

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 29, No. 6 – May 2013

CPIN Research Day Updates

Presentations Students will present their research progress as one of the CPIN program requirements. All CPIN members are invited to attend the CPIN Research Day and to provide feedback to our students through this annual inter-/intra-departmental event. The success of the CPIN program is dependent on the support of every CPIN member.

Career workshop The 2013 CPIN Research Day Organizing Committee will host the pre-event Career Workshop (9:30 to 11:30 am) on June 10 at MSB 2172. (see also page 2) <http://neuroscience.utoronto.ca/events.htm>

Poster presentation awards The Organizing Committee is pleased to announce that excellent poster presentations will be recognized through evaluation by CPIN faculty members and awarded by the CPIN Executive Committee.

Student's Choice Awards The Organizing Committee has created the "Student's Choice Awards". All registered students are invited to vote for your favourite visual and oral poster presentations.

CPIN Research Day Sponsorship The 2013 CPIN Research Day Organizing Committee wish to acknowledge the following sponsors: The Faculty of Medicine, Baycrest Centre Rotman Research Institute, Mount Sinai Hospital Samuel Lunenfeld Research Institute, SickKids Research Institute Neuroscience & Mental Health, St. Michael's Hospital, Toronto Western Research Institute, Ontario Brain Institute, Parkinson Society Canada, Olympus Canada, and Departments of Anesthesia, Computer Science, Laboratory Medicine & Pathobiology, Pharmacology & Toxicology, Physiology and Psychiatry, and Human Biology Program (see page 5) http://neuroscience.utoronto.ca/events/CPIN_Research_Day.htm.

Announcements

Welcome New CPIN Executive Committee Member The CPIN executive committee is pleased to welcome the new member, Dr. Ruth Ross, who serves as the representative of the Department of Pharmacology and Toxicology. (see also page 2)

CPIN Cortex Club The CPIN Graduate Executives are proud to announce a merger of The University of Toronto Cortex Club to CPIN. Details on page 3.

Postdoctoral Fellows Postdoctoral fellows are welcome to join CPIN mailing list, please fill out the form at http://neuroscience.utoronto.ca/students2013/Postdoctoral_Fellow_Membership.htm. CPIN postdoctoral fellows who are interested in CPIN activity organization, please email p.neuroscience@utoronto.ca.

Visiting Graduate Research Students You may register for a CPIN Visiting Graduate Research Student Membership at <http://neuroscience.utoronto.ca/students2013/visiting.htm>.

Upcoming Events

CPIN Research Day (<http://neuroscience.utoronto.ca/events/lectureship.htm>)

Raymond and Beverly Sackler Distinguished Lecture

Speaker | Dr. Brian K Kobilka, Professor (2012 Nobel Prize Laureate in Chemistry),
Stanford University School of Medicine

Date | June 10, 2013

Time | 4:45 - 5:45 pm

Title | *Structural Insights into the Dynamic Process of G-protein-coupled Receptor Activation*

Location | JJR MacLeod Auditorium, Medical Sciences Building 2158

Host | Oliver Ernst, Professor, Department of Biochemistry

<http://neuroscience.utoronto.ca/events/sackler.htm>



CPIN Newsletter

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Upcoming Events (continued)

CPIN Career Workshop – Non-Conventional Careers

<http://neuroscience.utoronto.ca/events/2013workshop.htm>

Date | Monday, June 10, 2013

Time | 9:30 – 11:00 am (11:00 - 11:30: Meet with the speakers at Stone Lobby with refreshments)

Location | Room 2172, Medical Sciences Building

Speakers | Dr. Christa Studzinski, Senior Program Lead of Research Programs, OBI

Dr. Ruslan Dorfman, co-founder, Geneyouin Inc.

Dr. Alison Denney, Senior Program Lead for Industry Relations, OBI

Dr. Philip Caffrey, Public Policy and Programs Analyst, Alzheimer's Society of Ontario

Dr. Kirk Nysten, Acting Director of Operations and Outreach, OBI

Theme of the Workshop | *Alternative career options of Neuroscience Graduates*

Host | Janice Robertson and Zhong-Ping Feng, CPIN Research Day Organizing Committee

UofT seminars - for information on upcoming seminars, visit <http://neuroscience.utoronto.ca/events/seminar.htm>

Conferences and Meetings – for more information, visit http://neuroscience.utoronto.ca/events/Conf_M.htm

