

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 35, No. 3 – November 2018

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Welcome New CPIN Faculty We welcome **Dr. Jeehye Park** to the CPIN community. Please see page 2 for details.

News – CPIN Trainees Congratulations to CPIN student members **Julia Hamer, Danny Pan, Lee Propp, and Dana Swarbrick** on their accomplishments and recently completing their CPIN requirements. Please see page 4 and 5 for details.

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CPIN Undergraduate Mentorship: Grant Writing Workshop Report Please see page 3 for details.

2018-19 CPIN Distinguished Lectureship Series

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



Speaker | **Dr. Weihong Song**, MD, PhD, Professor and Canada Research Chair in Alzheimer's Disease (Tier 1), Department of Psychiatry, Associate Director, Institute of Mental Health, University of British Columbia
Title | *Dysregulation of BACE1-mediated APP processing in Alzheimer's Disease*
Date | **Friday, November 16, 2018, 2:00 pm**
Location | Room MSB 2172, Medical Sciences Building, University of Toronto, 1 King's College Circle
Host | Dr. Zhong-Ping Feng, Professor, Department of Physiology, Director, Collaborative Program In Neuroscience, U of T



Speaker | **Dr. Bo Li**, Professor, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
Title | *Ventral pallidal neurons in reward approach and punishment avoidance*
Date | **Wednesday, November 21, 2018, 4:00 pm**
Location | Room BA1160, Bahen Centre for Information Technology, University of Toronto, 40 St. George Street
Hosts | 1) Dr. Kaori Takehara-Nishiuchi, Associate Professor, Department of Psychology, U of T; 2) Dr. Laura Corbit, Assistant Professor, Department of Psychology, U of T
Co-sponsor | Department of Psychology Brain & Behaviour Seminar Series, U of T

Reminder: CPIN Trainees: Please fill in the online Lecture Report & Evaluation Form as a record of your attendance to the Distinguished Lectureship Series within one week of attending the talk.

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. We are looking for speakers of diverse background and in particular female speakers.

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

CPIN Newsletter

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CPIN
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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
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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News - CPIN Faculty Members

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



Congratulations to **Professor Beverley Orser** on being elected to the National Academy of Medicine.

From the Faculty of Medicine News pages:

“Orser, a professor of physiology and chair of the Department of Anesthesia, was chosen for her groundbreaking discoveries around anesthesia and memory impairment.

The Academy’s 2,178 members provide independent advice and analysis to support public health and medicine in the United States. Members are elected on the basis of outstanding professional achievement and commitment to service. The two medical researchers join five existing members from U of T, including former President C. David Naylor.

Orser, who is also Co-Director of Research in the Department of Anesthesia at Sunnybrook Health Sciences Centre, recently spoke with writer Heidi Singer about the honour, and her research.”

To read the full interview, please click:

<https://medicine.utoronto.ca/news/two-university-toronto-faculty-elected-national-academy-medicine>

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

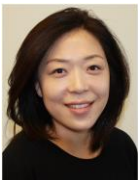
Facebook: <https://www.facebook.com/Collaborative-Program-in-Neuroscience-212564644049/>

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

Twitter: https://twitter.com/CPIN_UofT

Welcome New CPIN Faculty Members

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



We would like to welcome **Dr. Jeehye Park** (Assistant Professor, Department of Molecular Genetics, University of Toronto; Scientist, Genetics and Genome Biology Program, Hospital for Sick Children) as a new faculty member to the CPIN community.

Park lab currently focuses on studying the molecular mechanism of a neurodegenerative disease, amyotrophic lateral sclerosis, utilizing a multi-disciplinary approach including biochemistry, molecular cell biology and fly and mouse genetics to ultimately improve understanding of the disease and develop therapeutic strategies.

