

# Collaborative Program in Neuroscience (CPIN)

## University of Toronto

Newsletter – Vol. 35, No. 2 – October 2018

### Featured In This Issue

**News – CPIN Faculty Members** Congratulations to CPIN faculty members **Dr. Michael Fehlings** on his recent publication in Nature. Please see page 2 for details.

**Welcome New CPIN Faculty** We welcome **Dr. Doug VanderLaan** to the CPIN community. Please see page 3 for details.

**News – CPIN Trainees** Congratulations to CPIN student members **Eric Plitman, Jasmyn Cunningham, and Marija Zivcevska** on their accomplishments and recently completing their CPIN requirements. Please see page 4 for details.

**Congratulations Graduating Students** Please see page 5 for details.

**CPIN Student Orientation Event Report** Please see page 2 for details.

**Welcome New CPIN Students** Please see page 6 for details.

**CPIN Undergraduate Mentorship Panel Event Report** Please see page 3 for details.

### 2018-19 CPIN Distinguished Lectureship Series

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



#### CPIN Emerging Leaders in Neuroscience Lecture

Speaker | **Dr. Juan Song**, Assistant Professor, Department of Pharmacology, UNC Neuroscience Center, University of California, Berkeley

Title | *Dissecting neural circuits for adult hippocampal neurogenesis*

Date and Time | **Thursday, October 18, 2018, 4:00 pm**

Location | Room 2170, Medical Sciences Building, 1 King's College Circle, U of T

Host | Dr. Paul Frankland, Professor, Departments of Psychology and Physiology, IMS; Senior Scientist, Neuroscience & Mental Health, SickKids Hospital

Co-Sponsor | Neuroscience Platform, Department of Physiology, U of T



Speaker | **Dr. Mark Tuszynski**, Professor, Department of Neuroscience, University of California, San Diego

Title | *Neural Stem Cells for Spinal Cord Injury*

Date and Time | **Friday, October 19, 2018, 4:15 pm**

Location | Main Dining Room, Faculty Club, University of Toronto, 41 Willcocks St

Host | Dr. Michael Fehlings, Head, Spinal Program, UHN & Vice Chair Research, Department 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

**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](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

Zhong-Ping Feng  
Director  
CPIN  
Graduate Studies

Iulia Park  
Administrator  
CPIN Office

**CPIN Office**  
[p.neuroscience@utoronto.ca](mailto: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

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### News - CPIN Faculty Members

[http://www.neuroscience.utoronto.ca/communications/news\\_cpin\\_faculty\\_members.htm](http://www.neuroscience.utoronto.ca/communications/news_cpin_faculty_members.htm)



Congratulations to CPIN member **Dr. Michael Fehlings** on his recent publication in Nature.

Excerpt from the UHN News website: A team of scientists at the Krembil Research Institute has developed an innovative strategy that could help to restore breathing following traumatic spinal cord injury. The team, led by principal investigator Dr. Michael Fehlings, neurosurgeon/neuroscientist, specialist in spinal cord injury and Senior Scientist at UHN, published its findings in the journal Nature in a paper entitled "Cervical excitatory neurons sustain breathing after spinal cord injury."

Article is available at: <https://www.nature.com/articles/s41586-018-0595-z>

Press releases:

[https://www.uhn.ca/corporate/News/Pages/Krembil\\_Research\\_Institute\\_scientists\\_develop\\_strategy\\_to\\_jumpstart\\_breathing\\_after\\_spinal\\_cord\\_injury.aspx?utm\\_campaign=UHN+-+Website&utm\\_medium=social&utm\\_source=twitter&utm\\_content=1539266021](https://www.uhn.ca/corporate/News/Pages/Krembil_Research_Institute_scientists_develop_strategy_to_jumpstart_breathing_after_spinal_cord_injury.aspx?utm_campaign=UHN+-+Website&utm_medium=social&utm_source=twitter&utm_content=1539266021)

[https://eurekaalert.org/pub\\_releases/2018-10/uhn-nac100918.php](https://eurekaalert.org/pub_releases/2018-10/uhn-nac100918.php)

