University of Toronto Neuroscience Program

NEUROSCIENCE NEWSLETTER

Volume 25 Number 3 November 2008

PROGRAM NEWS

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_indexlisting

Program Committee Members

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

NEW PIN STUDENTS:

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

Student's Name	Degree	Supervisor	Department
Evelyn Forster	PhD	Kevin Dunbar	Psychology
Monika Janus	MA	Marc Lewis	HDAP
Ashlin Kanawaty	PhD	Jeff Henderson	Pharm. Sci.
Hyunhee Kim	MSc	Elise Stanley	Physiology
Yuko Koshimori	MSc	Robin Green	Rehab. Science
Nicole Law	MA	Donald Mabbott	Psychology
Zhong Xu Liu	MA	Marc Lewis	HDAP
Emma McIlveen-Brown	MA	Rosemary Tannock	HDAP
Cristina Saverino	MA	Cheryl Grady	Psychology
Catherine Vincent	MSc	Lyanne Schlichter	Physiology
Kuang Da Zhu	MA	Claude Alain	Psychology
Agnieszka Zurek	MSc	Beverley Orser	Physiology

GRADUATING STUDENTS:

We would like to congratulate the following PIN graduates:

Student's Name	Degree	Supervisor	Department
L. Kaufman Simpkins	MSc	Sandra Black	IMS

Thesis title: "Antisaccades: A Probe Into The Dorsolateral Prefrontal Cortex in Alzheimer's Disease"

Elan l. Ohayon	PhD	Kwan/ Burnham	IMS

Thesis title: "Architectures of Activity: Network Structure and Neural Dynamics from Epilepsy to Autonomous Action"

Vasan Persad	PhD	O.Carter Snead	IMS

Thesis title: "The Role of Sex Hormones on Atypical Absence Seizures"

UPCOMING PIN DISTINGUISHED LECTURES – FALL 2008

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

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

HONOURS & AWARDS

UTNP/PIN faculty member **Dr. John F. MacDonald** is the recipient of this year's Paul Morley Mentorship Award from the Canadian Stroke Network (CSN). This award recognizes Dr. MacDonald's outstanding contributions to training the next generation of stroke scientists. The award was presented to Dr. MacDonald at last month's CSN annual meeting.

from Physiolink, October 21, 2008

NEW FACULTY

We are pleased to announce that **Dr. Cathy L. Barr** from the Institute of Medical Science and **Dr. Donald J. Mabbott** from the Department of Psychology have joined the UTNP/PIN faculty.

Dr. Barr's research interests:

The focus of my research is the genetic study of behaviour, specific aspects of cognition, and psychiatric and neurological disorders for which a genetic predisposition has been established, including attention-deficit hyperactivity disorder, childhood-onset anxiety disorders, childhood-onset depression, reading disabilities, and Tourette Syndrome. Our genetic studies originally focused on clinical samples but we have now extended our research to investigate relevant behavioural and cognitive phenotypes in the general population. For example, we are examining cognitive traits in general population samples (learning and memory, rapid automatized naming, a reading related skill), and population-based twin studies of behaviour and cognitive traits.

Dr. Barr can be reached at: Toronto Western Hospital, 399 Bathurst Street, MP 14-302, Toronto, ON M5T 2S8. Tel: 416-603-5800 ext. 2744; Fax: 416-603-5126; e-mail: cbarr@uhnres.utoronto.ca

Dr. Mabbott's research interests:

I am evaluating brain/behavior relations in normal and impaired neurodevelopment using cognitive data and quantitative MRI methods.
Currently, I am examining neurocognitive outcome following diagnosis and treatment with radiation for brain tumors: cranial radiation is associated with intellectual decline.

Specific objectives of my program include: (a) to determine whether the use of lower doses and/or focal fields of radiotherapy significantly reduce neurocognitive late effects, (b) to examine processing speed, attention, and working memory to determine if deficits in these core neurocognitive domains underline the decline in intelligence. I am also examining the relations between white matter integrity and neurobehavioral functioning using Diffusion Tensor MRI. Specifically, my goal is to determine whether quantitative DT-MRI values within regions of interest in the brain are related to neurocognitive outcome. Using MRI imaging methods to identify changes in the brain that are predictive of later neuropsychologic toxicity may make it possible to modify treatment among patients at risk, perhaps avoiding severe sequelae. Further, determining the underlying causes of the decline in intelligence associated the treatment is necessary for developing appropriate and effective rehabilitation programs to mediate the effects of neurocognitive effects and improve quality of life.

Dr. Mabbott can be reached at: Department of Psychology, Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, M5G 1X8. Tel: 416-813-8875; Fax: 416-813-8024; e-mail: donald.mabbott@sickkids.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 U of T NEUROSCIENCE NEWS

Charles H. Tator - Barbara Turnbull Lectureship Series in Spinal Cord Injury

The Krembil Neuroscience Centre and the University of Toronto Neuroscience Program are pleased to present the 7th Annual **Charles H. Tator - Barbara Turnbull Lectureship Series in Spinal Cord Injury**. This annual presentation features leading researchers in the field of spinal cord injury. We are excited to have Dr. Jerry Silver from Case Western Reserve University, Cleveland, Ohio as the 2008 Keynote Speaker.

