

# Collaborative Program in Neuroscience (CPIN)

## University of Toronto

Newsletter – Vol. 33, No. 8 – April 2017

## Featured In This Issue

**2017 CPIN Research Day & Currents Trends in Neurorehabilitation symposium** will be held on **Monday, May 1 at the U of T Medical Sciences Building**. Please see below for more details.

**2017 Toronto Brain Bee** was held at the U of T Medical Sciences Building on March 31. 109 students from 34 high schools in the Greater Toronto Area participated in the competition. Please see pages 2-5 for the list of awardees and other details.

## 2017 CPIN Research Day

[http://www.neuroscience.utoronto.ca/events/CPIN\\_Research\\_Day.htm](http://www.neuroscience.utoronto.ca/events/CPIN_Research_Day.htm)

The **2017 CPIN Research Day** will be held in conjunction with the **Currents Trends in Neurorehabilitation Symposium on Monday, May 1** at the U of T Medical Sciences Building. The program includes talks by both international and local speakers as well as poster presentations by research trainees. Please visit our website for the complete program: <http://www.neuroscience.utoronto.ca/>



### Keynote Speaker

**Dr. Volker Hoemberg**, Medical Director, SRH Rehabilitation Hospital Bad Wimpfen/Germany; Secretary General, World Federation of Neurorehabilitation  
*"Neurorehabilitation 2017: Where Are We – Where to Go. New Developments in Brain Research and Clinical Translations"*



**Dr. Deryk Beal**, Assistant Professor, U of T; Clinician-Scientist Speech-Language Pathologist, Bloorview Research Institute, Holland Bloorview Kids Rehabilitation Hospital  
*"Stimulating conversation: Neuromodulation for speech and language rehabilitation"*



**Dr. Joyce Chen**, Assistant Professor, U of T; Scientist, Sunnybrook Research Institute  
*"Biomarkers and non-invasive brain stimulation for stroke motor recovery"*



**Dr. Robin Green**, Canada Research Chair (tier 2) Traumatic brain injury – Neurorehabilitation; Associate Professor, U of T; Senior Scientist Toronto Rehabilitation Institute – University Health Network  
*"Remote Neurorehab: A New Provincial Telehealth Centre for Integrated Research and Clinical Care in Chronic Brain Injury"*



**Dr. Kara Patterson**, Assistant Professor, U of T; Scientist, Toronto Rehabilitation Institute – University Health Network  
*"Walk this way: considerations for the rehabilitation of gait after stroke"*



**Dr. Corene P. Hurt-Thaut**, Assistant Professor, U of T; Program Director, The Academy for Neurologic Music Therapy; Professor, ArtEZ School of Music – ArtEZ Conservatorium  
*"Neurologic Music Therapy in Neurorehabilitation"*



**Dr. Rosalie Wang**, Assistant Professor, U of T; Affiliate Scientist, Artificial Intelligence and Robotics in Rehabilitation Research Team, Toronto Rehabilitation Institute – University Health Network  
*"Applications of Robotics in Upper Limb Stroke Rehabilitation"*

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

## CPIN Newsletter

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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:**  
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## 2016-17 CPIN Distinguished Lectureship Series

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



Speaker | **Dr. Eve Marder**, Victor and Gwendolyn Beinfeld Professor of Neuroscience, Department of Biology, Brandeis University

Title | *Individual Variability and Resilience in Neurons and Neuronal Circuits*

Date | **Wednesday, May 10, 2017**

Time | 2:00 pm

Location | 89 Chestnut St. (2nd floor), Toronto, ON

Host | Dr. Frances Skinner, Senior Scientist, Krembil Research Institute, University Health Network; Professor, Departments of Medicine (Neurology) and Physiology, U of T

Co-sponsor | Krembil Research Institute

**Note: Reception at 89 Chestnut following soon after Dr. Marder's talk is open to all**

## 2017 Toronto Brain Bee

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



(Toronto Brain Bee Photos credits: Eva Eng, Zhong-Ping Feng, Catherine Li, Keelia Quinn de Launay and Vivian Szeto)

