

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 32, No. 1 – September 2015

Featured In This Issue

Welcome New CPIN Students Please see page 5 for details.

News – CPIN Faculty Members Congratulations to CPIN Faculty members **Dr. Sandra Black** (Professor, Depts. of Medicine, Rehabilitation Science, Institute of Biomaterials and Biomedical Engineering and the Institute of Medical Science) and **Dr. James Rutka** (Professor & Chair, Surgery) on being recently appointed as Officers of the Order of Canada. Congratulations also to **Dr. Michael Salter** (Professor, Physiology), **Dr. Vincent Tropepe** (Associate Professor, Cell and Systems Biology) and **Dr. Melanie Woodin** (Associate Professor, Cell and Systems Biology) on their new positions/roles. Please see pages 2-4 for more details.

News – CPIN Students Congratulations to CPIN student member **Stefanie Hutka** (Department of Psychology, Co-supervisors Dr. Claude Alain and Dr. Randy McIntosh) on recently completing the CPIN requirements and graduating from her PhD Program. Please see page 4 for more details.

Neuroscience Opportunities Please see page 6 for details.

Call for Volunteers for the 2016 Toronto Brain Bee Please see page 6 for details.

2015-16 CPIN Distinguished Lectureship Series

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



Speaker | **Dr. Luiz Roberto G. Britto**, Professor, Department of Physiology and Biophysics, Institute of Biomedical Sciences, São Paulo University, Brazil

Title | *Neurodegeneration and NADPHoxidases*

Date | **Thursday, August 20, 2015**

Time | 4:00 pm

Location | Rm. 2172, Medical Sciences Building, 1 King's College Circle, U of T

Host | Dr. Hong-Shuo Sun, Associate Professor, Departments of Surgery, Physiology, Pharmacology & Toxicology and Institute of Medical Science, U of T



Speaker | **Dr. Yves De Koninck**, Director, Neurophotonics Centre; Professor of Psychiatry and Neuroscience, Laval University; Scientific Director, Quebec Mental Health Institute

Title | *New tools to probe the brain with light...*

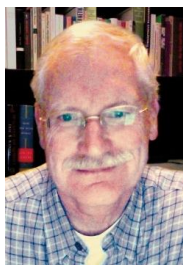
Date | **Friday, September 11, 2015**

Time | 2:00 pm

Location | 610 Auditorium, Health Sciences Building, 155 College St., U of T

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

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



Speaker | **Dr. Wolfram Schultz**, Professor of Neuroscience, Department of Physiology, Development and Neuroscience, Behavioural and Clinical Neuroscience Institute, University of Cambridge; Visiting Research Associate, California Institute of Technology, Pasadena; Visiting Professor, Tamagawa University, Tokyo

Title | *The dopamine reward utility signal and its two components*

Date | **Friday, September 18, 2015**

Time | 3:00 pm

Location | JJR MacLeod Auditorium (Rm. 2158), Medical Sciences Building, 1 King's College Circle, U of T

Host | Dr. Amy Ramsey, Assistant Professor, Depts. of Pharmacology & Toxicology and Physiology, U of T

Sponsor | Department of Pharmacology & Toxicology, U of T

CPIN Newsletter

Zhong-Ping Feng
Director
CPIN
Graduate Studies

Suhail Asrar
Administrator
CPIN Office

CPIN Office

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Lead Faculty

Faculty of Medicine

CPIN Participating Units

Applied Psychology & Human
Development
Biochemistry
Biomaterials & Biomedical
Engineering
Cell & Systems Biology
Computer Science
Dentistry
Laboratory Medicine &
Pathobiology
Medical Biophysics
Medical Science
Music
Pharmaceutical Sciences
Pharmacology & Toxicology
Physiology
Psychology
Rehabilitation Science

Contributors:

St. Michael's Neuroscience
Research Program

Toronto Western Research
Institute

Collaborative Program in Neuroscience (CPIN) University of Toronto

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2015-16 CPIN Distinguished Lectureship Series (contd.)

