

# Collaborative Program in Neuroscience (CPIN)

## University of Toronto

Newsletter – Vol. 34, No. 8 – April 2018

### Featured In This Issue

**2018 CPIN Research Day & Mental Health symposium (updates)** has been set for Thursday, June 14 at the U of T Medical Sciences Building. Registration and abstract submission is now open! Please see page 3 for details.

**2018 Toronto Brain Bee** was held on Thursday, April 12, 2018 at the University of Toronto Sandford Fleming Building. 106 students from 27 high schools in the Toronto area took part in the competition. Please see Pages 3-5 for the event report.

**News - CPIN Faculty and trainee members** Congratulations to CPIN student **Ina Anreiter** (PhD, Sokolowski Lab) and **Dr. Marla Sokolowski** (Professor, CSB) for their recent publication at *PNAS*, which has been awarded a 2018 Brain Star Award from CIHR – Institute for Neuroscience, Mental Health and Addiction to Ina. Please see page 2 for details.

**Welcome New Faculty Members** - We would like to welcome **Dr. Yun Li** (Scientist, Sickkids; Assistant Professor, Molecular Genetics) as a new faculty member to the CPIN community. Please see page 2 for details.

### 2017-18 CPIN Distinguished Lectureship Series

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

#### 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



Speaker | **Dr. Pierre Leopold**, Group Leader, IBV, Nice, France; Research Director, INSERM, France

Title | *Coordination of Organ Growth*

Date | **Friday, May 18, 2018**

Time | 12:00 pm

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

Host | Dr. Marla Sokolowski, University Professor, Ecology and Evolutionary Biology and Cell and Systems Biology, U of T



Speaker | **Dr. John Isaac**, Senior Director, Neuroscience, J&J London Innovation Centre, London, UK; Adjunct Professor, Department of Physiology, U of T

Title | *TBA*

Date | **Monday, June 4, 2018**

Time | 12:00 pm

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

Host | Dr. Graham Collingridge, Chair and Professor, Department of Physiology, U of T

Co-sponsor | Department of Physiology, U of T



#### CPIN Newsletter

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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

# Collaborative Program in Neuroscience (CPIN) University of Toronto

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

## News - CPIN Trainee and Faculty Members

[http://www.neuroscience.utoronto.ca/communications/news\\_cpin\\_students.htm](http://www.neuroscience.utoronto.ca/communications/news_cpin_students.htm)



(Ina Anreiter)



(Prof. M Sokolowski)

Congratulations to **Ina Anreiter** (PhD student, Sokolowski lab) and **Dr. Marla Sokolowski** (Professor, CSB) for their recent publication in the *Journal of Proceedings of the National Academy of Sciences of the United States of America (PNAS)* (Anreiter *et al*, PNAS, 2017).

CPIN PhD student **Ina Anreiter** has been awarded a **2018 Brain Star Award** from the CIHR-Institute for Neuroscience, Mental Health and Addiction valued at \$1500. The award was given in recognition of the excellence of the paper that Ina published in 2017 (Anreiter *et al*, PNAS, 2017) under **Professor Marla Sokolowski's** supervision. Congratulations, Ina.

Ina's work provides an improved understanding of the molecular mechanisms underlying the remarkable variability in behaviour among individuals of the same species. The paper shows that distinct foraging behavioural strategies in *D. melanogaster* are achieved by the interaction of epigenetic regulation and underlying genetic differences. This is a novel finding, since genetics and epigenetics have mostly been treated as independent mechanisms, and little is known about the interaction of the two. Both the epigenetic regulator *G9a* and its target gene *foraging* (a protein kinase) have conserved functions in humans with wide implications in human health and disease, such as the regulation of behaviour, metabolism, and cognitive functions. The paper can be found at (<https://doi.org/10.1073/pnas.17110770114>) and more about this study can be read in the commentary "Epigenetic switch turns on genetic behavioural variations" in PNAS (<https://doi.org/10.1073/pnas.1717376114>), and in the news article "An epigenetic key to unlock behaviour change" (<https://www.cifar.ca/assets/epigenetic-key-unlock-behaviour-change/>).