<https://www.beckersspine.com/spine/item/43001-new-strategy-may-eliminate-dysfunctional-breathing-after-spinal-cord-injury.html>

Michael G. Fehlings received his MD degree from the University of Toronto (UofT) in 1983, and completed his general surgical training at Queen's University. Upon returning to UofT, he completed his neurosurgical training as well as PhD, and received his Fellowship of the Royal College of Surgeons of Canada. He is currently Professor and Vice Chair of Research in the Department of Surgery at UofT, a McLaughlin Scholar in Molecular Medicine, Senior Scientist at the McEwen Centre for Regenerative Medicine, Co-Director of the UofT Spine Program, Head of the Spinal Program at Toronto Western Hospital and Halbert Chair in Neural Repair and Regeneration.

Dr. Fehlings combines an active clinical practice in complex spinal surgery with a translationally oriented research program focused on discovering novel treatments for the injured spinal cord. Dr. Fehlings has received numerous awards including the Gold Medal in Surgery from the Royal College of Physicians and Surgeons, the Olivecrona Award from the Karolinksa Institute, and the Golden Axon Leadership Award. In 2013, Dr. Fehlings was recognized with the Queen Elizabeth II Diamond Jubilee Medal presented to him by the Honourable Stephen Harper, and In 2014 he was elected to the Fellowship of the Royal Society of Canada and to the Canadian Academy of Health Sciences. He was awarded the Regional Mentor of the Year award in 2016 from the Royal College of Physicians and Surgeons of Canada for his significant impact on the career development of medical residents and fellows. In 2017, he was awarded the Dave Lostchuck People's Choice Award for outstanding SCI Scientist. He is currently Chair of the AO KF Trauma and President of the International Neurotrauma Society. Read Dr. Fehlings' full bio on our website at:

<http://www.neuroscience.utoronto.ca/Assets/Neuroscience+Digital+Assets/Faculty+News/2018-2019/Michael+Fehlings+Bio.pdf>

**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)

### CPIN Student Orientation Event Report

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

CPIN held its first Student Orientation on Thursday, October 11, 2018. The event included a welcome talk by CPIN Director, **Dr. Zhong-Ping Feng**, introducing students to the program and its requirements, as well as the many opportunities for members to get involved. CPIN Mentorship Program Student Co-Director, **Joe Steinman**, and CPIN member **Alexandre Guet-McCreight** spoke about the Mentorship Program, the annual Research Day, and CPIN's Social Media platforms. CPIN Academic/Executive Committee member, **Professor Jeffrey Henderson** (Pharmacy) encouraged students to get involved in the "largest neuroscience academic community" and called the running of CPIN a "labour of love."

New and continuing CPIN members are encouraged to participate and give feedback using the online Volunteer Form on the CPIN website at: [http://www.neuroscience.utoronto.ca/events/cpin\\_volunteer.htm](http://www.neuroscience.utoronto.ca/events/cpin_volunteer.htm)

(Event report by *Iulia Park*).

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

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### CPIN Undergraduate Mentorship Panel Event Report

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[http://www.neuroscience.utoronto.ca/events/undergraduate\\_mentorship.htm](http://www.neuroscience.utoronto.ca/events/undergraduate_mentorship.htm)

On Thursday, October 18, the CPIN Undergraduate Mentorship Program hosted its first event of the year, the Graduate Student Q&A Panel. It was held from 5 – 6 pm in the Medical Sciences Building, Room 2170.

The Event featured a Graduate student panel that fielded numerous Grad school-related questions from an undergraduate audience. Questions covered the Grad school application process, life as a research student, selecting a PI, scholarship applications, interview prep, and more! Five CPIN students served as panelists: **Jon Chio (PhD candidate, IMS and CPIN Mentorship Program Executive)**; **Azin Esmaelbeigi (MSc candidate, Medical Biophysics)**; **Dr. Zach Hall (Postdoc, Cell & Systems Biology)**; **Claire McSweeney (MSc candidate, IMS)**; and **Lindsey Thurston (PhD candidate, Psychology)**. Following the panel, there was a Networking and Mixing event with pizza and refreshments served. The undergraduates had the opportunity to interact informally with the panelists and the CPIN Director, **Dr. Zhong-Ping Feng**. CPIN Mentorship Executive members **Aeen Amini, Joe Steinman, Raymond Wong, and Marija Zivcevska** were present to help coordinate the evening. The event was a real success, with a number of the students staying well past the official ending time of 6:00. It was a great start to the Mentorship Program for the 2018/2019 year!