Park lab is also interested in understanding the molecular mechanism of neuronal development, maintenance and aging. Dr. Park received PhD from Jongkyeong Chung lab at Korea Advanced Institute of Science and Technology (Daejeon, South Korea), where she studied the molecular mechanism of Parkinson’s disease. She completed postdoctoral training in Huda Zoghbi lab at Baylor College of Medicine (Houston, USA) and studied spinocerebellar ataxia type 1.

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

<http://www.neuroscience.utoronto.ca/students/currentstudents.htm>

Last Name	First Name	Home Unit	Degree	Supervisor
Abbasian	Aram	PSL	PhD	Dr. Graham Collingridge
Ayoub	Ramy	MBP	PhD	Dr. Brian Nieman
Bouffard	Nichole	PSY	MA	Dr. Morgan Barense, Dr. Morris Moscovitch
Dawson	Victoria	CSB	MSc	Dr. Kaori Takehara-Nishiuchi, Dr. Junchul Kim
Di Raddo	Marie-Eve	PCL	MSc	Dr. Susan George
Golbabaei	Ali	IMS	PhD	Dr. Paul Frankland
Gumus	Melisa	IMS	MSc	Dr. Maria Carmela Tartaglia
Haffey	Kimberly	MUS	MA	Dr. Michael Thaut
Karpazis	Anna	MUS	PhD	Dr. Michael Thaut
Khan	Zahra	IMS	MSc	
Koek	Laura	PSL	PhD	Dr. Graham Collingridge
Lee	Jinyeol	PSL	PhD	Dr. Graham Collingridge
Mak	Jordan	PSL	MSc	Dr. Anne Wheeler
Odenwald	Nicole	PSY	MA	Dr. Maithe Arruda-Carvalho
Propp	Lee	APHD	PhD	Dr. Anne-Claude Bedard
Saberbaghi	Azita	PSL	PhD	Dr. Zhong -Ping Feng
Sommer	Rosa	IMS	MSc	Dr. Andrew Lim

CPIN Undergraduate Mentorship: Grant Writing Workshop

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

The CPIN Undergraduate Mentorship Program hosted its second event of the year, the **Grant Writing Workshop**, on Wednesday, November 21, 2018. The workshop was open to all students interested in learning more about the graduate application process, and was held from 4 – 5 pm at University College (Room 152). Executive members **Aeen Amini**, **Jon Chio**, **Chantel Kowalchuk**, **Claire McSweeney**, **Joe Steinman**, **Anna Vasilevskaya**, **Raymond Wong**, and **Marija Zivcevska** contributed to the preparation and execution of this event.

The Workshop kicked off with a brief presentation by **Claire**, **Marija**, and **Anna** that introduced the sources of available funding for undergraduate students applying to graduate school, and how to structure research proposals. Students were encouraged to come with rough drafts of their proposals. In the following interactive session, students divided into small groups to discuss their proposals with one of the Executive members. Students who did not prepare a draft proposal used this opportunity to have their specific graduate school questions answered.

An assortment of refreshments, prepared by **Aeen**, was served. The Workshop was well-received, with the majority of students staying past the official ending time of 5 pm. It was a great event for the Mentorship Program to wrap up Fall 2018!

(Event report by Raymond Wong)

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

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News - CPIN Trainees

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



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

Julia's research focused on understanding sex differences in sport-related concussion. Julia recruited 138 varsity athletes from the University Toronto and using an advanced neuroimaging technique called Arterial Spin Labelling, conducted the first study evaluating sex differences in cerebral blood flow for athletes with a history of concussion. Julia has presented her research at five conferences (including 2 oral presentations)

and has submitted her research for publication in the Journal of Neurotrauma.

During her MSc studies, Julia was recipient of the Canadian Graduate Scholarship and was involved in several leadership activities including: Chair of the Young Person's Cabinet for Women's Brain Health Initiative, Director of Sports for the Institute of Medical Science Student Association, Director of Community Outreach for the St. Michael's Hospital Research Student Association, an executive member of Brain Waves U of T, and a mentor for the Collaborative Program in Neuroscience mentorship program. Julia also developed her own educational platform called The Fit Brain series to teach others about brain health. Julia will commence the Doctor of Medicine program at the University of Sydney in 2019. Her goal is to become a clinician-scientist.