DATE: Friday, November 14, 2008

LOCATION: Colony Grande Ballroom East, 2nd Floor
89 Chestnut University of Toronto*
89 Chestnut Street
Toronto, ON M5G 1R1

POSTER SESSION: 11:00 AM to 1:00 PM

LECTURESHIP: 1:00 PM to 5:00 PM

For more information, please contact Amy Lem at tel : 416-603-5085 or amy.lem@uhnresearch.ca.

** Wheelchair accessible*

The 5th Annual Krembil Neurosciences Symposium (KN2008)
Past, Present and Future - Combining Cutting Edge Science with Excellence in Patient Care!

November 13th - 14th, 2008
The Chestnut Residence
(Formerly the Colony Hotel)
89 Chestnut St.
Toronto, Ontario, Canada

For information on the conference or registration please contact:
Caroline Allaire
(416) 603-5800 (Ext. 2288)
caroline.allaire@uhn.on.ca
Website: http://www.uhn.ca/KrembilSymposium2008.asp

Conference Objectives
Caring for individuals with brain and spinal pathology can be challenging. Input from a multidisciplinary team is essential in providing quality care. Our symposium aims to:
- Provide a forum for health care professionals to increase their knowledge of neurological pathology and advances in surgical technology;
- Examine evidence-based approaches in the management of; individuals adapting to neurological injuries/pathology;
- Identify resources to assist the health care team in the provision of care to these individuals;
- Discuss the application of current research in clinical practice;
- Discuss innovative strategies designed to support patients and families in coping with their illness

NEW PHYSIOLOGY GRADUATE-ONLY COURSE

To be offered for the first time in the Jan 2009 Session

PSL1071H - Advanced Topics: Computational Neuroscience

Interested students can enrol in this course on ROSI, using the following information:

Activity Code: PSL1071H
Session Code: 20091
Section Code: S

Course Coordinator:
F. Skinner

Description:
Computational neuroscience seeks to understand how the brain and nervous system compute. This highly interdisciplinary field requires both experiment and theory and encompasses several disciplines including physiology and mathematics. This course will focus on selected computational neuroscience aspects including: types of neuron and network models (detailed and simple representations, phase models), and techniques from dynamical systems theory that are used to analyze different models. The emphasis in this course will be on understanding the neurophysiologic basis and assumptions in models and possible insights and understanding that can be achieved from the models and analyses.

Format:
This graduate-only seminar style course will satisfy part of the course requirement for the graduate program in the Department of Physiology.

The course will expose graduate students to the range of research taking place in the computational neuroscience field and will create awareness of available resources. Seminal papers in the field will be reviewed and presented by students. For example, papers involving biophysical neuron and network models and mechanisms determined via nonlinear dynamics.

The overall objective of this course is to foster an appreciation for both neurobiological and theoretical/mathematical aspects and their interactions in the field so that students can read and critically evaluate computational neuroscience papers. This course is expected to enhance collaborative research training by teaching students how to interact as well as expanding and enriching their view of theoretical and non-theoretical research interactions in the future.

The field of Computational neuroscience is represented by annual meetings, journals specific to the field and is recognized via symposia, socials and topics in the annual Society for Neuroscience meeting. Physiological journals strongly encourage modeling and quantification. For example, the chief editor of the Journal of Neurophysiology claimed that, "…Many of the most important findings in neurophysiology come from the use of quantitative methods of data analysis and from models of nervous system structure and function. Therefore we invite computational and theoretical papers that are strongly tied to the physiological analysis of the brain and nervous system." (J. Neurophysiol. 88:1, 2002).

The Department of Physiology has a history of theoretical physiology and encourages students with backgrounds in physical sciences. This course is a natural addition to the graduate program given the developments in the Neuroscience field today. This course is also meant to break down communication barriers between different disciplines and to encourage dialogue between theoretical and non-theoretical type individuals.

Prerequisite:
First year calculus and an introductory biology/neuroscience type course.

Evaluation:
Oral presentations: **45%**
See details below. Part (i) 15%; part (ii) 30%.

Class participation: **15%**
Questioning and participation during journal club paper presentations and participation in questioning and discussions in general. A checklist (of "none/adequate/very good") will be done for each class, and full marks will be given if adequate and/or very good is achieved in the majority of the 12 lectures.

Written: **40%**

Remarks:
This class requires a minimum enrolment of 4.

OTHER NEUROSCIENCE NEWS

On Wednesday November 12th, 2008
The **Toronto Multiple Sclerosis Journal Club** will be hosting a dinner symposium
Myelin in MS:
From the Building Blocks to the Big Picture

What: An evening mini-symposium sponsored by **endMS**, with guest speakers Drs. Joan Boggs and Doug Arnold presenting on the biology and imaging of myelin. An informal poster walk-around will take place during the cocktail hour preceding dinner.

