

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 34, No. 6 – February 2018

Featured In This Issue

Announcement: 2018 Jonathan Dostrovsky Award in Neuroscience Please see page 2 for details.

2018 Toronto Brain Bee will be held on Thursday, April 12, 2018 at the University of Toronto. High school student participant registration is still open and CPIN member volunteer opportunities are available. Please visit our website for details:

<http://www.neuroscience.utoronto.ca/events/brainbee.htm>

CPIN Research Day is tentatively scheduled for June 2018. Please follow our newsletter, mailing lists and the CPIN website for upcoming details.

2016-2017 CPIN Annual Report is now available on the CPIN Annual Report webpage:

<http://www.neuroscience.utoronto.ca/communications/annualreports.htm>

News – CPIN Faculty Members Congratulations to **Dr. Morgan Barense** (Associate Professor, Psychology) for being awarded the Cognitive Neuroscience Society (CNS) 2018 Young Investigator Award. Please see page 3 for details.

News – CPIN Trainees Congratulations to CPIN student member **Winnie Qian** (Institute of Medical Science, Supervisors Dr. Tom Schweizer and Dr. Corinne Fischer) on recently completing the CPIN requirements and graduating from her MSc program. Please see page 3 for details.

CPIN Undergraduate Mentorship Panel Event Report The CPIN Mentorship Program held its Professor Meet and Greet event on February 8th. Please see page 4 for details.

Neuroscience Opportunities Please see page 5 for details.

2017-18 CPIN Distinguished Lectureship Series

<http://www.neuroscience.utoronto.ca/events/lectureship.htm>



Speaker | **Dr. Geoffrey F. Woodman**, Department of Psychology, Vanderbilt Vision Research Center, Center for Cognitive and Integrative Neuroscience, Vanderbilt University

Title | *Using electrophysiology to measure long-term memory and working memory as they control attention trial by trial*

Date | **Wednesday, February 7, 2018**

Time | **12:15 pm**

Location | Room 205 (BL 205), Claude T. Bissell Building (BL 205), 140 St. George Street, U of T

Host | Dr. Michael L. Mack, Assistant Professor, Dept. of Psychology, U of T
Co-sponsor | Dept. of Psychology Ebbinghaus Empire Talk Series, U of T

CPIN Emerging Leaders in Neuroscience Lecture

Speaker | **Dr. Shiva Tyagarajan**, Assistant Professor Neuro Developmental Pharmacology, Institute of Pharmacology and Toxicology, University of Zurich

Title | *GABAergic Inhibition: A case for dynamic thinking*

Date | **Friday, May 11, 2018**

Time | 2:00 pm

Location | Room 432, Ramsay Wright Building, Department of Cell & Systems Biology, 25 Harbord St., U of T

Host | Dr. Melanie Woodin, Professor, Cell and Systems Biology, U of T; Director, Human Biology Program, U of T

Co-sponsor | Department of Cell & Systems Biology Seminar Series, U of T



CPIN Newsletter

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CPIN Participating Units
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Biochemistry
Biomaterials & Biomedical Engineering
Cell & Systems Biology
Computer Science
Dentistry
Laboratory Medicine & Pathobiology
Medical Biophysics
Medical Science
Music
Pharmaceutical Sciences
Pharmacology & Toxicology
Physiology
Psychology
Public Health
Rehabilitation Science

Contributors:
Heart & Stroke/Richard Lewar
Centre of Excellence in
Cardiovascular Research

Human Biology Program
Krembil Research Institute
St. Michael's Neuroscience
Research Program

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Jonathan Dostrovsky Award in Neuroscience

http://www.neuroscience.utoronto.ca/award_opportunities/jonathan_dostrovsky_award.htm



Award Overview

Student Application Deadline: April 20, 2018 for the 2018 award

Where to apply: Office of the Collaborative Program in Neuroscience

Value of the annual award: \$1000 (for the 2018 award)

Duration of award: 1 year

Level of study: Graduate Studies

Purpose: Established by the generosity of Dr. Jonathan Dostrovsky, this annual award recognizes and supports excellence amongst graduate students enrolled in the Collaborative Program in Neuroscience and will be selected based on academic merit.

Eligibility: In order to be eligible, applicants must be registered in a PhD program in the Collaborative Program in Neuroscience at the time of application.

Dr. Jonathan Dostrovsky:

Dr. Dostrovsky completed his undergraduate studies in physics and mathematics at the Israel Institute of Technology in 1969 and then proceeded to graduate studies in the Department of Physiology at University College London where he obtained his M.Sc. degree in 1971 under the supervision of John O'Keefe. His master's research project with O'Keefe led to the important discovery of 'place cells' in the hippocampus, and their seminal paper describing their findings has become a cornerstone in the field of spatial navigation and hippocampal function. Dr. Dostrovsky moved to Toronto where he obtained his PhD degree in the Zoology Dept. in 1974 for studies on pain processing in the spinal cord. Following 3-years of postdoctoral research in London on the somatosensory system with special emphasis on plasticity, with Pat Wall, he returned to the University of Toronto to take up a position in the Department of Physiology. He was promoted full professor in 1989 and is currently a Professor Emeritus in the Department of Physiology and Faculty of Dentistry.