## Welcome New CPIN Faculty Members



We would like to welcome **Dr. Yun Li** (Scientist, Sickkids; Assistant Professor, Department of Molecular Genetics) as a new faculty member to the CPIN community.

Dr. Li is a Scientist at the Sickkids and an Assistant Professor at the Department of Molecular Genetics. After obtaining her B.Sc. in Biology at Wuhan University, Dr. Li pursued Ph.D. study at the University of Texas Southwestern Medical Center in Dallas. She trained in the laboratory of Dr. Luis Parada and studied the role of neurotrophins in regulating the development and function of the adult mouse brain. Dr. Li then joined the Whitehead Institute and the Massachusetts Institute of Technology in Cambridge to conduct postdoctoral research in the laboratory of Dr. Rudolf Jaenisch. She generated *in vitro* models of human neural development and diseases using novel 2D cellular culture and 3D brain organoids. Dr. Li's

work there included studying Rett Syndrome in gene edited human neurons (Li *et al*. *Cell Stem Cell* 2013), and creating 3-dimensional brain organoids with complex structure and human-specific features (Li *et al*. *Cell Stem Cell* 2017).

Dr. Li started her laboratory at SickKids in 2018, and is an Assistant Professor in the Department of Molecular Genetics at the University of Toronto. Her laboratory is interested in understanding how the human brain forms, what makes it unique from that of other species, and how disorders like autism impact its development and function. She takes the experimental approach of modeling human brain development in the dish, utilizing a combination of pluripotent stem cell technology, CRISPR/Cas9-mediated genome editing, and 3D organoid cultures.

<http://www.sickkids.ca/AboutSickKids/Directory/People/L/yun-li-staff-profile.html>

# Collaborative Program in Neuroscience (CPIN) University of Toronto

Newsletter – Vol. 34, No. 8 – April 2018

## 2018 CPIN Research Day & Mental Health Symposium (Updates)

CPIN Research Day has been set for **Thursday, June 14** at the Medical Sciences Building at U of T.

**The online registration** is now open to CPIN Faculty and trainee members, and none-CPIN members ([http://www.neuroscience.utoronto.ca/events/CPIN\\_Research\\_Day.htm](http://www.neuroscience.utoronto.ca/events/CPIN_Research_Day.htm)).

The deadline for the poster abstract submission is **Monday, May 21**.

For faculty members who will be available to serve as the **Judge for the student poster presentations**, please register online at [http://www.neuroscience.utoronto.ca/events/CPIN\\_Research\\_Day/researchdayfacultyreg.htm](http://www.neuroscience.utoronto.ca/events/CPIN_Research_Day/researchdayfacultyreg.htm).

**Michael Landsberg** has been invited to give the keynote talk as a part of the Mental Health symposium, co-organized by the Li Ka Shing Knowledge Institute ASR Suicide and Depression Studies Unit, St. Michael's Hospital. Michael was formerly host of the TSN show *Off the Record* (1997-2015). He suffers from anxiety disorder and depression and raises awareness for mental health through his organization [#SickNotWeak](#). **Professors Jeff Meyer, Etienne Sibille and Kang Lee** have been invited to discuss their work in the Mental Health field. These talks will cover neuroinflammation in depression, molecular research in mental illness, and artificial intelligence.

The Research Day kicks-off with a Career Development Workshop started by **Sage Tyrrtle**, a Professional Storytelling Coach well-recognized in her field. The workshop focuses on networking and effective communication.

The day concludes with an awards ceremony, including the **Jonathan Dostrovsky Award In Neuroscience** and the CPIN Research Day **Poster Presentation Awards**.

For the program updates, please visit the CPIN website ([http://www.neuroscience.utoronto.ca/events/CPIN\\_Research\\_Day.htm](http://www.neuroscience.utoronto.ca/events/CPIN_Research_Day.htm)).