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



Speaker | **Dr. Jack Feldman**, Distinguished Professor, Neurobiology, David Geffen School of Medicine, University of California, Los Angeles

Title | *Cracking the neural code for breathing behaviour*

Date | **Monday, September 21, 2015**

Time | 5:30 pm

Location | Rm. 2172, Medical Sciences Building, 1 King's College Circle, U of T

Host | Dr. Michael Fehlings, Professor & Vice Chair of Research, Department of Surgery, U of T

Co-sponsors | (i) Dr. Michael Fehlings, Co-Director, U of T Spine Program; Head, Spine and Spinal Cord Injury Program; Senior Scientist, McEwen Centre for Molecular Medicine, Toronto Western Hospital,

University Health Network; (ii) U of T Spine Program



Speaker | **Dr. Milos Pekny**, Professor, Department of Clinical Neuroscience and Rehabilitation; Director, Laboratory of Astrocyte Biology and CNS Regeneration, Center for Brain Repair and Rehabilitation (CBR), Institute of Neuroscience and Physiology, Sahlgrenska Academy, University of Gothenburg, Sweden

Title | *Reactive astrocytes and their role in neurological diseases and CNS regeneration*

Date | **Wednesday, September 23, 2015**

Time | 12:00 pm

Location | Rm. 2172, Medical Sciences Building, 1 King's College Circle, U of T

Hosts | (i) Dr. Andras Nagy, Professor, Department of Obstetrics & Gynaecology and Institute of Medical Science, U of T; Senior Scientist, Samuel Lunenfeld Research Institute, Mount Sinai Hospital; (ii) Dr. Cindi

Morshead, Professor, Department of Surgery and Institute of Medical Science; Chair, Division of Anatomy, U of T

News - CPIN Faculty Members

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



Congratulations to **Dr. Sandra Black** (Professor, Departments of Medicine, Rehabilitation Science, Institute of Biomaterials and Biomedical Engineering and the Institute of Medical Science) on being recently appointed as an Officer of the Order of Canada.

Sandra Black, MD, FRCP(C) is an internationally renowned cognitive and stroke neurologist who holds the inaugural Brill Chair in Neurology, Department of Medicine, University of Toronto and Sunnybrook Health Sciences Centre. A leading clinical trialist in dementia, she is the current Executive Director of the Toronto Dementia Research Alliance (<http://www.tdra.ca/>), a multi institutional collaborative network at the University of Toronto.

She is also the Sunnybrook Site Director of the Heart & Stroke Foundation Canadian Partnership for Stroke Recovery (<http://www.canadianstroke.ca/en/>) and the Hurvitz Brain Sciences Research Program Director at Sunnybrook Research Institute. In 2011 she was named to the Order of Ontario, cited as an assiduous physician leader and influential architect of the Ontario Stroke System.

She has authored/ co-authored over 450 papers in a 25-year research career that has bridged dementia and stroke, using neuroimaging to study brain behavior relationships, with a recent focus on interactions of Alzheimer's and silent stroke disease. She has earned numerous mentorship and research awards, including election to the Royal Society of Canada in 2012. In July 2015 she was appointed an Officer to the Order of Canada for her contributions to Alzheimer's disease, stroke and vascular dementia.

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News - CPIN Faculty Members (contd.)

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



Congratulations to **Dr. James Rutka** (Professor & Chair, Surgery) on being recently appointed as an Officer of the Order of Canada.

Born in Toronto, and educated at Princeton University (1975-1977), and Queen's University Medical School (1977-1981), Dr. Rutka did an internship at McGill University (1981-1982) before entering the U of T Neurosurgery Training Program in 1982. His training included a research fellowship at the Brain Tumor Research Centre, the University of California San Francisco where he obtained his PhD in Experimental Pathology (1984-1987). Dr. Rutka did a clinical fellowship in microvascular neurosurgery with Dr Kenichiro Sugita at the University of Nagoya, and a post-doctoral research fellowship in molecular immunology at

Juntendo University, Tokyo (1990).