When: Wednesday November 12, 2008
6:30 p.m. Cocktails *(cash bar)* and poster presentations
7:30 p.m. Dinner with round table discussion and guest speakers to follow

Where: The National Club, 303 Bay St. Toronto
Tudor Room, 3rd Floor (*accessible by elevator*)

Who: Anyone with MS research interests is welcome.
MS clinicians, researchers and trainees are encouraged to RSVP with abstracts from recently presented posters. Several will be selected for 3-5 minute presentations during the cocktail hour.
Space is limited and places will be filled on a first-come, first-served basis.
RSVP to Heather Hanwell heather.hanwell@gmail.com by November 1st.
** Please indicate any dietary restrictions and note whether or not you have a poster to present. As this is a formal **endMS** educational initiative, trainees with posters created within the past 8 months are strongly encouraged to submit abstracts upon RSVP. However, attendees should not feel obligated to create new posters for this event. New trainees are also welcome. Details for poster presenters will follow upon your confirmation.

ANDP Fall Trainee Forum: Careers for Neuroscientists in Federal Agencies
At the Annual Meeting for the Society for Neuroscience

Organizer/Moderator: Rae Nishi, PhD
Location: Auditorium, Renaissance Washington Hotel
Date & Time: Monday, Nov 17, 11:30 am – 1:00 pm

Description:

Did you think getting a doctoral degree meant being in an ivory tower for the rest of your life? Your degree actually qualifies you for a myriad of careers outside of the academy. Come make the most of your trip to Washington DC to hear about the opportunities for jobs in federal agencies that utilize your training in neuroscience.

Featuring a discussion with:

Thomas P. Finn, PhD
Product Reviewer, Division of Cell & Gene Therapy, Center for Biologics Evaluation and Research, Food and Drug Administration

Aixa Alfonso, PhD
Program Director, Neural Systems Cluster, National Science Foundation

Michelle D. Jones-London, PhD
Program Director, Office of Minority Health and Research, National Institute of Neurological Disorders and Stroke, National Institutes of Health

Timothy J. Shafer, PhD
Research Toxicologist, Neurotoxicology Division, U.S. Environmental Protection Agency

Scolnick Prize in Neuroscience

Call for Nominations: Now through November 30, 2008

The McGovern Institute for Brain Research is accepting nominations for the 6th annual Edward M. Scolnick Prize in Neuroscience. The Prize recognizes an outstanding discovery or significant advance in the field of neuroscience. It consists of $50,000 and an inscribed gift. The recipient presents a public lecture at MIT, hosted by the McGovern Institute and followed by a gala dinner in Spring 2009.
Nomination Deadline: November 30, 2008

Nomination procedures:
Candidates for the award must be nominated by individuals affiliated with universities, hospitals, medicals schools, or research institutes, with a background in neuroscience. Self-nomination is not permitted.

Each nomination should include:
- A biosketch or CV of the nominee;
- A letter of nomination with a summary and analysis of the major contributions of the nominee to the field of neuroscience.
- Up to two representative reprints will be accepted.

Selection Procedure:
- Members of the selection committee and faculty affiliated with MIT are not eligible.
- Announcement of the award recipient will be made in February 2009
- Recipient must attend all events to be awarded the prize.

Past Scolnick Prize Recipients:
2004: Dr. Masakazu Konishi, California Institute of Technology
2005: Dr. Judith L. Rapoport, National Institutes of Mental Health/NIH
2006: Dr. Michael E. Greenberg, Children's Hospital/Harvard Medical School
2007: Dr. David Julius, University of California, San Francisco

2008: Dr. Michael Davis, Emory University School of Medicine, Atlanta

Send nomination packet to:
Attn: Scolnick Prize Nomination
McGovern Institute for Brain Research
Massachusetts Institute of Technology
77 Massachusetts Avenue 46-3160
Cambridge, MA 02139

For more information: McGovern@mit.edu

19th Annual Rotman Research Institute Conference COGNITIVE AGING: RESEARCH AND PRACTICE

The InterContinental Centre Hotel
225 Front Street West, Toronto Canada

Pre-Conference Session - Sunday, March 8, 2009
Conference - Monday, March 9 and Tuesday, March 10, 2009

For additional information, please visit the web-site: http://www.rotman-baycrest.on.ca.

Queries can be directed to (416) 785-2500 ext. 2363 or e-mail pferreira@baycrest.org.

2009 Wisconsin Symposium on Emotion

April 23 & 24, 2009
Monona Terrace, Madison, Wisconsin
The theme: Adolescence: Brain Plasticity & Psychopathology
Starting in November,
see the HealthEmotions Research Institute website
http://healthemotions.org for more information

NERVE: October 2008
www.sfn.org/nerve
An information gateway for teaching about the nervous system

NERVE has arrived! This new and exciting encycloportal of information about the brain, related health issues and more is full of ready-to-use resources for scientists and K-12 teachers.