Throughout his career Dr. Dostrovsky has made significant advances in our understanding of the neurophysiological basis of pain perception, somatosensory information processing, brain plasticity and basal-ganglia related movement disorders. A hallmark of these studies is the elegant combination of experiments executed in various animal models and in humans. For example, data from the Dostrovsky lab shed light on how thermal and noxious information is processed at the level of the thalamus in humans and in a rat model of allodynia. In a publication in *Nature*, Dr. Dostrovsky demonstrated how thalamic networks could contribute to phantom sensations in amputees. He also studied this question in animal models, where the plasticity of the sensory map in thalamic networks was demonstrated in rats after the removal of the hind-limb input. In a series of elegant studies he has unveiled the relationship between movement disorders and altered basal ganglia oscillatory activity. These studies have significantly contributed to our current understanding of central physiological mechanisms in the somatosensory and motor networks which underlie our perception of tactile, thermal and painful stimuli and the pathophysiological alterations that occur following certain traumatic or disease-induced injuries to the nervous system.

He was also very actively involved in neuroscience education at the University at the undergraduate, graduate and postdoctoral levels, and has served on many committees at all levels. In particular he served as Director of CPIN from 1993 to 2008, and as the President /Vice President of the Canadian Association for Neuroscience from 2003 to 2007.

Application Process: Completed applications will include the following:

- CV including publications
- 2 letters of support, including one from the student's supervisor, to be sent in PDF format to the CPIN Office (p.neuroscience@utoronto.ca) directly from the issuing professor's official email address
- Summary of student's current research project (1 page maximum)
- Future career plans (1/2 page maximum)

Results:

All applicants will be notified of the results at the 2018 CPIN Research Day (summer 2018)

Visit the CPIN website for the online application form:

http://www.neuroscience.utoronto.ca/award_opportunities/jonathan_dostrovsky_award.htm

<http://www.neuroscience.utoronto.ca/communications/newsletter.htm>

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News - CPIN Faculty Members

http://www.neuroscience.utoronto.ca/communications/news_cpín_faculty_members.htm



Congratulations to **Dr. Morgan Barense** (Associate Professor, Psychology) for being awarded the Cognitive Neuroscience Society (CNS) 2018 Young Investigator Award.

Dr. Barense will deliver her award lecture on Monday, March 26, 2018, 1:30 –2:30 pm at the Constitution Ballroom of the Sheraton Boston Hotel in Boston, MA at the CNS annual meeting:
<https://www.cogneurosociety.org/awards-2/young-investigator-award/>

Dr. Barense's research seeks to understand how the brain supports memory, and how memory is affected by brain damage or disease. In particular, her work has focused on how perceiving an object may be inextricably linked to subsequently remembering it, and how both of these processes are affected by damage to the medial temporal lobes. To answer these questions, her research draws on the complementary strengths of multiple experimental modalities, including neuropsychological investigations of patients with memory disorders, the examination of brain activity with neuroimaging techniques (e.g., fMRI and EEG), eye tracking studies, and behavioural experiments in healthy individuals.

Dr. Barense received her B.A. from Harvard University and her Ph.D. from the University of Cambridge, UK. She remained in Cambridge for her postdoctoral work to undertake a Peterhouse Research Fellowship. She joined the faculty at the University of Toronto in 2009 and was promoted to Associate Professor in 2014. She currently directs the Toronto Neuroimaging Facility. In addition to the Young Investigator Award from the Cognitive Neuroscience Society, she has been honoured with a number of domestic and international awards. These include a Canada Research Chair in Cognitive Neuroscience, a James S. McDonnell Foundation Scholar Award, an Early Researcher Award from the Province of Ontario, an Early Investigator Award and Lifetime Fellowship from the Society of Experimental Psychologists, and an Early Career Award from the Canadian Society for Brain, Behaviour and Cognitive Science.

News - CPIN Trainees

http://www.neuroscience.utoronto.ca/communications/news_cpín_students.htm



Congratulations to CPIN student member **Winnie Qian** (Institute of Medical Science, Supervisors Dr. Tom Schweizer and Dr. Corinne Fischer) on recently completing the CPIN requirements and graduating from her MSc program.

Winnie completed her Master's at St. Michael's Hospital where she investigated the neural correlates of delusions in patients with Alzheimer's disease using magnetic resonance imaging and neuropathology

techniques. Over the course of her time as a CPIN student, Winnie has authored 5 peer-reviewed articles, including a first author publication, with 2 additional first author publications that are in preparation. She has also presented 14 abstracts at numerous national and international conferences, including 4 that were selected for oral presentations.