**The 19<sup>th</sup> Annual Toronto Brain Bee** competition took place at the Medical Sciences Building at the University of Toronto (U of T) on March 31, 2017. 109 students from 34 high schools in the Toronto area took part in the competition, which is the largest number of participants to date. 33 student volunteers and 8 faculty members were involved in organizing this successful outreach event. The students were welcomed by Professor Zhong-Ping Feng (Toronto Brain Bee Coordinator and CPIN Director, Physiology) and Professor Allan S. Kaplan (Vice Dean, Graduate and Academic Affairs, Faculty of Medicine; Psychiatry). Other CPIN faculty judges at the event included Professor Amy Ramsey (Chief Judge; Pharmacology), Professor Jonathan Dostrovsky (Physiology) and Professor Hong-Shuo Sun (Chief Judge; IMS/Surgery-Anatomy). Nancy Dong (Graduate volunteer leader; Physiology) announced the Brain Bee event schedule and the rules of the competition. The competition was hosted by Sofia Raitsin (Graduate student, IMS) and Vladislav Sekulic (Graduate student, Physiology). In between the competition rounds, a clinical presentation was made to the high-school students by UofT medical students Susy Lam & Adriano Mollica. Participants also viewed a video overview of the 2016 Firefly Foundation Bright Lights in the lab program (provided by Sharon Zillmer, Firefly Foundation). Prior to the final competition round, all participants observed a live-animal Research Demonstration led by Professor Amy Ramsey (Pharmacology). Following three rounds of questions, the top winners were: **Prerana Keerthi** (The Woodlands Secondary School, first place), **Yashan Chelliahpillai** (Glenforest Secondary School, second place) and **Syed Raza** (Pierre Elliott Trudeau School, third place). As the first place winner, Prerana Keerthi will represent Toronto at the 10th 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 27th 2017.

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



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## 2017 Toronto Brain Bee (contd.)

**Toronto Brain Bee Sponsorship** The 2017 Brain Bee competition was sponsored by the Collaborative Program in Neuroscience, the Department of Physiology, the Firefly Foundation and the Ontario Ministry of Research and Innovation via Early Researcher Award (ERA) outreach funds. We would like to express our appreciation to the sponsors and U of T faculty members: Professor Morgan Barens (Psychology), Professor Azadeh Farzan (Computer Science) & Professor Patricia Ganea (Applied Psychology & Human Development), who contributed their ERA outreach funds to support the Brain Bee.



**The trainee volunteers** were organized and led by Nancy Dong (Physiology). Volunteers included Yuxiao (Sonny) Chen (Pharmacology & Toxicology), Jonathon Chio (Institute of Medical Science), Chesarahmia Dojo Soeandy (Pharmaceutical Sciences), Alexandre Guet-McCreight (Physiology), Liza Futerman (Centre For Comparative Literature), Zachary Hall (Cell & Systems Biology), Irene Harmsen (Institute of Medical Science), Kirusanthy Kaneshwaran (Physiology), Shahin Khodaei (Physiology), Nirsan Kunaratnam (Rehabilitation Sciences Institute), Catherine Li (Human Biology), Feiya Li (Physiology), Keelia Quinn de Launay (Rehabilitation Sciences Institute), Hannah Marlatte (Psychology), Karen Misquitta (Institute of Medical Science), Moushumi Nath (Physiology), Ingita Patel (Pharmaceutical Sciences), Sofia Raitzin (Institute of Medical Science), Jessica Ramlakhan (Human Biology), Cricia Rinchon (Institute of Medical Science), Anton Rogachov (Institute of Medical Science), Kate Rzadki (Laboratory Medicine & Pathobiology), James Saravanamuttu (Institute of Medical Science), Vladislav Sekulic (Physiology), Michael Solarski (Laboratory Medicine & Pathobiology), Faryn Starrs (Rehabilitation Sciences Institute), Joseph Steinman (Medical Biophysics), Dana Swarbrick (Rehabilitation Sciences Institute), Vivian Szeto (Physiology), Ekaterina Turlova (Physiology), Emily Underwood (Institute of Medical Science), Kaviraja Udupa (University Health Network), Brenda Varriano (Institute of Medical Science), Xinzhu Louisa Wang (Laboratory Medicine & Pathobiology), Raymond Wong (Physiology) and Kazi Zahir (Human Biology).