- A one-stop-shop: Top-notch resources about the brain and nervous system have been selected by scientists and educators and assembled for easy use
- Resources at your fingertips: Videos, animations, lesson plans, games, curriculum, and publications, including all the Society for Neuroscience educational resources
- Tailored to your needs: Browse resources by topic, format, or grade level. You're sure to find what you're looking for!

Featured Resource
Pharmacology Education Partnership
The "PEP Project" is a dynamic combination of curriculum design, science content, and professional development aimed at high school biology and chemistry students by showing them how basic science concepts apply to their own lives.

The Word About NERVE
"Advances in science are happening so quickly. Teachers know this site is the 'go to' place for exciting ideas and resources. Topics like sleep and learning, addiction, brain plasticity, our senses, and how the billions of nerve cells in our bodies communicate and function — it's all at your fingertips." – Kyle Frantz, Assistant Professor of Education, Georgia State University

Request or Download a Free CD-ROM. Multiple copies of the CD version are available for teacher-training workshops and neuroscience education outreach activities.

Society for Neuroscience
1121 14th Street, Suite 1010
Washington, DC 20005
Phone: (202) 962-4000
Web: www.sfn.org
For questions, contact nerve@sfn.org.

POSITIONS AVAILABLE

UNIVERSITY OF TORONTO AND AFFILIATED INSTITUTIONS

DISTINGUISHED CHAIR POSITION

Anne and Max Tanenbaum Chair in Cognitive Neuroscience
The Rotman Research Institute
Baycrest Centre

Funded by an endowment from Anne Tanenbaum, a Joint Chair program in biomedical research has been established by the University of Toronto, in cooperation with Baycrest Centre, the Hospital for Sick Children, Mount Sinai Hospital, and the University Health Network to honour Anne and Max Tanenbaum. The purpose of the Joint Chair Program is to support research priorities in Molecular Medicine or in Neuroscience at each of the five institutions by providing each institution with funding for an endowed Chair. Each Chair is to be awarded to an outstanding researcher who has clearly established an international leadership in an area of research identified as a priority by the institution in either Molecular Medicine or in Neuroscience. The emphasis on the Baycrest Chair position currently being recruited is particularly on the theoretical understanding of cognitive function.

Responsibilities of the chair include:

- establishing a nationally-recognized and externally-funded independent and interactive research program in cognitive neuroscience;

- obtaining peer reviewed grants from granting agencies and other funding sources to support individual research for his/her own independent research program;
- establishing research collaborations with researchers in The Rotman Research Institute, Baycrest Centre, and other academic units both at the University of Toronto and internationally;
- mentoring junior faculty, postdoctoral fellows, and postgraduate students, and research assistants interested in neurocognitive research;

The Rotman Research Institute focuses on behavioral and neuroimaging studies of memory, attention, and perception with excellent on-site ERP, MEG and MRI labs. The Rotman Research Institute staff includes many prominent senior researchers with ample opportunity for collaboration.

Qualifications for the position include a M.D. or Ph.D. degree in a cognitive neuroscience field; a sustained record of external funding; and a reputation as an international leader in cognitive neuroscience. The successful candidate should be an independent researcher in the study of the neural basis of behaviour and cognitive function and possible effects of neurological disorders (stroke; aging, dementia; traumatic brain injury, etc.). This individual will have an established record of collaborative research with other professionals, clinicians and students and possess a strong record of publications, scholarship and professional service consistent with the rank of Full Professor.

We are strongly committed to diversity within its community and especially welcome applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to further diversification of ideas. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Interested candidates should submit a covering letter describing current research interests and future research goals, a CV, up to 3 reprints and the names of three potential references to:

Dr. AR McIntosh, Director
Rotman Research Institute
Baycrest Centre
3560 Bathurst Street, Toronto, ON M6A 2E1
rmcintosh@rotman-baycrest.on.ca

COMPUTATIONAL NEUROIMAGING SCIENTIST

The Rotman Research Institute, Baycrest Centre
University of Toronto

The Rotman Research Institute of Baycrest Centre for Geriatric Care invites applications for a Computational Neuroimaging Scientist, a core member of the Heart and Stroke Centre for Stroke Recovery (HSFCSR). The successful candidate will engage in a research program on computational methods and models that serve to integrate structural and/or functional neuroimaging modalities. The candidate must possess a PhD or equivalent and demonstrated experience in neuroimaging or computational neuroscience. The Rotman Institute is part of a large collaborative cognitive neuroscience community with research foci ranging from brain mechanisms of memory, attention and executive function, to their changes across the lifespan and resulting from brain damage or disease, to the development of cognitive rehabilitation strategies. Neuroimaging is a key methodology across all of these programs. The Rotman Research Institute has state-of-the-art electroencephalography and magnetoencephalography laboratories in-house, and a research-dedicated Siemens 3 Tesla MRI.