The Research Day Organizing Committee are extremely excited to see you all joining us on June 14!

## 2018 Toronto Brain Bee

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

**The 20<sup>th</sup> Annual Toronto Brain Bee** competition took place at the Sandford Fleming Building at the University of Toronto on April 12, 2018. 106 students from 27 high schools in the Toronto area took part in the competition. 24 Graduate students/postdoctoral volunteers and 5 faculty members were involved in organizing this successful outreach event.



(Toronto Brain Bee Photos credits: Firefly Foundation)

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

# Collaborative Program in Neuroscience (CPIN) University of Toronto

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## 2018 Toronto Brain Bee (contd.)

The students were welcomed by Professor Zhong-Ping Feng (Toronto Brain Bee Coordinator and CPIN Director; Physiology). Nancy Dong (Graduate volunteer leader; Physiology) announced the Brain Bee event schedule and the rules of the competition. The competition was hosted by Alexandre Guet-McCreight (Graduate student, PSL) and Dulcie Vousden (Graduate student, MBP). CPIN Chief Judges at the event included Professor Kaori Takehara (Psychology), Professor Hong-Shuo Sun (IMS/Surgery-Anatomy), Katherine Halievski (Postdoc, Sickkids), Zachary Hall (Postdoc, Cell and Systems Biology), Dr. Katherine Halievski (Sickkids), and Dr. Zachary Hall (Cell and Systems Biology) and Professor Zhong-Ping Feng. In between the competition rounds, research presentations were made to the high-school students by Dr. Tamjeed Siddiqui (UofT alumnus) and Dr. Leigh Spencer Noakes (SickKids). Participants also viewed a video overview of the 2017 Firefly Foundation Bright Lights in the lab program (provided by Sharon Zillmer, Firefly Foundation).

Following three rounds of questions, the top winners were: **Surya Pandiaraju** (Upper Canada College, first place), **Michael Tang** (University of Toronto Schools, second place) and **Yashan Chelliahpillai** (Glenforest Secondary School, third place). As the first place winner, Surya will represent Toronto at the 11th Annual CIHR Canadian National Brain Bee competition ([www.brainbee.ca](http://www.brainbee.ca)), which will take place at McMaster University in Hamilton on Saturday, May 26th 2018.



(Toronto Brain Bee Photos credits: Zhong-Ping Feng)

# Collaborative Program in Neuroscience (CPIN) University of Toronto

Newsletter – Vol. 34, No. 8 – April 2018

## 2018 Toronto Brain Bee (contd.)

**The Graduate Volunteers** were organized and led by **Nancy Dong** (PSL). Volunteers included (in no particular order): Alexandra Chatzikalymniou (PSL), Ann Gong (PSL), Ashley Zhang (LMP), Carina Freitas (IMS), Dipa Chatterjee (LMP), Farinaz Ghodrati (LMP), Irene Harmsen (IMS), Jasmyn Cunningham (IMS), Joe Steinman (MBP), Jonathon Chio (IMS), Julia Kim (IMS), Julia Tomasi (IMS), Luke Chung (MBP), Mahmoud Bitar (CSB), Moushumi Nath (PSL), Raymond Wong (PSL), Sally Abudiab (RSI), Sammy Cai (PSL), Sarah Gregor (RSI), Sridevi Venkatesan (PSL), Talwinder Gill (IMS), Zsuzsa Lindenmaier (MBP).

**Toronto Brain Bee Sponsorship** The 2018 Brain Bee competition was sponsored by the Collaborative Program in Neuroscience, the Department of Physiology and the Firefly Foundation.

**The organizing committee** of the 2018 Toronto Brain Bee comprised of UofT faculty and trainee members: Nancy Dong (PhD student, Physiology), Zhong-Ping Feng (Physiology; Committee Chair), Katherine Halievski (Postdoc, Sickkids), Zachary Hall (Postdoc, Cell and Systems Biology), William Ju (Human Biology), Hong-Shuo Sun (IMS/Surgery-Anatomy), Kaori Takehara (Psychology) and Suhail Asrar (CPIN Office). The committee has discussed and approved the competition questions prepared by Zhong-Ping Feng, Hong-Shuo Sun and Kaori Takehara.