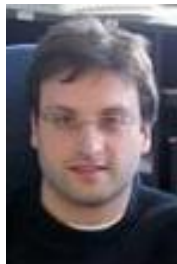
Dr. Rutka assumed his appointment in the Department of Surgery, Division of Neurosurgery in 1990, and has been on the surgical staff at the Hospital for Sick Children in the Division of Pediatric Neurosurgery since that time. Dr. Rutka's primary research and clinical interests relate to the science and surgery of human brain tumors. His recent clinical interests have centred on the surgical treatment of epilepsy in children. He has over 400 peer reviewed publications. In 1999, Dr. Rutka was promoted to Professor in the Department of Surgery, and was appointed Chairman of the Division of Neurosurgery at U of T. In 2011, he became a Fellow of the Royal Society of Canada, and the Canadian Academy of Health Sciences. In 2013, Dr. Rutka was inducted as a Member of the Order of Ontario, and became the first Canadian to be appointed as Editor-in-Chief of the Journal of Neurosurgery. In 2015, he received the Robert L. Noble Award from the Canadian Cancer Society.



Congratulations to **Dr. Michael Salter** (Professor, Physiology) on his new position as the Chief of Research at the Hospital for Sick Children in July, 2015.

Dr. Salter received his MD at the University of Western Ontario and his PhD from McGill University. After post-doctoral training at Toronto Western Hospital and the Samuel Lunenfeld Institute at Mt. Sinai Hospital he joined the Hospital for Sick Children (SickKids) in 1990. Presently, Dr. Salter is the Chief of Research, The Hospital for Sick Children and holds the Northbridge Chair in Paediatric Research. He is also a Senior Scientist, Program in Neurosciences & Mental Health at SickKids, and Professor in the Department of Physiology at the University of Toronto.

Dr. Salter is determining fundamental molecular and cellular mechanisms of normal and pathological neuroplasticity. His discoveries have broad implications for the control of cell-cell communication throughout the nervous system and his work has regularly appeared in elite journals including Nature, Science, Cell, Nature Medicine and Neuron. He is using his discoveries to design and test new types of treatment for individual suffering from a variety of disorders of the central nervous system (CNS). He is developing molecules that target major cell signalling pathways in neurons and in glial cells involved in pain, stroke, neurodegenerative diseases and schizophrenia. He has won numerous awards for his work, including an international scholar award from the Howard Hughes Medical Institute, and is a Fellow of the Royal Society of Canada.



Congratulations to **Dr. Vincent Tropepe** (Associate Professor, Cell and Systems Biology) on his new role as the Chair of the Department of Cell and Systems Biology at the University of Toronto in July, 2015.

Dr. Tropepe received his PhD in the Collaborative Program in Developmental Biology at the University of Toronto and then trained as a Postdoctoral Fellow at the Whitehead Institute for Biomedical Research (MIT), Cambridge, MA. He established his research program at U of T in 2003 and his lab focuses on vertebrate neurogenesis. One area of research utilizes molecular genetic techniques to investigate the transcriptional and post-transcriptional regulatory mechanisms that control stem cell behaviour in the developing and mature brain and retina.

His lab is also interested in how the various stages of the neurogenesis process can be altered as an adaptive response to sensorimotor experience both during development and in adulthood. Dr. Tropepe has received several awards for his research, including the Ontario Ministry of Research and Innovation Early Researcher Award, the Arch Award from the McMaster University Alumni Association, and the Dean's Excellence Award in the Faculty of Arts and Science. In addition to his membership in CPIN, he is also a member of the Ontario Institute for Regenerative Medicine and is cross-appointed to the Department of Ophthalmology and Vision Sciences in the Faculty of Medicine.

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

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News - CPIN Faculty Members (contd.)

