

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

Featured In This Issue

Welcome New CPIN Students Please see page 5 for details.

News – CPIN Students Congratulations to CPIN student member **Diellor Basha** (Physiology, Hutchison lab) on recently completing the CPIN requirements. Please see page 3 for details.

Welcome New CPIN Faculty Members We would like to welcome **Dr. Dirk Bernhardt-Walther** (Psychology), **Dr. Phedias Diamandis** (LMP) & **Dr. Andrew Dimitrijevic** (Otolaryngology) to the CPIN community. Please see page 2 for details.

News – CPIN Faculty Members Congratulations also to **Dr. Carmela Tartaglia** (Medicine and IMS) on her new appointment. Please see page 3 for details.

• We would like to extend our best wishes to **Dr. Christopher Honey** (Psychology) on his move to the Department of Psychological & Brain Science at Johns Hopkins University.

2017 Toronto Brain Bee High school student participant registration is now open and CPIN member volunteer opportunities are available. Please see page 4 for details.

CPIN Undergraduate Mentorship Panel Event Report Please see page 4 for details.

CPIN Cortex Club Please see page 4 for details.

Neuroscience Opportunities Please see page 6 for details.

2016-17 CPIN Distinguished Lectureship Series

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



Speaker | **Dr. Kamil Uludag**, Associate Professor in the Faculty of Psychology & Neuroscience, Department of Cognitive Neuroscience, Maastricht Brain Imaging Center, Maastricht University
Title | *MR Imaging at 7 Tesla – prospects for clinical & neuroscience applications*
Date and Time | **Monday, October 17, 2016, 1:00 pm**
Location | Main Auditorium, West Wing, 2nd floor, Rm. 401, Toronto Western Hospital
Host | Dr. Michael Fehlings, Professor, Department of Surgery, U of T
Co-sponsors | (i) Krembil Research Institute; (ii) Techna Institute, University Health Network



Speaker | **Dr. Elek Molnár**, International Director, Faculty of Biomedical Sciences; Professor of Neuroscience, Centre for Synaptic Plasticity, School of Physiology, Pharmacology and Neuroscience, University of Bristol, UK
Title | *Kainate receptors in the central nervous system and in the endocrine pancreas*
Date and Time | **Thursday, November 17, 2016, 4:00pm**
Location | Rm. 2170, Medical Sciences Building, 1 King's College Circle, U of T
Host | Dr. Graham Collingridge, Chair & Professor, Department of Physiology, U of T
Co-sponsor | Department of Physiology EDGR and Neuroscience Platforms, U of T



Speaker | **Dr. Claes Hultling**, Spinalis SCI Unit, Karolinska Institute, Stockholm
Title | *New front for injured backs*
Date and Time | **Friday, November 18, 2016, 4:50 pm**
Location | Room ABC, BMO Education & Conference Centre, Krembil Discovery Tower, 60 Leonard Ave., Toronto Western Hospital
Host | Dr. Michael Fehlings, Head, Spinal Program, UHN & Vice Chair Research, Dept. of Surgery, U of T
Co-Sponsors | (i) UHN; (ii) Krembil Neuroscience Centre; (iii) U of T Spine Program; (iv) the Spinal Cord Injury Research Unit; (v) the DeZwirek Family; (vi) Barbara Turnbull Foundation

Note: The Charles Tator-Barbara Turnbull Spinal Cord Injury Symposium will run from 12:15 – 5:45 pm on Fri. Nov 18th. CPIN students are most welcome to attend all/part of the Symposium

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

CPIN Newsletter

Zhong-Ping Feng
Director
CPIN
Graduate Studies

Suhail Asrar
Administrator
CPIN Office

CPIN Office
p.neuroscience@utoronto.ca
Tel.: 416 978 8637

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
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

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

News - CPIN Faculty Members

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



We would like to welcome **Dr. Dirk Bernhardt-Walther** (Assistant Professor, Psychology) as a new faculty member to the CPIN community.