### Congratulations to Awardees

#### Top 3 Ranking Participants

Surya Pandiaraju (Upper Canada College, first place), Michael Tang (University of Toronto Schools, second place) and Yashan Chelliahpillai (Glenforest Secondary School, third place)

#### Top Ranking Novice Participant Award

Natasha Reyes (Cardinal Carter Academy for the Arts)

#### Top Ranking Participants according to school (with at least 8 participants)

Matthew Huynh (Bayview Secondary School), Alston Lo (Richmond Hill High School), Saumya Naik (Fletcher's Meadow Secondary School), Gen Nishiwaki (Upper Canada College), Neha Rastogi (University of Toronto Schools) and Annie Zou (Glenforest Secondary School)

#### Student Leadership in Promoting Early Education in Neuroscience Award

Temitope Lekuti (Fletcher's Meadow Secondary School)

#### Teacher Recognition Awards

Ralph Masciello (Bayview Secondary School), Michelle Blais (Cardinal Carter Academy for the Arts), Philip Walton (Chinguacousy Secondary School), Holly Nightingale (Fletcher's Meadow Secondary School), Marybeth Bertovic and Marijana Kanisek (Glenforest Secondary School), George DelBianco (Richmond Hill High School), Anand Mahadevan (University of Toronto Schools) and Laurie Fraser (Upper Canada College)



# Collaborative Program in Neuroscience (CPIN) University of Toronto

Newsletter – Vol. 34, No. 8 – April 2018

## Neuroscience Opportunities

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[http://www.neuroscience.utoronto.ca/communications/Positions\\_Available.htm](http://www.neuroscience.utoronto.ca/communications/Positions_Available.htm)

### Principal Investigator Position

**Sainte-Justine University Hospital Research Centre – Faculty of Medicine, Université de Montréal, Montreal, Quebec, Canada**

**Description:** The Research Centre of the CHU Saint-Justine (CHUSJ) in partnership with the Department of Neurosciences of the Université de Montréal (UdeM) is seeking applicants for a principal investigator position at the rank of assistant research professor in the field of neurodevelopment and the specific use of induced Pluripotent Stem Cells (iPSC) for the study and treatment of neurodevelopmental disorders.

**For further information, please see the link:** <http://can-acn.org/new-principal-investigator-position-in-areas-related-to-cutting-edge-stem-cell-approaches-to-study-neurodevelopmental-diseases-at-sainte-justine-university-hospital-research-centre-faculty-o>

### Faculty Position – Tenure Track Assistant Professor – Human Neuroimaging University of Lethbridge, Lethbridge, Alberta, Canada

**Description:** The Department of Neuroscience at the University of Lethbridge seeks an exceptional neuroscientist to fill a position at the Assistant Professor level. This is a probationary (tenure track) appointment, beginning July 1, 2018. Candidates must have demonstrated excellence in research on human cerebral function, with systems-level and/or computational approaches, utilizing state-of-the-art imaging methods, including MRI.

**For further information, please see the link:** <http://can-acn.org/tenure-track-assistant-professor-human-neuroimaging-university-of-lethbridge>

### Faculty Position – Tenure Track Faculty Position in Neuropharmacology Queen's University, Kingston, Ontario, Canada

**Description:** Applicants will be expected to provide evidence of an ability to work collaboratively in an interdisciplinary and student-centered environment. The successful candidate will make contributions through service to the department, the Faculty, the University, and/or the broader community. Salary will be commensurate with qualifications and experience. This position is subject to final budgetary approval by the University.

**For further information, please see the link:** <http://can-acn.org/tenure-track-faculty-position-in-neuropharmacology-queens-university>

## Reminders

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**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](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](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](mailto:p.neuroscience@utoronto.ca)

**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](http://www.neuroscience.utoronto.ca/students/cpin_student_completion_form.htm)