There was an important by-product to the evening's success and its preparations. The event was heavily publicized by the Mentorship Executive via numerous posters around the U of T campus, Facebook posts, Twitter, and twice on the undergraduate department listservs. In addition to registering for the Panel, many undergraduates simultaneously registered as mentees for the program. Mentees receive a CPIN Graduate student mentor that provides advice throughout the Graduate application process. Given their interest in neuroscience, a number of these undergraduates may serve as CPIN students and executives in the future. As October 18 approached, more and more undergraduates registered as mentees. The process of matching mentees with mentors is underway, and the Executive is really looking forward to the next workshop!

*(Event report by Joe Steinman).*

### Welcome New CPIN Faculty Members

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[http://www.neuroscience.utoronto.ca/communications/news\\_cpin\\_faculty\\_members.htm](http://www.neuroscience.utoronto.ca/communications/news_cpin_faculty_members.htm)



We would like to welcome **Dr. Doug VanderLaan** (Assistant Professor, Department of Psychology, University of Toronto Mississauga; Collaborator Scientist, Child and Youth Psychiatry, CAMH) as a new faculty member to the CPIN community.

Dr. VanderLaan's research examines gender expression across the lifespan and sexual orientation development. Much of this work focuses on questions surrounding same-sex sexual orientation, gender-nonconforming behaviour, and transgender identity to enhance our understanding of human diversity.

Identifying factors associated with psychological well-being among individuals who are members of sexual orientation and gender minority groups is also a major focus, particularly as well-being relates to social experiences with family members and peers. Dr. VanderLaan's research emphasizes biological, psychological, and socio-cultural processes and integrates developmental, cross-cultural, and evolutionary perspectives. In addition, his research program integrates a variety of methodological approaches, including lab-based experiments and behavioural observation, cross-cultural field research, clinical research, neuroimaging, survey and questionnaire studies, and archival studies.

In addition to being a faculty member in the Department of Psychology at the University of Toronto Mississauga, Dr. VanderLaan is also a Collaborator Scientist in the Underserved Populations Research Program, Child, Youth and Family Division at the Centre for Addiction and Mental Health, Toronto. Prior to these appointments, he completed his graduate training at the University of Lethbridge and a Postdoctoral Fellowship in the Gender Identity Service of the Child, Youth and Family Division at the Centre for Addiction and Mental Health. He is currently an Editorial Board member of Archives of Sexual Behavior, Psychology of Sexual Orientation and Gender Diversity, Canadian Journal of Human Sexuality, and Evolutionary Psychological Science. He is also a section editor for the forthcoming Encyclopedia of Evolutionary Psychological Science.

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### News - CPIN Trainees

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



Congratulations to CPIN student member **Eric Plitman** (Institute of Medical Science, Supervisor Dr. Ariel Graff) on recently completing the CPIN requirements and graduating from his PhD program.

Eric's graduate work focused on using proton magnetic resonance spectroscopy to study the glutamatergic system in antipsychotic-naïve patients experiencing their first episode of psychosis and in patients with schizophrenia who underwent long-term treatment with antipsychotics. His research provided evidence for glutamatergic disruption in patients with schizophrenia, particularly implicating elevated levels of glutamatergic neurometabolites in the structural compromise that is observed within this patient population.

During the course of his degree, Eric contributed to 47 publications; his first-author work is published across Schizophrenia Bulletin, Neuropsychopharmacology, European Neuropsychopharmacology, and Psychiatry Research: Neuroimaging. Eric has also been awarded the Schizophrenia International Research Society Conference Travel Award (2018), the Canadian Institutes of Health Research (CIHR) Vanier Canada Graduate Scholarship (2016), the CIHR Doctoral Award (2016), the Ontario Graduate Scholarship (2013, 2015) and the CIHR Canada Graduate Scholarship - Master's (2014) for projects examining the neurochemistry and neuroanatomy of patients with schizophrenia.