Having been trained as a physicist and computer scientist, Dirk Bernhardt-Walther earned a Ph.D. in Computation and Neural Systems at the California Institute of Technology in 2006, working with Christof Koch on modeling visual attention and object recognition. After a few months with John Tsotsos at York University in Toronto he became a Beckman Postdoctoral Fellow at the Beckman Institute at the University of Illinois at Urbana-Champaign. There he worked with Diane Beck and Fei-Fei Li on natural scene perception and on decoding natural scene categories from fMRI data. From 2010 until 2014 Dirk was an Assistant Professor of Psychology and from 2012 until 2014 Associate Director of the Center for Cognitive and Brain Sciences at The Ohio State University. In 2014 he moved to the University of Toronto, where he is now Assistant Professor at the Department of Psychology. In his work Dirk aims to decipher the neural mechanisms that underlie the perception of complex real-world scenes. He also works on advancing methods for multivariate analysis of neuroimaging data.



We would like to welcome **Dr. Phedias Diamandis** (Assistant Professor, Laboratory Medicine and Pathobiology) as a new faculty member to the CPIN community.

Dr. Diamandis completed his Doctoral, Medical and Residency training in Neuropathology at the University of Toronto. He carried out his PhD work under the mentorship of Professors Peter Dirks and Mike Tyers in neural stem cell and cancer stem cell biology. By harnessing the chemical diversity housed within small molecule libraries, they were able to uncover novel regulators of neural and cancer stem cell function.

Outside of work, he enjoys spending time with family and playing sports including tennis and running. His research program focuses on leveraging clinical neuropathology expertise and resources to develop novel approaches to the understanding of neurological diseases. This includes strategic application of contemporary and comprehensive molecular tools to neurobiology, neuroanatomy and human disease. His most recent large scale efforts have focused on mass spectrometry based proteomic methods to profile human neural tissue and expand our understanding of cancer and neurodevelopment. They use the generated datasets as a springboard for more focused mechanistic studies and novel biomarker discovery of neuropathological diseases. His is a new and growing group. His current research team consists of a post-doctoral fellow and research collaborators. They are looking to expand to include highly motivated undergraduate students, graduate students and skilled technologists with an interest in neurosciences. Their collaborative partnerships provided access to a complete array of state-of-the-art machine and experienced personnel. The learning objectives for all trainees during their tenure includes acquisition of foundational knowledge of neuroanatomy, neurosciences, neuro-oncology and neuro-development as well as familiarization and novel application of contemporary molecular techniques in these fields.



We would like to welcome **Dr. Andrew Dimitrijevic** (Assistant Professor, Otolaryngology - Head and Neck Surgery) as a new faculty member to the CPIN community.

Dr. Dimitrijevic is an electrophysiologist currently at Sunnybrook Health Sciences Centre, Department of Otolaryngology. Prior to joining the UofT faculty he was a professor at Cincinnati Children's Hospital and the University of California, Irvine. Originally from Toronto, Dr. Dimitrijevic is a CPIN alumni. His graduate and undergraduate degrees are from the departments of physiology, zoology and IM with CPIN.

Dr. Dimitrijevic's lab studies the physiology of human hearing in both normal hearing and hearing impaired populations. He uses the encephalogram (EEG, aka "brain waves") to understand the neural mechanisms of how the brain processes sounds and leads to perception. Some areas of interest include: neural plasticity with training in people with cochlear implants, visual and auditory neural interactions, cognitive and music therapy, and the role of cognition in hearing.

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

News - CPIN Faculty Members (contd.)

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



Congratulations to **Dr. Carmela Tartaglia** (Assistant Professor, Medicine, Division of Neurology and the Institute of Medical Science) on being recently appointed as the Soloway Professor of Brain and Concussion Research as of July 1, 2016.

[Click here to view the official announcement](#)

Dr. Tartaglia received her medical degree from McGill University, completed her residency at the University of Western Ontario and did three years of clinical/research fellowship in Cognitive/Behavioral neurology at the University of California, San Francisco Memory and Aging Center.

She maintains a cognitive/behavioral clinic within the UHN Memory Clinic where she sees patients with neurodegenerative diseases with a focus on Frontotemporal lobar degeneration-related syndromes and post-concussion syndrome. She uses novel imaging techniques in conjunction with proteomics, pathology and genetics to better understand the pathological substrates that cause cognitive, behavioral and motoric dysfunction. She has an appointment in IMS and supervises numerous MSc students.

An emerging interest of Dr. Tartaglia is the role of concussion in dementia, both in athletes and in members of the general population. Her interest and growing expertise in this area is being developed in the Canadian Concussion Center. She runs parallel biomarker programs in frontotemporal lobar degeneration and post-concussion syndrome. She is leading a project on in vivo detection of possible chronic traumatic encephalopathy in former professional Canadian Football players. The ultimate goal of her research program is to develop biomarkers for early detection of disease so as to provide early treatments to her patients.