Congratulations to CPIN student member **Danny Pan** (Institute of Medical Science, Supervisor Dr. Roger S. McIntyre) on recently completing the CPIN requirements and graduating from his MSc program.

Danny's research at the Mood Disorders Psychopharmacology Unit (MDPU) focused on exploring the interplay between cognition, inflammation, and mood disorders. Mood disorders such as depression are chronic, progressive, and have elevated rates of morbidity and recurrence. Over the course of his master's education, Danny has published 18 peer-reviewed articles, two of which are first author, and elucidated relationships

between cognition, mood, anhedonia, inflammation, and metabolic disturbances on various aspects of functional recovery in depression. His master's thesis explored the effects of infliximab, an adjunctive anti-inflammatory agent, on the treatment of cognitive dysfunction in individuals with bipolar depression.

Danny is the recipient of the CIHR Canada Graduate Scholarship, the Peter F. Bronfman Gold Scholarship, and numerous other travel awards and fellowships. Danny also founded the campus student organization Project 42 to raise funds and awareness for mental health care in the Greater Toronto Area.

Danny's research and contributions have strengthened the link between metabolic and mood disorders, provided the basis for future interventional approaches targeting metabolic and inflammatory systems in depression, and stimulated discourse in depression treatment and management.



Congratulations to CPIN student member **Lee Propp** (Applied Psychology and Human Development, Supervisor Dr. Anne-Claude Bedard) on recently completing the CPIN requirements and graduating from her MA program.

Lee is pursuing her graduate training in School and Clinical Child Psychology in the Department of Applied Psychology and Human Development at OISE. Her Master's research, conducted at the Centre for Addiction and Mental Health (CAMH) under the co-supervisor of Drs. Brendan Andrade and Anne-Claude Bedard, used Latent Class Analysis to distil heterogeneity and refine subgroup classification of Disruptive Behaviour

Disorders (DBD) in children using dimensions of neuropsychological functioning and psychopathology. Over the course of her MA, Lee co-authored publications in Child Psychiatry and Human Development and PLoS One and presented her research at the Canadian Psychological Association and the Society for Research in Child Development conferences - and numerous departmental research days. Lee's Master's research was funded by the Frederick Banting and Charles Best Canadian Institutes of Health Research (CIHR) Canada Graduate Scholarships and an OISE Fellowship; her doctoral work is currently being funded by an Ontario Graduate Scholarship. For her doctoral work, Lee plans on extending her line of research by investigating brain-based biomarkers of DBD and related disorders.

Recently, Lee published a lovely first-person [article](#) in the Globe and Mail, in which she honestly and openly shares her experience living with ADHD and how a diagnosis changed her self-image.

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

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News - CPIN Trainees

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



Congratulations to CPIN student member **Dana Swarbrick** (Rehabilitation Science, Supervisor Dr. Joyce Chen) on recently completing the CPIN requirements and graduating from her MSc program.

Dana's research interests lie at the intersection of music, neuroscience, and exercise. Previous research demonstrated that high-intensity exercise increases neuroplasticity and consolidation of simple, lab-based motor learning tasks. Under the supervision of Dr. Joyce Chen, she explored the question of whether high-intensity exercise could similarly promote complex, real-world learning such as that required to learn a piano melody. For this research, Dana received the NSERC Canadian Graduate Scholarship. Dana has two articles in preparation.