Introducing Our New CPIN Faculty Member



Ruth A. Ross Dr. Ruth Ross previously held a Chair in Molecular Pharmacology at The University of Aberdeen in Scotland where she was also Director of the Kosterlitz Centre for Therapeutics. She is currently the Chair of the Department of Pharmacology and Toxicology at the University of Toronto. Her research is focussed on the molecular pharmacology of the endocannabinoids, phytocannabinoids and small molecules targeting the cannabinoid system. The ultimate goal of her research is to exploit the endocannabinoid system for development of novel therapeutics and to gain greater understanding the pharmacology of cannabis constituents. Her current research involves characterisation an allosteric binding site on the cannabinoid CB1 receptor, heralding a new avenue of drug discovery that may offer significant advantages over the existing portfolio of selective direct agonists and competitive antagonists for the cannabinoid receptors. In addition, she is investigating the pharmacology and signalling of GPR55, identifying a role of this orphan receptor in tumour cell migration, bone biology and brain function.

Congratulations to the graduates of the CPIN program

Last name	First name	Program	Department	Supervisor
Canabal	Alonso Martínez	PhD	IMS	Paul Frankland

Welcome New CPIN Students

Last name	First name	Program	Department	Supervisor
Ye	Annette	MSc	IMS	Margot Taylor!

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CPIN Cortex Club

The Collaborative Program in Neuroscience is proud to announce a merger of The University of Toronto Cortex Club to CPIN. Cortex Club is a unique seminar series dealing with cutting-edge topics and significant, challenging issues in neuroscience. It is organized and run by graduate students, and provides an informal and egalitarian environment designed to encourage cross-talk and innovation. At each Cortex Club event, a visiting researcher is asked to present a mixture of novel, technical, speculative, and possibly even controversial work or ideas. Attendees are encouraged to ask questions, make comments, and discuss with each other during the invited speaker's presentation. The direction of the discussion is allowed to evolve organically, whether that be down towards the nitty-gritty technical details of a new methodology, or up towards lofty ideas about the nature of the brain and the future of neuroscience.

Cortex Club was originally founded at the University of Oxford in 2009, where it has become, in the words of Prof. Gero Miesenböck, "... perhaps the premier forum for the discussion of neuroscience in Oxford". The Club has now spread to two new continents; the most recent addition was the University of Cape Town Cortex Club in South Africa, which was preceded by the University of Toronto Cortex Club. With the support of the CIHR Sleep and Biological Rhythms Program, the Toronto chapter was started in 2012 by Dr. Blake Richards (who was President of the Club in Oxford from 2010-2011) and Dr. Jimmy Fraigne. Several Cortex Club events have been held here in Toronto that have been attended to capacity, on subjects including optogenetics, pharmacogenetics, early visual development, and large-scale computer models of the brain.

The principal reason for its rapid growth is that the Cortex Club provides graduate students a chance to interact with the world's leading neuroscientists in a manner that standard seminars or luncheons do not. It also provides invaluable leadership and networking experience for graduate students, helping them to build connections within the global neuroscience community. These principles fit the mandates of CPIN. More information about the University of Toronto Cortex Club can be found at the website cortexclub.ca.

In 2013-2014 year, as a part of CPIN, Cortex Club will continue organizing events with leaders in neuroscience as part of our CPIN graduate activities. We are looking forward to an exciting year of neuroscience!



CPIN Research Day Joint Neuroscience Events June Preliminary Program (<http://neuroscience.utoronto.ca/events.htm>)

Monday, June 10, 2013

Medical Sciences Building, University of Toronto
1 King's College Circle

Collaborative Program In Neuroscience (CPIN) Research Day

9:30 Pre-event: Career Workshop: Non-conventional careers (MSB2172)

Dr. Christa Studzinski, Senior Program Lead of Research Programs,

Dr. Ruslan Dorfman, co-founder, Geneyouin Inc.

Dr. Alison Denney, Senior Program Lead from Industry Relations, OBI

Dr. Philip Caffrey, Public Policy and Programs Analyst, Alzheimer's Society of Ontario

Dr. Kirk Nysten, Acting Director of Operations and Outreach, OBI

Theme of the Workshop | Alternative career options of Neuroscience Graduates

11:00 Refreshments – Meet with the workshop speakers (Stone Lobby)

11:30 Registration and poster set-up (Stone Lobby)

12:00 Opening remarks, poster presentation grouping, and Lunch

12:30 - 16:00 CPIN Poster Presentation and evaluation

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CPIN Research Day joint Neuroscience Events (cont'd)

Monday, June 10, 2013

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16:00 CPIN Group Photo (Outside of MSB, by Macleod Auditorium)

Raymond and Beverly Sackler Distinguished Lecture (JJR MacLeod Auditorium, MSB2158)

16:30 Welcome remarks

16:45 Professor Brian Kobilka (Stanford University, U.S.A.)