Winnie has received several scholarships and awards, including the University of Toronto OSOTF SCACE Graduate Fellowship, St. Michael's Hospital Research LKSKI scholarship, and was recently the winner of the Neuropsychiatric Syndromes best poster at the Alzheimer's Association International Conference (AAIC). During her Master's, Winnie was also involved with leadership and extracurricular activities, such as being the chair of the St. Michael's Research Student Association

CPIN Undergraduate Mentorship Event Report

http://www.neuroscience.utoronto.ca/events/undergraduate_mentorship.htm

The CPIN Mentorship Program held its monthly event on February 8th 2018. The **Professor Meet and Greet** event started with a talk by CPIN executives on how to approach a potential supervisor. Then an amazing talk from Dr. Jeffrey Henderson (Faculty of Pharmacy, CPIN Representative) followed on innovative work done in the Henderson lab and new advances in research. Lastly, hors d'œuvres, networking and great conversation!

We would like to thank our attendees, senior scientists (**Dr. Jeffrey Henderson, Dr. Hong-Shuo Sun, Dr. Zhong-Ping Feng and Dr. Marian Hettiaratchi** from Molly Stoichet Lab) and CPIN UMP presenters (**Kate Rzadki & Marija Zicevska**) for their participation and making this event a success! Lastly, we would like to thank the **Human Biology Department** for supporting and sponsoring this event. *(Event report by Vivian Szeto)*



Photo Credits: Dr. Zhong-Ping Feng and Vivian Szeto

Upcoming Events

U of T Neuroscience Seminars

<http://neuroscience.utoronto.ca/events/seminar.htm>

Conferences and Meetings

http://neuroscience.utoronto.ca/events/Conf_M.htm

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Neuroscience Opportunities

http://www.neuroscience.utoronto.ca/communications/Positions_Available.htm

Postdoctoral Positions

Postdoctoral Position

Department of Pharmacology and Toxicology, University of Toronto, Toronto, ON, Canada

Description: A postdoctoral position is available immediately in the laboratory of Dr. Susan George in the Department of Pharmacology and Toxicology at the University of Toronto. This position is funded to investigate the regulation and the role of dopamine and other G protein coupled receptor complexes in the neurobiology of motivated and aversive behaviour, including responses to chronic stress in rodent models of major depression and drug addiction. The ideal candidate will be a recent Ph.D. graduate with a relevant background in Neuroscience, Pharmacology or a related area. Strong background and technical skills in molecular biology, rodent behaviour, neuroanatomy, stereotaxic surgery, immunohistochemical techniques, calcium imaging and confocal microscopy will be an asset. Candidates who have a successful track record of obtaining external personnel funding will be given priority. The initial appointment will be for two years with the possibility of extension. Postdoctoral researchers will be mentored to facilitate their transition to an independent research career. Salary will be commensurate with qualifications, laboratory experience, and institutional guidelines.

Please respond with a current CV, statement of research interest and the names of 3 potential references to Dr. Susan George < s.george@utoronto.ca >

Postdoctoral Position in Translational Neuroscience

University of Toronto, Toronto, Ontario, Canada

Description: We invite highly motivated and responsible candidates to apply for a postdoctoral position in translational neuroscience. This position is funded by the Canadian Institutes of Health Research (CIHR) for a position in Dr. Beverley Orser's laboratory (www.orserlab.com), which is located at the University of Toronto. The research program focuses on the role of GABA-A receptors in regulating network plasticity and memory performance in health and disease.

For further information, please see the link:

<http://can-acn.org/postdoctoral-position-in-translational-neuroscience-orser-lab>

Other Neuroscience Opportunities

Neuroscience Internship Opportunities

Ontario Brain Institute, Toronto, Ontario, Canada

Description: We are passionate about the outcomes of our work, the people and organizations with which we partner, and the opportunity to shape the future. We are united in our common goal to become an internationally recognized centre of excellence in brain research, translation and innovation. Our culture is fast-paced, challenging and rewarding. Sound like the type of organization you would like to be a part of? Then have a look at our internship opportunities (including Industry Relations, Knowledge Translation & Outreach and Research Programs & Informatics).

For further information, please see the link: <http://braininstitute.ca/programs-opportunities/careers>

Reminders

Call for CPIN 2018-2019 Distinguished Lecturer Nominations CPIN trainee & faculty members are welcome to nominate potential speakers for the 2018-2019 Neuroscience Distinguished Lectureship Series. Please submit your nominations at the following link: http://www.neuroscience.utoronto.ca/events/lectureship/distinguished_lecturer_nominations.htm. Nominations will be reviewed by the CPIN Committee for approval.

Follow CPIN on social media: CPIN faculty and trainee members are welcome to follow us at the following links:

Facebook: <https://www.facebook.com/Collaborative-Program-in-Neuroscience-212564644049/>

LinkedIn: <https://ca.linkedin.com/in/cpinuoft>

Twitter: https://twitter.com/CPIN_UofT