Her involvement with CPIN included mentoring undergraduate students and delivering lectures to high school students for Neurosci101. She delivered a guest lecture for Humber College's jazz program and was an active member of the University of Toronto as teammate on the Varsity Rowing Team, co-chair of the Rehabilitation Sciences Institute's research day committee, editor for rehabINK, and member of the Hart House's vocal jazz choir, Onoscatopoeia. Outside of studies, Dana is a singer-songwriter who performs around the GTA. Dana was awarded an exchange grant from the Canadian Partnership for Stroke Recovery. After submitting her thesis, she travelled to the west coast to learn more about community-based rehabilitation with Dr. Janice Eng and Dr. Marie-Louise Bird at UBC and to intern at the Canadian Sport Institute.

Congratulations CPIN Graduating Students

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



Name: Farinaz Ghodrati

Program: MSc

Department: Laboratory Medicine and Pathobiology

Supervisor: Dr. Gerold Schmitt-Ulms

Thesis Title: The Prion Protein is Embedded in a Molecular Environment that Modulates Transforming Growth Factor β and Integrin Signaling



Name: Patrick Ji

Program: MSc

Department: Institute of Medical Science

Supervisor: Dr. Carol Westall

Thesis Title: Investigating the reliability and clinical utility of minimally-invasive portable electroretinography and optical coherence tomography techniques in children undergoing vigabatrin therapy



Name: Brenda Varriano

Program: MSc

Department: Institute of Medical Science

Supervisor: Dr. Carmela Tartaglia

Thesis Title: The prevalence of vestibular and cognitive impairment in seniors experiencing falls and a feasibility study on a vestibular rehabilitation program in seniors with falls, vestibular impairment and cognitive impairment



Name: Ashley Zhang

Program: MSc

Department: Laboratory Medicine and Pathobiology

Supervisor: Dr. Janice Roberston

Thesis Title: Relationship between TAR DNA-Binding Protein 43 Phosphorylation and Stress Granules: Implications for Amyotrophic Lateral Sclerosis

Congratulations CPIN Graduating Students (continued)

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

Last Name	First Name	Home Unit	Degree	Supervisor
Jacobson	Maya	PCL	MSc	Dr. Romina Mizrahi
Miles	Amy	IMS	PhD	Dr. Allan Kaplan

CPIN Student Completion Form CPIN graduate students who have completed both their home department and CPIN trainee requirements must fill in the online completion form located at the link below:

http://www.neuroscience.utoronto.ca/students/cpin_student_completion_form.htm

NeuroSci101 2018-2019

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

With the goal of promoting neuroscience interest among secondary school students and helping them prepare for the upcoming 2019 Toronto Brain Bee, CPIN organizes a free neuroscience course (**NeuroSci 101**) held on the St. George campus at the University of Toronto. Formerly known as Neuroscience Enrichment Program, NeuroSci 101 is an annual series of 14 lectures taught by CPIN graduate trainees, post-doctoral fellows and faculty members. The winter session lectures are delivered by **Professor William Ju (Human Biology)**, **Natasha Talwar (MSc candidate, IMS)**, **Shahin Khodaei (PhD candidate, Physiology)**, **Sridevi Venkatesan (MSc candidate, Physiology)**, **Eric Salter (PhD candidate, Physiology)**, **Sally Abudiab (MSc candidate, Rehabilitation Science)**, **Kairavi Shah (PhD candidate, IMS)**. Lecture topics include multiple facets of neuroscience research; ranging from neuroanatomy, sensory systems, neurodegenerative conditions to imaging techniques.

This year, NeuroSci101 is coordinated by **Jonathon Chio (PhD candidate, IMS)**, **Dipa Chatterjee (MSc candidate, Pharmacology)** and **Julia Bandura (PhD candidate, Physiology)** with support from CPIN staff **Iulia Park (CPIN Administrator)** and **Dr. Zhong-Peng Feng (CPIN Director)**. Beginning at the start of November 2018, the program is attended by 70 students from various secondary schools in the Greater Toronto Area. The Organizing Committee looks forward to another successful session of NeuroSci 101!

(Event report by Jonathon Chio)



(NeuroSci101 Photos credits: Julia Bandura, Zhong-Ping Feng)