None of Eric's accomplishments would have been possible without the mentorship and supervision that he received during his PhD from Dr. Ariel Graff-Guerrero, Dr. Philip Gerretsen, Dr. Mallar Chakravarty, Dr. Gary Remington, and Dr. Sofia Chavez. Eric has now joined Dr. Chakravarty at McGill University to further his research.



Congratulations to CPIN student member **Jasmyn Cunningham** (Institute of Medical Science, Supervisor Dr. Colin Shapiro) on recently completing the CPIN requirements and graduating from her MSc program.

Jasmyn's research focused on reviewing and developing sleep and circadian based treatments for depression under the supervision of Dr. Colin Shapiro. She received the IMS Entrance Award and the Ontario Graduate Scholarship to support her Master's degree. Over the course of her Master's, she has published or submitted three first-author journal articles and has co-authored a chapter in a textbook.

Jasmyn was also involved in a variety of extra-curricular activities while completing her degree. She has been volunteering regularly at the Ryerson Sleep and Depression Laboratory, and at the Centre for Addictions and Mental Health. She also volunteered with the Brain Bee. In early 2018, she completed the requirements for the Duke of Edinburgh's Award (Gold). After her Master's, Jasmyn intends to pursue a career as a clinician scientist.



Congratulations to CPIN student member **Marija Zivcevska** (Institute of Medical Science, Supervisor Dr. Agnes Wong) on recently completing the CPIN requirements and graduating from her MSc program.

Marija completed her Master's at Sick Kids Hospital where she investigated the neural correlates of visual discomfort, using novel chromatic pupillometry and psychophysical approaches. During her time as a CPIN student, Marija has authored 4 peer-reviewed articles, 2 of which are first author publications and presented at several national and international conferences. She has received the Vision Science Research Program Scholarship, SGS Conference Grant and IMS Academic Development Award to help support her studies.

In addition to her graduate achievements, she is also very involved within the community, serving as President for the University of Toronto Chapter for the Institute for Healthcare Improvement, a Journalist for Elemental Magazine, Segment Host for Raw Talk Podcast, Brain Waves Executive Member and Program Assistant for the CPIN Mentorship Program. For these efforts, she was a recipient of the 2018 Gordon Cressy Leadership Award. Marija hopes to continue her research and pursue a career in medicine. Her work can be found at <https://iovs.arvojournals.org/article.aspx?articleid=2675573> and [https://iovs.arvojournals.org/article.aspx?articleid=2707328&utm\\_source=silverchair&utm\\_medium=email&utm\\_campaign=article\\_alert-Invest.%20Ophthalmol.%20Vis.%20Sci.&utm\\_content=olf&utm\\_term=101518](https://iovs.arvojournals.org/article.aspx?articleid=2707328&utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-Invest.%20Ophthalmol.%20Vis.%20Sci.&utm_content=olf&utm_term=101518)