News - CPIN Students

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



Congratulations to CPIN student member **Diellor Basha** (Physiology, Supervisor Dr. William Hutchison) on recently completing the CPIN requirements and graduating from his MSc program.

Diellor Basha investigated oscillatory neuronal activity in the thalamus of movement disorders patients by using microelectrode recordings obtained during deep brain stimulation surgery. He authored three peer-reviewed publications, the first of which described the occurrence of 13-30Hz beta oscillations in the human motor thalamus – a novel phenomenon which had not been previously characterized (Basha et al., 2014).

Diellor also described for the first time the relationship between phantom limb percepts and the occurrence of 38Hz gamma oscillations in the human somatosensory thalamus. He won several awards, including the Greenville Neuromodulation Centre Scholarship as well as various travel grants.

Following his MSc work, Diellor will continue his research on thalamocortical oscillations at the lab of Dr. Igor Timofeev at Université Laval, Québec where he will investigate the role of sleep oscillations in the consolidation of newly-acquired memory.

MSc Thesis Title: *The characterization of beta oscillatory activity in the motor thalamus of essential tremor and Parkinson's disease patients*

Select Publications:

Basha D, Dostrovsky JO, Hodaie M, Lozano AM, Hutchison WD (2014). Beta oscillatory neurons in the human motor thalamus of movement disorder and pain patients. *Exp Neurol* 261:782-90.

Kon Kam King, N, Krishna V, **Basha D**, Elias G, Sammartino F, Hodaie M, Lozano A, Hutchison W (2016). Microelectrode recordings within tractography-defined Vim. *Journal of Neurosurgery* 22:1-7

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

2017 Toronto Brain Bee

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

The Toronto Brain Bee is a knowledge-based competition organized by CPIN for high school students in the GTA region. It tests the knowledge of the students in neuroscience. The original contest format was derived from the traditional Spelling Bee. **The 19th Annual Toronto Brain Bee** will be held on Friday, March 31, 2017 at the University of Toronto. **Please visit the Toronto Brain Bee webpage for participant registration and CPIN member volunteering information:**

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

CPIN Undergraduate Mentorship Panel Event Report

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

The CPIN Mentorship Program held its first event of the academic year on September 29, 2016. The event included a panel of CPIN graduate students who answered questions on the topics of the application process, supervisors and research, and the graduate experience. The Q&A session was followed by interactive networking between graduate and undergraduate students. The event was organized by the CPIN Mentorship Team: **Chantel Kowalchuk, Joe Steinman, Samantha Lauby, Stephanie Cheung and Ekaterina Turlova.**

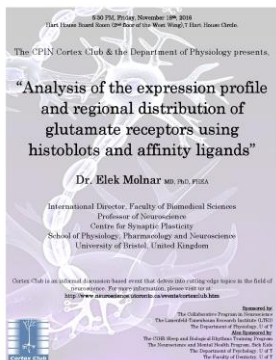
We would like to thank the graduate panelists (**Jordana Compagnone, Melissa Polonenko, Alexandre Boutet, Feiya Li, Kate Rzakdi, Chesahmia Dojo Soeandy and Dana Swarbick**) and graduate volunteers (**Ji-Sun Kim, Vivian Szeto and Ilan Vonderwalde**) for their participation and making this event a success! (*Event report by Ekaterina Turlova*).



Photo Credits: Dr. Zhong-Ping Feng & Ekaterina Turlova

CPIN Cortex Club

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



The CPIN Cortex Club & the Department of Physiology presents,
“Analysis of the expression profile and regional distribution of glutamate receptors using histoblots and affinity ligands”
Dr. Elek Molnar

International Director, Faculty of Biomedical Sciences
Professor of Neuroscience, Centre for Synaptic Plasticity
School of Physiology, Pharmacology and Neuroscience
University of Bristol, United Kingdom

5:30 PM, Friday, November 18th, 2016
Hart House Board Room (2nd floor of the West Wing), 7 Hart House Circle