HSFCSR is a virtual organization made up of three leading healthcare centres: Baycrest, Rotman Research Institute and Kunin-Lunenfeld Applied Research Unit; Sunnybrook Health Sciences Centre; and the Ottawa Health Research Institute/University of Ottawa, in a unique public-private partnership with the Heart and Stroke Foundation of Ontario. More information about the Heart and Stroke Foundation Centre for Stroke Recovery, can be found at www.hsfcsr.ca

Some examples of research that a successful candidate would conduct are: development of new analytic approaches for any of the listed imaging modalities; development of computational tools to integrate data between different imaging methods; construction of biologically accurate models for dipole source localization in ERP and MEG. The candidate would work closely with the neuroscientists at the Rotman and collaborating institutes and will be eligible for an appointment at the University of Toronto at the assistant professor level. Applications are encouraged from qualified women and men, members of visible minorities, aboriginal peoples and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed initially to Canadian citizens and permanent residents.

Applicants should submit a covering letter describing current research interests and future research goals, a complete C.V., relevant reprints and the names of three potential references to:

Dr AR McIntosh, Director,
Computational Neuroimaging Scientist Search Committee
The Rotman Research Institute
Baycrest Centre
3560 Bathurst St, Toronto, Ontario, M6A 2E1
Fax (416) 785-2474
E-mail: rmcintosh@rotman-baycrest.on.ca

Review of applications will begin on December 1, 2008, and will continue until the position is filled.

POSTDOCTORAL POSITION

Postdoctoral Fellow in Neuroscience
Location: Department of Physiology, Faculty of Medicine
University of Toronto

Salary and Conditions:

Commensurate with training and research experience. It is University policy that appointments as Postdoctoral Fellows should

start within 5 years of the year that the PhD is earned.

Project Description:

Applications for a postdoctoral fellow position and/or postgraduate training in the area of inhibitory neurotransmission and memory and pain. The projects aim to understand the role of specific GABA-A receptor subtypes in cognition and pain. Candidate will join a dynamic team that uses techniques that range from single channel recordings to associated learning assays. The candidate will be expected to participate in planning and intellectual development of projects, and will use multidisciplinary approaches to satisfy research objectives.

Eligibility Requirements:

Postdoctoral applicants should have a recent PhD with a strong background in one of the following techniques: patch clamp electrophysiology, neurobehavioral testing or biochemistry related to ion channels. Candidates must be highly self-motivated, enthusiastic and adaptable, with good oral and written communication skills.

Duration: 2+ years

Deadline: Until position is filled

Contact: Beverley.orser@utoronto.ca

Please send CV and the names of 3 referees (including full contact information) to:
Beverley A. Orser, MD, PhD
Department of Physiology
University of Toronto
Room 3318 Medical Sciences Building
Toronto, Ontario, M5S1A8
Tel.: 416-978-0574
Fax: 416-978-4940

BALANCE and MOBILITY RESEARCH COORDINATOR

Centre for Studies in Aging, Sunnybrook Health Sciences Centre (Toronto, Canada)

Description:

We are seeking an enthusiastic, self-motivated and talented individual, with a strong practical background in balance and mobility research, to work as a Research Coordinator in a balance, gait and motor-control research and development centre.

The successful candidate will be a key member of a multi-disciplinary and multi-institutional research team headquartered at the Sunnybrook Centre for Studies in Aging. The research team is currently led by 12 scientists, with expertise in biomechanics, bioengineering, kinesiology, rehabilitation engineering, neuroscience, experimental psychology, rehabilitation science, physical therapy, geriatrics, psychiatry, pharmacology and epidemiology. The research program is supported by a major team grant from the Canadian Institutes of Health Research, as well as operating grants and other funds held by the individual scientists.

The Centre for Studies in Aging (CSiA) has been a world leader in the study of age-related balance/mobility impairments and the development of assistive technologies for over 25 years. CSiA is located at Sunnybrook Health Sciences Centre, which is a major research and teaching hospital fully affiliated with the University of Toronto. The University of Toronto Faculty of Medicine is the largest research entity in Canada and the fourth largest in North America. CSiA also has very close ties to the Toronto Rehabilitation Institute, which is the largest rehabilitation center in Canada. Toronto is the largest city in Canada, and offers a wealth of cultural and recreational opportunities.

The CSiA research program is aimed primarily at understanding effects of aging on the control of balance and movement, and developing new approaches to prevent falls and promote safe mobility in older adults. Within these areas, there is a wide range of projects, encompassing fundamental studies of biomechanics and motor control, applied research and development of assistive technologies, and clinical falls-prevention programs. A major strength of the program is the combination of basic science, clinical research and product design and development. Research facilities include two unique large-scale motion-platform systems for evoking balance reactions, and associated instrumentation (motion-analysis systems, force plates, EMG, eye trackers, etc). Development facilities include design workstations, electronics and machine shops, and laboratories for testing of prototypes.

For more information about our research, please see our web site:
www.sunnybrook.ca/research/?page=csiahome

Responsibilities:

The Research Coordinator will be responsible for managing: 1) the networking and research activities of the research team; 2) the dissemination of the research outcomes to lay, scientific and clinical audiences; and 3) the implementation and assessment of the new research findings and technologies within a new network of balance and mobility clinics.