**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)

## Congratulations CPIN Graduating Students

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

| Last Name  | First Name       | Home Unit | Degree | Supervisor                           |
|------------|------------------|-----------|--------|--------------------------------------|
| Abdallah   | Salsabil         | CSB       | MSc    | Dr. Adriano Senatore                 |
| Ayoub      | Ramy             | PSY       | MA     | Dr. Donald Mabbott                   |
| Bray       | Michael          | IMS       | MSc    | Dr. Mark Bayley                      |
| Chen       | Yuxiao (Sonny)   | PCL       | PhD    | Dr. Amy Ramsey                       |
| Cheng      | Darren           | REHSC     | MSc    | Dr. Nancy Salbach                    |
| Compagnone | Jordana          | IMS       | MSc    | Dr. Mario Masellis                   |
| Cunningham | Jasmyn           | IMS       | MSc    | Dr. Colin Shapiro                    |
| Eftekhari  | Daniel           | IBBME     | MASc   | Dr. Richard Aviv                     |
| Hamer      | Julia            | IMS       | MSc    | Dr. Tom Schweizer                    |
| House      | Sarah            | IBBME     | MASc   | Dr. Tom Chau                         |
| Kunaratnam | Nirsan           | REHSC     | MSc    | Dr. Joyce Chen                       |
| Lau        | Angus            | BCM       | MSc    | Dr. Joel Watts                       |
| Pan        | Danny            | IMS       | MSc    | Dr. Roger S. McIntyre                |
| Poulson    | Sandra           | PSY       | MA     | Dr. Melissa Holmes, Dr. Loren Martin |
| Sereshkeh  | Alborz Rezazadeh | IBBME     | PhD    | Dr. Tom Chau                         |
| Swarbrick  | Dana             | REHSC     | MSc    | Dr. Joyce L. Chen                    |
| Varriano   | Brenda           | IMS       | MSc    | Dr. Carmela Tartaglia                |
| Zivcevska  | Marija           | IMS       | MSc    | Dr. Agnes Wong                       |

## 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://neuroscience.utoronto.ca/events/Conf_M.htm)

# Collaborative Program in Neuroscience (CPIN)

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### Welcome New CPIN Students

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

| Last Name     | First Name | Home Unit | Degree | Supervisor                               |
|---------------|------------|-----------|--------|--|
| Ahmed         | Mashal     | IMS       | MSc    | Dr. Isabelle Boileau, Dr. Stefan Kloiber |
| Bandura       | Julia      | PSL       | PhD    | Dr. Zhong-Ping Feng                      |
| Costa-Dookhan | Kenya      | IMS       | MSc    | Dr. Margaret Hahn                        |
| Desimone      | Alexa      | IMS       | MSc    | Dr. Michael Fehlings                     |
| Drolet        | Rebecca    | MUS       | MA     | Dr. Michael Thaut                        |
| Drupals       | Megan      | PSL       | PhD    | Dr. Michael Salter                       |
| Garfinkle     | Jarred     | IMS       | MSc    | Dr. Steven Miller                        |
| Ghannad-Zadeh | Kimia      | IMS       | MSc    | Dr. Sunit Das                            |
| Ho            | Louise     | MUS       | MA     | Dr. Michael Thaut                        |
| Johnston      | Phillip    | PSY       | MA     | Dr. Randy McIntosh                       |
| Kurta         | Taylor     | MUS       | MA     | Dr. Michael Thaut                        |
| Luo           | Zhengwei   | PSL       | PhD    | Dr. Hong-Shuo Sun                        |
| Luong         | William    | IMS       | MSc    | Dr. Michael Fehlings                     |
| Mo            | Kelly      | IMS       | MSc    | Dr. Meng-Chuan Lai                       |
| Noori         | Rabiya     | IBBME     | MASc   | Dr. Jeremie Lefebvre                     |
| Peimani       | Amir Reza  | IBBME     | PhD    | Dr. Peter Carlen                         |
| Poulson       | Sandra     | PSY       | MA     | Dr. Melissa Holmes, Dr. Loren Martin     |
| Power         | Saige      | PSL       | MSc    | Dr. Evelyn Lambe                         |
| Rahman        | Anum       | MBP       | PhD    | Dr. Jean Chen                            |
| Shah          | Parita     | IMS       | MSc    | Dr. Ariel Graff-Guerrero                 |
| Szigeti       | Zara       | REHSC     | MSc    | Dr. Emily Nalder                         |
| Thurston      | Lindsey    | PSY       | PhD    | Dr. Doug VanderLaan                      |
| Truong        | Jennifer   | IMS       | MSc    | Dr. Isabelle Boileau, Dr. Stephen Kish   |
| Whiteside     | Chantelle  | MUS       | PhD    | Dr. Michael Thaut                        |
| Winberg       | Jordan     | PCL       | MSc    | Dr. Jane Mitchell                        |
| Zhang         | Hantao     | PHM       | PhD    | Dr. Robert P Bonin                       |
| Zhou          | Susan      | PSL       | MSc    | Dr. Zhengping Jia                        |