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



Congratulations to **Dr. Melanie Woodin** (Associate Professor, Cell and Systems Biology) for assuming the role of Director of the Human Biology Program at the University of Toronto in July, 2015.

Dr. Woodin performed her training in Neuroscience at the University of Calgary, and the University of California Berkeley. She established her research program in Toronto in 2004, and her lab is focused on understanding how the brain balances neuronal activity, with a specific focus on synaptic inhibition. Dr. Woodin uses a combination of electrophysiology, biochemical, imaging, and proteomic approaches to discover the functional role of inhibitory synaptic transmission and plasticity in behaviour, including learning and memory.

Dr. Woodin is a current Board member of the Canadian Association of Neuroscience, and serves on the Collaborative Program in Neuroscience Academic Program Committee. She was recently awarded the Hotchkiss Brain Institute Neuroscience Alumnus of the Year award from the University of Calgary.

News - CPIN Students

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



Congratulations to CPIN student member **Stefanie Hutka** (Department of Psychology, Co-supervisors Dr. Claude Alain and Dr. Randy McIntosh) on recently completing the CPIN requirements and graduating from her PhD Program.

Dr. Hutka's dissertation work was conducted in the field of auditory cognitive neuroscience. Specifically, she examined how different types of experience with pitch processing (e.g., music training; speaking a tone language) are differentially associated with perception and cognition. During her graduate studies, Dr. Hutka published eight peer-reviewed articles, in journals such as *Neuropsychologia* and *The Journal of the Acoustical Society of America*. She has also presented her work at eight international academic conferences and workshops, and delivered public guest lectures on her field at the Ontario Science Centre.

Dr. Hutka has been awarded competitive national and provincial grants spanning the duration of her graduate studies, from sources including the National Sciences and Engineering Research Council and the Ontario Graduate Scholarship. Dr. Hutka also holds an ARCT in Violin Performance from the Royal Conservatory of Music; this musical background has helped cultivate her research interests related to auditory processing and experience-dependent plasticity.

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Select Publications:

Hutka, S., Bidelman, G. M., & Moreno, S. (2015). Pitch expertise is not created equal: Cross-domain effects of music and tone language experience on neural and behavioural discrimination of speech sounds. *Neuropsychologia*, 71, 52-63. doi: 10.1016/j.neuropsychologia.2015.03.019

Hutka, S., Binns, M., Bidelman, G. M., & Alain, C. (2013). Age-related differences in the perceptual organization of speech sounds. *The Journal of the Acoustical Society of America*, 133(6), 4177 – 4187. doi: 10.1121/1.4802745

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

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

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Welcome New CPIN Students

Surname	First Name	Home Unit	Degree	Supervisor
Adams	Kelsey	IMS	MSc	Cindi Morshead
Aquilino	Mark	IBBME	MASc	Peter Carlen
Baarbe	Julianne	IMS	PhD	Robert Chen
Cassiani	Celia-Marie	REHSC	MSc	Sally Lindsay
Chatzikalymniou	Alexandra	PSL	MSc	Frances Skinner
Cheung	Stephanie	IBBME	PhD	Elaine Biddiss/Joyce Chen
Christopher	Sophia	MUS	MA	Lee Bartel
Da Silva	Tania	IMS	MSc	Romina Mizrahi
Duane	Shannon	MUS	MA	Lee Bartel
Fettes	Peter	IMS	MSc	Jonathan Downar
Grykuliak	Kevin	MBP	MSc	Kullervo Hynynen
Hong	James	IMS	PhD	Michael Fehlings
Hung	Shih-Ping	IMS	MSc	Mojgan Hodaie
Kaarto	Cynthia	MUS	MA	Lee Bartel
Kaneshwaran	Kirusanthy	PSL	MSc	Beverley Orser
Lakshman	Nishanth	IMS	MSc	Cindi Morshead
Lauby	Samantha	CSB	PhD	Patrick McGowan
Miyata	Tsukiko	MBP	MSc	Jim Woodgett
Peters	Sarah	IMS	MSc	Jonathan Downar
Qian	Winnie	IMS	MSc	Tom A. Schweizer
Saumur	Tyler	REHSC	MSc	George Mochizuki
Sereshkeh	Alborz Rezazadeh	IBBME	PhD	Tom Chau
Shakil	Husain	PSL	MSc	Steven Prescott
Tan	Wendy	BCM	MSc	Angus McQuibban
Vuong	Veronica	MUS	MA	Lee Bartel
Wang	Xinzhu	LMP	MSc	Gerold Schmitt-Ulms
Xhima	Kristiana	LMP	MSc	Isabelle Aubert
Yuk	Veronica	PSY	PhD	Margot Taylor

