, a description of their research interests, a teaching dossier, and the names of three references to: Dr. A.V. Ferguson, Professor and Head, Department of Physiology, Queen's University, Kingston, ON, Canada, K7L 3N6. Review of applications will commence on March 1, 2007 and continue until the position is filled.

POSTDOCTORAL POSITIONS

Department of Pharmaceutical Sciences University of Toronto

Fragile X syndrome is the most common inherited form of mental impairment and developmental disability. It is an X-linked, single gene defect of the FMR1 gene that affects 1 in 2000 males and 1 in 4000 females. Fragile X Syndrome is caused by an Xlinked, single gene defect involving an extensive amplification of a d(CGG)n trinucleotide repeat region in the 5' untranslated region of the gene. The resultant phenotype is caused by the absence of its protein product, the Fragile X Mental Retardation Protein (FMRP), in the cytoplasm of neurons. FMRP appears to have an important function at synapses of brain regions involved in learning and memory. FMRP is an mRNA binding protein that is associated with polyribosomes and is believed to be important in the regulation of protein synthesis beneath synapses by providing a local source of newly synthesized proteins needed for synaptic functions. FMRP has also been shown to play an important role in neuronal development by regulating dendritic spine growth and pruning.

The project will involve a combination of both basic studies on FMRP, and novel drug treatments in the mouse model (knockout) of Fragile X syndrome. The latter will encompass the analysis of novel metabotropic glutamate receptors ligands in the mouse model and entail the use of molecular, cellular, and anatomical techniques. Our laboratory is located in the new Leslie Dan Faculty of Pharmacy, a \$75M research facility opened in September of 2006. Recent Ph.D. graduates (2005 or 2006) with a background in biochemistry, pharmacology, neuroscience, and/or molecular biology are encouraged to **apply as soon as possible**.

For more information, contact: Dr. David R. Hampson, Professor, Dept. of Pharmaceutical Sciences, University of Toronto

Email: d.hampson@utoronto.ca
http://www.pharmacy.utoronto.ca/graduate/faculty/hampson.jsp

Postdoctoral Position in Neuroscience, Channel Biochemistry and Cell Death (Spring 2007)

**The Centre for the Neurobiology of Stress
University of Toronto, Scarborough**

This is a 3-yr position to study signal transduction from neuronal cation channels and their role in neurodegenerative disease. Successful candidates will be an integral part of the research in the multi-million dollar Centre for the Neurobiology of Stress at the University of Toronto, Scarborough. General research interests lie in the cellular communication pathways that influence cell death and survival in complex tissues following periods of ischemic stress (stroke or heart attack). Of particular interest are signal transduction pathways downstream of plasma membrane calcium channels including glutamate receptors, transient receptor potential (TRP) channels. We are also investigating the role of tissue-specific kinases in cell death following stress injuries. Laboratory research uses a multidisciplinary approach from molecular biology and proteomics to cellular and animal models of disease in order to gain information about key cell death pathways. The candidate will be expected to participate in planning and intellectual development of projects, and will use multidisciplinary approaches to satisfy research objectives. Members of the laboratory are also expected to contribute to training of junior personnel and build collaborations wherever necessary to expand knowledge and technical expertise.

Preference will be given to highly motivated postdoctoral candidates with a background in neurophysiology, neuropharmacology, or neuroscience. Experience with electrophysiological recording methods or single cell imaging is desirable however candidates with advanced imaging or animal neurosurgery experience will also be considered. Opportunities to participate in other research projects using confocal imaging, molecular biology and proteomics also exist. Stipend will be in the range of CIHR postdoctoral stipends. The University of Toronto, Scarborough is a vibrant and multicultural institution with a wealth of neuroscience funding and expertise. Candidates should send curriculum vitae and the names of three references to: Michelle Aarts, Ph.D., Assistant Professor, Life Sciences, The Centre for the Neurobiology of Stress, University of Toronto, Scarborough, 1265 Military Trail, Scarborough, Ontario. M1C 1A4. (416) 287-7405
maarts@utsc.utoronto.ca; www.utsc.utoronto.ca/~cns/aarts

GRADUATE POSITIONS

Graduate Positions in Neuroscience, Channel Biochemistry and Cell Death

Dr. Michelle Aarts is currently seeking motivated students for Graduate Studies at the University of Toronto, Scarborough in the multi-million dollar Centre for the Neurobiology of Stress. Dr. Aarts' general research interests lie in the cellular communication pathways that influence cell death and survival in complex tissues following periods of ischemic stress (stroke or heart attack). Of particular interest are signal transduction pathways downstream of plasma membrane calcium channels including glutamate receptors, transient

receptor potential (TRP) channels. We are also investigating the role of tissue-specific kinases in cell death following stress injuries. Dr. Aarts' laboratory research uses a multidisciplinary approach from molecular biology and proteomics to cellular and animal models of disease in order to gain information about key cell death pathways.

There are currently funded positions for Ph.D. students beginning in January, June and September 2007. Students with an excellent academic record and experience in neuroscience, molecular biology, biochemistry or physiology who are competitive for scholarships will be given priority. Students will be appointed in the graduate Department of Cell and Systems Biology at U of T. Please contact Dr. Aarts or the department to apply: Michelle Aarts, Ph.D., Assistant Professor, Life Sciences, University of Toronto, Scarborough, 1265 Military Trail, Scarborough, Ontario. M1C 1A4. (416) 287-7405

maarts@utsc.utoronto.ca; www.utsc.utoronto.ca/~cns/aarts,
OR Cell and Systems Biology, University of Toronto, Department of Cell & Systems Biology, 25 Harbord Street., Toronto, Ontario. Canada M5S 3G5. (416) 978-3477. grad@zoo.utoronto.ca, www.csb.utoronto.ca/index.cfm

SUMMER POSITION WANTED

Bruce Doré -- I'm interested in a summer research position in the U of T Neuroscience Program. I am currently in my third year of the B.Sc. Psychology (with Neuroscience minor) program at the University of Guelph. My cumulative average is 92.5%; I have been the recipient of numerous awards and scholarships for academic excellence, and have taken upper level courses in biophysics, biochemistry, physiology, neuroscience, and research methods. Currently, I am engaged in a project with Dr. Linda Parker investigating the effect of cannabinoids in interfering with the expression of conditioned nausea in rats. I'm gaining experience in tissue collection, injections, behavioural observations, and digital video scoring (Noldus). I also have extensive clinical experience in data collection, observation, and interaction with humans with autism and other developmental disabilities. In short, I am an extremely motivated aspiring researcher. Contact me via email: bdor@uoguelph.ca.