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## 2017 Toronto Brain Bee (contd.)

**The organizing committee** of the 2017 Toronto Brain Bee comprised of UofT faculty and graduate student members: Morgan Barense (Psychology), Nancy Dong (Graduate student, Physiology), Jonathan Dostrovsky (Professor Emeritus Physiology; Advisor), Azadeh Farzan (Computer Science), Zhong-Ping Feng (Physiology; Committee Chair), William Ju (Human Biology), Amy Ramsey (Pharmacology), Ali Salahpour (Pharmacology), Hong-Shuo Sun (IMS/Surgery-Anatomy) and Suhail Asrar (CPIN Office).

**The questions preparation committee** of the 2017 Toronto Brain Bee comprised of Nancy Dong (Graduate student, Physiology), Zhong-Ping Feng (Physiology; Committee Chair) and William Ju (Human Biology).



### Congratulations to Awardees

#### Top 3 Ranking Participants

Prerana Keerthi (The Woodlands Secondary School, first place), Yashan Chelliahpillai (Glenforest Secondary School, second place) & Syed Raza (Pierre Elliott Trudeau School, third place)

#### Top Ranking Novice Participant Award

Yashan Chelliahpillai (Glenforest Secondary School)

#### Top Ranking Participants according to school (with at least 5 participants)

Rifaa Fatima Ali (University of Toronto Schools), Yashan Chelliahpillai (Glenforest Secondary School), Matthew Huynh (Bayview Secondary School), Surya Pandiaraju (Upper Canada College) & Khari Thomas (Marc Garneau Collegiate Institute)

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

Surya Pandiaraju (Upper Canada College), Deween Piyasena (Stephen Lewis Secondary School) & Anjali Thatte (Glenforest Secondary School)

#### Teacher Recognition Awards

Marybeth Bertovic (Glenforest Secondary School), Anya Marin (Glenforest Secondary School), Ralph Masciello (Bayview Secondary School) & Courtney Turner (Upper Canada College)



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## 2017 Toronto Brain Bee (contd.)



### Participant comments on the 2017 Toronto Brain Bee

Sasha Korolov, Sabrina Zaidi, and Vicky Xie from Richmond Hill High School



**Q. Do you see yourselves pursuing neuroscience in any way, in school or in a job?**

Vicky: After I've studied for the Brain Bee I've actually realized that it's pretty fascinating stuff so I think that maybe if I do go into medicine, I might pursue neuroscience.

Sasha: Yeah, I'm thinking of going into medicine or research, and if I do I might go into neuroscience but I'm not sure yet.

Sabrina: I know I want to go into the life sciences, and if I go into medicine I will probably go into neurology and neuroscience.

**Q. What is something that you find the most interesting in neuroscience?**

Vicky: I think it's really cool how everything that you do is controlled by such tiny things in your brain. It's hard to imagine and grasp but it's really there and science has proved it. It's pretty amazing how scientists have been able to do that.

Sasha: Yeah I agree with Vicky. I think action potentials and how it controlled everything in your body is really cool, and difficult to think about.

Sabrina: I agree with everyone else. It's pretty fascinating because it's just one little thing that controls all your perceptions and everything you know. *Interview by Keelia Quinn de Launay*

### Special Thanks

Nancy Dong (Physiology) for organizing and leading the U of T student volunteers; Professor Amy Ramsey (Pharmacology) for leading the live-animal Research Demonstration; Suhail Asrar (CPIN Office Administration)

## 2017 Toronto Brain Bee Sponsors