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Neuroscience Opportunities

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

Postdoctoral Position

Department of Physiology, University of Toronto
Toronto, Canada

Description: A Postdoctoral fellow position in the Department of Physiology, Laboratory of Dr. J. M. Wojtowicz is available immediately. Our group conducts research on adult neurogenesis in the rodent brain focusing on quantitative measurement of neurons within the hippocampus of laboratory animals. Research is often collaborative among several researchers at the UofT and elsewhere.

The duties would involve animal handling, intracardiac perfusions and biochemical or radioimmunoassays; immunohistochemical staining of brain tissue, stereological counting and optical imaging using fluorescence and confocal microscopy. Documented experience will be beneficial.

Apply by email directly to: martin.wojtowicz@utoronto.ca. Attach your CV, statement of interest and contact information of three referees.

Assistant Professor Positions

Carleton University
Ottawa, Canada

Description: The Neuroscience department at Carleton is currently looking to hire Assistant Professors:

1. The Department of Neuroscience invites applications from qualified candidates for a tenure-track appointment in Neuroscience and Mental Health at the rank of Assistant Professor beginning July 1, 2016. For further information, please see the web link: [Department of Neuroscience \(Neuroscience and Mental Health\) – Assistant Professor](#)

2. The Department of Neuroscience invites applications from qualified candidates for a tenure-track appointment in Neuroscience and Mental Health at the rank of Assistant Professor beginning July 1, 2016. The successful applicant will be nominated for a Tier 2 NSERC Canada Research Chair (<http://www.chairs.gc.ca/>) in Neuroscience and Mental Health. For further information, please see the web link: [Department of Neuroscience \(NSERC CRC Tier 2 in Neuroscience and Mental Health\) – Assistant Professor](#)

Reminders

Volunteer Opportunity at the 2016 Toronto Brain Bee CPIN Faculty and trainee members are invited to volunteer at the **18th Annual Toronto Brain Bee** that will be held on **Friday, April 1, 2016** at the University of Toronto. Please fill out the online volunteer form at <http://www.neuroscience.utoronto.ca/events/brainbee.htm>

Submissions for News Updates The CPIN Office requests trainee and faculty members to submit updates in research discoveries, events, and other achievements involving CPIN members. Please send your submissions to p.neuroscience@utoronto.ca

Trainee Record Updates The CPIN Office is currently updating its records & requests that all CPIN students & postdoctoral fellows provide information pertaining to awards, publications & other achievements on the online form at the link below: http://www.neuroscience.utoronto.ca/students/Trainee_Awards_and_Publications_Form.htm

Faculty Profile Update The CPIN Office is looking to update the CPIN faculty member profiles on the website: <http://www.neuroscience.utoronto.ca/faculty/list.htm> If you wish to add or update your profile on the CPIN website, please contact the CPIN Office at p.neuroscience@utoronto.ca.

Neuroscience Opportunities The CPIN website now includes postings for available positions in the Toronto neuroscience community (http://www.neuroscience.utoronto.ca/communications/Positions_Available.htm). Please contact the CPIN Office at p.neuroscience@utoronto.ca to list your available positions.