Other specific responsibilities may include: 1) coordinating the recruitment and screening of study participants; 2) training, supervising and assisting staff and students in using laboratory equipment; 3) assisting with running experiments and performing the associated data collection, processing and analysis; 4) performing literature searches and maintaining a literature database.

Qualifications:

BSc, MSc or PhD in biomechanics, bioengineering, kinesiology, ergonomics, rehabilitation science or a related field. Applicants will require strong interpersonal, communication and organizational skills, and must have training and experience in performing balance and mobility research. Specific experience in using instrumentation such as force plates, EMG, eye trackers and motion-analysis systems would be an asset.

Sunnybrook Health Sciences Centre hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

Starting salary will range from $50,000 to $60,000 per year (Canadian funds) depending on education and experience. A full benefits package is provided. The position is available immediately, although the starting date is negotiable to some extent. We will accept applications until the position is filled.

Application:

To apply, please email a covering letter, your resume or curriculum vitae, a one-page summary of your experience in performing biomechanical measurements and balance/mobility research, and a scan of your university transcripts (an unofficial copy will suffice, at this stage) to:

rkeshwah@sri.utoronto.ca
Rachel Keshwah, Research Administrative Assistant;
Centre for Studies in Aging, Sunnybrook Health Sciences Centre; 2075 Bayview Avenue, Toronto, Ontario CANADA M4N 3M5

Please be sure to indicate the position for which you are applying (Balance and Mobility Research Coordinator), your citizenship and when you would be available to start. Only complete applications will be considered. After an initial screening, selected applicants will be asked to forward official university transcripts and three academic/professional letters of reference.

BIOMECHANICS RESEARCH ENGINEER

Centre for Studies in Aging, Sunnybrook Health Sciences Centre (Toronto, Canada)

Description:

We are seeking an enthusiastic, self-motivated and talented individual, with a strong practical background in biomechanics and engineering, to work as a Research Engineer in a balance, gait and motor-control research and development center.

The successful candidate will be a key member of a multi-disciplinary and multi-institutional research team headquartered at the Sunnybrook Centre for Studies in Aging. The research team is currently led by 12 scientists, with expertise in biomechanics, bioengineering, kinesiology, rehabilitation engineering, neuroscience, experimental psychology, rehabilitation science, physical therapy, geriatrics, psychiatry, pharmacology and epidemiology. The research program is supported by a major team grant from the Canadian Institutes of Health Research, as well as operating grants and other funds held by the individual scientists.

Responsibilities:

The Research Engineer will be responsible for all technical aspects of the research team's activities.

Specific responsibilities include: 1) design and construct new devices, equipment and software; 2) maintain, calibrate and repair laboratory equipment; 3) instruct and supervise other personnel in the use of this equipment; 4) maintain the local computer network; 5) perform (or assist with) the design of studies and the collection, processing and analysis of the data.

Qualifications:

BSc or MSc in mechanical, electrical, biomedical or rehabilitation engineering, or a related field. Applicants must have experience in using and troubleshooting laboratory instrumentation (e.g. motion-analysis systems, force plates, EMG, eye trackers), as well as a clear understanding of the underlying measurement principles. Strong electronics/mechanical design, repair and fabrication hand-skills, as well as strong computer programming skills, are also needed. Training in movement biomechanics and experience in performing biomechanical experiments with human subjects would be an asset.

Sunnybrook Health Sciences Centre hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

Starting salary will range from $50,000 to $70,000 per year (Canadian funds) depending on education and experience. A full benefits package is provided. The position is available immediately, although the starting date is negotiable to some extent. We will accept applications until the position is filled.

Application:

To apply, please email a covering letter, your resume or curriculum vitae, a one-page summary of specific relevant experience (i.e. using laboratory instrumentation; designing, fabricating and repairing electronic and mechanical devices; computer programming), and a scan of your university transcripts (an unofficial copy will suffice, at this stage) to:

rkeshwah@sri.utoronto.ca
Rachel Keshwah, Research Administrative Assistant;
Centre for Studies in Aging, Sunnybrook Health Sciences Centre; 2075 Bayview Avenue, Toronto, Ontario CANADA M4N 3M5

Please be sure to indicate the position for which you are applying (Biomechanics Research Engineer), your citizenship and when you would be available to start. Only complete applications will be considered. After an initial screening, selected applicants will be asked to forward official university transcripts and three academic/professional letters of reference.

CANADA

BRAIN IMAGING SCIENTISTS AND BIOSTATISTICIANS

We are an excellent team of scientists from different Canadian Universities working together to provide brain imaging and biostatistics services to Biotech, Pharma, Medical device and CRO companies, as well as Government and Academic Centres. The techniques we use are PET, MRI, fMRI, and EEG. Our area of specialty is wide within the Neurosciences, but we mostly work on Dementias.