Structural Insights into the Dynamic Process of G-protein-coupled Receptor Activation

17:45 CPIN Poster presentation awards announcement

Tuesday, June 11, 2013

International Symposium of Structural Neurobiology

(<http://cettesemaine.utoronto.ca/?q=ProgramNeurobiologyJune2013>)

Room B-150 (1 floor below ground level)

Pharmacy Building, University of Toronto

144 College St.

9:00 - 10:30 Session 1

G-Protein Coupled Receptors (GPCRs)

Chair: TBA

9:00 Opening remarks

9:10 Scott Prosser (University of Toronto, Canada), The Role of Dynamics in Activation of the Beta Adrenoreceptor - 19F NMR

9:35 Oliver Ernst (University of Toronto, Canada), Structural Insights into First Steps of Seeing

10:00 Dwayne Miller (University of Hamburg, Germany/University of Toronto, Canada), Mapping Molecular Motions with Ultrabright Electrons: Towards the Space-Time Limits to the Structure-Function Correlation of Biological Systems

10:35 - 11:00 Coffee Break

11:00 Tom Sakmar (Rockefeller University, New York, U.S.A.), Probing Receptor Activation with Genetically-Encoded Unnatural Amino Acids

11:35 Brian Shoichet (University of California, San Francisco, U.S.A./University of Toronto, Canada), Structure-Based and Chemoinformatics Discovery of GPCR Ligands and Pharmacology

12:00 - 14:00 Lunch and Poster Session

14:00 - 15:35 Session 2

Transporters and Ion channels

Chair: Reinhart Reithmeier (University of Toronto, Canada)

14:05 Da-Neng Wang (New York University School of Medicine, New York, U.S.A.), Structure and Mechanism of a Bacterial INDY Homolog — A Sodium-dependent Carboxylate Transporter Involved in Fatty Acid Synthesis and Obesity

14:40 Ernst Bamberg (Max Planck Institute of Biophysics, Frankfurt, Germany), Microbial Rhodopsins in Optogenetics

15:15 Emil Pai (University of Toronto, Canada), CorA, A Different Kind of Ion Channel

15:40 - 16:00 Coffee Break

16:00 - 17:10 Session 3

Approaches to Drug Discovery

Chair: Ruth Ross (University of Toronto, Canada)

16:05 Ron Dror (DEShaw Research, New York, U.S.A.), How Drugs Bind and Control their Targets: Characterizing GPCR Signaling Through Atomic-level Simulation

16:40 Andrew Doré, Heptares Therapeutics (Welwyn Garden City, UK), StaR's® and Structures: Enabling GPCR Drug Discovery

17:15 Closing remarks - end of the scientific meeting

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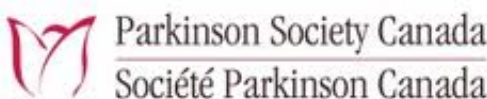
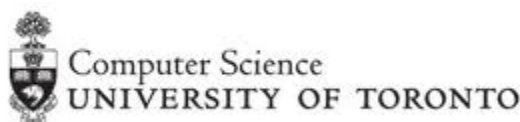
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CPIN Research Day is generously supported by:



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& Mental Health

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The CPIN Research Day Organizing Committee Oliver Ernst (also the organizer of the Structural Neurobiology Symposium; Biochemistry), Zhong-Ping Feng (Committee Chair; Physiology), Lili-Naz Hazrati (LMP), Janice Robertson (LMP), Albert Wong (IMS), and CPIN Graduate Student Executives (<http://neuroscience.utoronto.ca/aboutus/GScommittees.htm>).

Reminders

Call for images/pictures/photos submission Selected submissions will be posted on the CPIN website and in other CPIN related media publications. Please submit your work to p.neuroscience@utoronto.ca, and remark the photo credit.

Call for Logos – Thank you to all who have submitted CPIN logos! For those who haven't yet, there's still time! For the opportunity to have your artwork represent the Neuroscience Collaborative Program at U of Toronto, please submit your CPIN logo to p.neuroscience@utoronto.ca. For appropriate quality and scalability, vector based figures are preferred.

Funding and Sponsorship – CPIN is continuously looking for new sources of funding and sponsorship. Please contact us at p.neuroscience@utoronto.ca with ideas or suggestions.