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

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

Welcome New CPIN Students

Surname	First Name	Home Unit	Degree	Supervisor
Aguda	Vernie	CSB	MSc	Tod Thiele
Belchev	Zornitza	PSY	PhD	Asaf Gilboa
Beth Kowaleski	Julia	MUS	MA	Michael Thaut
Brasenell	Katie	BCM	MSc	Angus McQuibban
Bray	Michael	IMS	MSc	Mark Bayley
Cai	Sammy	PSL	MSc	Zhengping Jia
Cermak	Carly	REHSC	MSc	Deryk Beal
Cheng	Darren	REHSC	MSc	Nancy Salbach
Cohen	Dalya	PSL	MSc	Graham Collingridge
Cox	Elizabeth	PSY	MA	Donald Mabbott
Currie	Victoria	REHSC	PhD	Rosemary Martino
Ebrahim Amini	Azin	IBBME	MASc	Peter Carlan
Ebrahim Amini	Aeen	PSL	MSc	Graham Collingridge
Felcenloben	Monique	REHSC	MSc	Paulo Koeberle
Ghuznavi	Aamer	PSL	MSc	Philippe Monnier
Guilbeault	Nicholas	CSB	MSc	Tod Thiele
Hamer	Julia	IMS	MSc	Tom Schweizer
Hobler	Fiona	REHSC	PhD	Luc De Nil
Honarvar	Faraz	IMS	MSc	Andrea Kassner
Ing	Sonja	IBBME	MASc	Molly Shoichet
Islam	Farhana	PCL	PhD	Susan George
Jacobs	Grace	IMS	MSc	Aristotle Voineskos
Jacobson	Maya	PCL	MSc	Romina Mizrahi
Kang	Kyurim	MUS	PhD	Michael Thaut
Kang	Joorang	MUS	MA	Michael Thaut
Khan	Muhammad Saad	IMS	MSc	Romina Mizrahi
Kunaratnam	Nirsan	REHSC	MSc	Joyce Chen
Liu	Nancy	IMS	MSc	Cindi Morshead
Mackinnon	Chelsea	MUS	MA	Michael Thaut
Marlatte	Hannah	PSY	MA	Asaf Gilboa
Nag	Sudeshna	BCM	PhD	Angus McQuibban

Collaborative Program in Neuroscience (CPIN) University of Toronto

Newsletter – Vol. 33, No. 2 – October 2016

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

University of Toronto, Faculty of Medicine and the Krembil Research Institute presents the Anne & Max Tanenbaum Symposium on "Listening and Responding to the Brain: Neuroengineering and Epilepsy"

Event Date: November 2, 2016

BMO Education & Conference Centre, Krembil Discovery Tower, Toronto Western Hospital

Please visit the Conferences and Meetings webpage link above for further details

2016 Toronto ABI Network Conference

Event Dates: November 10 & 11, 2016

Toronto Marriott Downtown Eaton Centre Hotel

Please visit the Conferences and Meetings webpage link above for further details

15th Annual Charles H. Tator and Barbara Turnbull Spinal Cord Injury Symposium

Event Date: November 18, 2016

BMO Education & Conference Centre, Krembil Discovery Tower, Toronto Western Hospital

Please visit the Conferences and Meetings webpage link above for further details

SickKids NMH mini-symposia series: Maternal, fetal and environmental influences on the developing brain. A tribute to the research legacy of Dr Joanne Rovet

Event Date: December 2, 2016

Robert Salter Auditorium, Peter Gilgan Centre for Research and Learning, 686 Bay Street, Toronto

Please visit the Conferences and Meetings webpage link above for further details

Fifth Annual Symposium: Research on the Concussion Spectrum Disorders

Event Date: January 21, 2017

BMO Conference and Education Centre, Toronto Western Hospital

Please visit the Conferences and Meetings webpage link above for further details

2017 Traumatic Brain Injury Conference

Event Date: February 10, 2017

Toronto Marriott Downtown Eaton Centre Hotel

Please visit the Conferences and Meetings webpage link above for further details

Neuroscience Opportunities

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

Postdoctoral Fellow Position

University of Toronto, Toronto, Canada

Description: Position available for a postdoctoral fellowship to use microfluidics to study endogenous repair mechanisms in neural precursor cells. Candidates should have a strong background in neuroscience; we will teach the microfluidics. Interested candidates should contact Lisa Ngo at lt.ngo@utoronto.ca

For further information, please visit our website: http://www.neuroscience.utoronto.ca/communications/Positions_Available.htm

Reminders

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

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

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