We are currently in need of Brain imaging scientists and Biostatisticians, who are willing to work part time per project basis. This means, as soon as projects arrive at the company, the specific person will be assigned a project that he or she will be able to perform. This is not an employment situation, but instead each scientist will be paid on a contract basis as needed. This opportunity is for Canadian citizens or permanent residents only. Interested persons please send a CV to Dr. Adolfo Cotter at: adolfo.cotter@neuroimageinc.com. If you prefer you can mail your CV to Dr. Adolfo Cotter, Neuroimage Inc. 2181 Yonge St. Suite 801, Toronto, ON M4S 3H7, Canada, or fax it at 416-352-5088.

SESSIONAL LECTURER

University of Ontario Institute of Technology (UOIT)
Oshawa, Ontario

Faculty of Science - Sessional Lecturer - Neuroscience - UOIT08-78
Competition Number: UOIT08-78
Position: Sessional Lecturer - Fundamentals of Neuroscience
Posting Date: August 8, 2008
Closing Date: November 15, 2008 (revised September 22, 2008)

We invite you to consider joining UOIT's globally educated faculty as we further our reputation as a leading-edge learning environment and delivering innovative research. UOIT has a 21st century vision of teaching and learning excellence. Our educational philosophy is to challenge, encourage innovation, and connect our faculty, students and the community, while respecting the best practice traditions of Canada's established universities.

The Faculty of Science invites applications for a part-time sessional lecturer position in the coming Winter 2009 semester to teach the course BIOL 3060U (Fundamentals of Neuroscience) Please see the calendar listing for this course number under the Science Course List link at the Faculty of Science web site http://science.uoit.ca.

The successful candidate will prepare and give the lectures and tutorials for the course, prepare and mark assignments, tests and examinations, answer student questions, maintain regular office hours and invigilate tests and examinations.

Qualifications include a graduate degree (PhD preferred) and teaching and research experience related to the course subject matter, excellent communication skills, and teaching, marking and student consultation experience at the post-secondary level. Strong computer skills, including scientific software, e-mail, word processing and presentations, are essential, and experience with WebCT is an asset. In keeping with our technology-enhanced learning environment utilizing laptop computers and wireless connectivity, UOIT seeks instructors who strive to explore and develop new pedagogies. Science courses are currently taught using tablet computers, and there is an array of state-of-the-art software on the student laptops, integrated into the pedagogy.

UOIT is an equal opportunity employer and welcomes applications from qualified women and men, including members of visible minorities, Aboriginal peoples and persons with disabilities. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Applications will be accepted until a suitable candidate is found. Applicants should provide their curriculum vitae and the names and contact information of at least three referees to Dr. William R. Smith, Dean of Science, UOIT, c/o Director of Human Resources, by e-mail to careers@uoit.ca with their name and the above competition number in the subject line.

RESEARCH ASSOCIATE

Montreal Neurological Institute
McGill University

The Montreal Neurological Institute (MNI) of McGill University invites applications from outstanding candidates for a Research Associate position. The successful candidate will hold an MD and/or Ph.D. degree and have experience in the following areas:

1. Electrophysiological recordings from non-human primates;
2. Research on the primate oculomotor and visual systems;
3. Animal training;
4. Surgical techniques;
5. Behavioural experiments involving eye movements and visual perception;
6. Computer programming using Matlab and C/C++;
7. Statistical analysis of neuronal and behavioural data;
8. Online and offline spike sorting.

The successful candidate will also have strong interpersonal skills and a good command of written and spoken English. Salary will be commensurate with qualifications up to $50,000 per year. Applicants should submit a letter of interest, curriculum vitae, and the names of three references to: Dr. Christopher Pack, Room 896, Montreal Neurological Institute, 3801 University St., Montreal, QC, Canada, H3A 2B4. McGill University is committed to equity in employment and diversity. It welcomes applications from indigenous peoples, visible minorities, ethnic minorities, persons with disabilities, women, persons of minority sexual orientations and gender identities and others who may contribute to further diversification. All qualified applicants are encouraged to apply; however, in accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Deadline for receipt of applications is November 15, 2008.

USA

ENDOWED PROFESSORSHIP

Endowed Professorship in Neurophysics or Biophysics
Trinity University, San Antonio, Texas

Trinity University invites applications for the newly established Otis M. Williams and Evelyn Freeman Williams Endowed Professorship in Neurophysics or Biophysics, to begin in August 2009. This position, along with one additional senior and two junior level positions in Biology and Psychology, will enrich our newly implemented undergraduate major in Neuroscience. A Ph.D. in Physics, or Neuroscience with a strong Physics component, and a distinguished record of teaching and research are required. The successful candidate will teach both physics and interdisciplinary courses, strongly contribute to an existing degree program in Neuroscience, and establish a program of forefront research that can include participation by highly motivated and capable undergraduate students.

Trinity University (http://www.trinity.edu) is an independent, coeducational, selective, primarily undergraduate institution with high quality science, liberal arts, and pre-professional programs. Undergraduate enrollment is approximately 2500, including students from all areas of the United States and many foreign countries. The attractive campus overlooks downtown San Antonio, a large, vibrant city that offers a wide range of cultural opportunities.

The Department of Physics and Astronomy (http://www.trinity.edu/physics) has six faculty members, and attracts outstanding undergraduate students into its program. Active research areas within the department include astrophysics/cosmology, atmospheric physics, dynamics and pattern formation in soft matter and biological systems, nanomaterials/plasmonics, and gravitational-wave detection. The department's majors are among the most talented in the university, and many attend top-ranked graduate schools after leaving Trinity.

Applicants should submit a *curriculum vitae*, detailed statements of experience and interests in both teaching and research (including a description of opportunities for student research participation), and other materials of the candidate's choice.

Applicants should also arrange for at least three letters of reference. In order to receive full, first-review consideration, complete application materials and letters of reference should be received at the following address by December 1, 2008:

Chair of the Search Committee
Endowed Professorship in Neurophysics or Biophysics
Department of Physics and Astronomy
Trinity University
One Trinity Place
San Antonio, TX 78212-7200

Trinity University is an equal opportunity employer.

We strongly encourage applications from qualified women and minority candidates.

POSTDOCTORAL POSITION

Department of Physiology & Biophysics
University of Washington
Seattle, Washington

Our laboratory is looking for a postdoctoral fellow. Our studies are focused on the neurobiology of breathing in mammals. We use an in vitro brainstem slice preparation derived from neonatal mice, additionally we also utilize a knock-in mouse model where GABAergic neurons are labeled with green fluorescent protein. We have used the brainstem slice for a number of years to study the properties of single visualized neurons and synaptic transmission; additionally this in vitro preparation can be configured to generate rhythmic respiratory activity. Thus we have also used this preparation to study the neuronal circuitry of inspiratory-phase neuronal activity and recently focused our work on the short-term synchrony that occurs within inspiratory-phase neural discharge. We want to study at a cellular level the role of inhibition in inspiratory-phase pattern formation. During the next 6-12 months we are seeking a postdoctoral fellow, preferably with some prior training in electrophysiological methods, who would like to obtain further training in electrophysiology and study this important motor system at a cellular level. This position is funded by an NIH R01 grant, and is available immediately, but can be held for you if you will be completing your PhD program within the next 12 months.

You may want to look at the following recent publications from the laboratory.

van Bred erode JF and Berger AJ. Spike-firing resonance in hypoglossal motoneurons. J Neurophysiol. 99: 2916-28, 2008.

Sebe JY and Berger AJ. Inspiratory-phase short time scale synchrony in the brainstem slice is generated downstream of the pre-Bötzinger complex. Neuroscience 153: 1390-401, 2008.

Albert J. Berger, PhD
Email: berger@u.washington.edu

OVERSEAS

PRE AND POSTDOCTORAL POSITIONS

LCN laboratorio de circuitos neuronales
at the Instituto Cajal
www.hippo-circuitlab.es

Madrid, SPAIN

Both pre- and post-doctoral positions are available in the field of systems neurobiology. We are interested in how complex spatiotemporal patterns of activity are produced with a special emphasis in the cellular and synaptic rules that govern circuit dynamics. We are also interested in the role of diverse forms of hippocampal activity in the formation of episodic memory in rats and mice.

Several research lines are available using a variety of techniques:
- in vitro electrophysiology (extracellular and patch recordings)
- in vivo anesthetized electrophysiology (multichannel recordings)
- behavioral electrophysiology (EEG, unit recordings)
- imaging (calcium- and voltage-sensitive dye imaging)
- computational analysis and programming
- basic anatomical tools (single-cell morphology, immunohistochemistry)
- behavior and basic electrophysiology (LTP, LTD)

Our research is supported by several grants from national and local funding agencies, the European Commission under FP6 and FP7 and the CSIC. More information: www.hippo-circuitlab.es

We look for highly motivated candidates, with excellent CV, strong experimental and/or computational skills. Competencies in critical thinking, reading capacity and team-working are highly valuable.

Selected recent publications:
- Neuron 55: 930-941 (2007)
- Neuron 49:131-142 (2006)
- Journal of Neuroscience 24:5525-5536 (2004)
- Journal of Physiology 549: 219-230 (2003)

L. Menendez de la Prida
Instituto Cajal - CSIC
Madrid, SPAIN

POSITION WANTED

Are you looking for help in your lab? My name is **Anthony Apostoli** and I graduated from the University of Toronto with a B.Sc. in Life Sciences. I have several years of solid research experience in both the laboratory and the clinical setting. Over the course of two undergraduate theses, I have become proficient using Western blotting and real-time PCR protocols. I have worked as a research coordinator at Toronto General Hospital where I managed several clinical studies focusing on blood disorders. I have also had the opportunity to work in Sri Lanka as a laboratory technician. Because of my past experiences in several different facilities, I have become very familiar with the laboratory setting and have shown that I am quite capable of working independently. In addition, my critical thinking skills and meticulous planning would be a definite asset to my work in the lab. I am looking for a position as a research assistant or a laboratory technician. I am willing to start right away! If you are interested in contacting me, I can be reached at (647) 828-8173 or by email at anthony.apostoli@utoronto.ca.