

Collaborative Program in Neuroscience (CPIN)

University of Toronto

Newsletter – Vol. 32, No. 9 – May 2016

Featured In This Issue

Award Announcement: Jonathan Dostrovsky Award in Neuroscience Established by the generosity of Dr. Jonathan Dostrovsky, this new award recognizes and supports excellence amongst graduate students enrolled in the Collaborative Program in Neuroscience. Please see page 2 for more details.

Welcome New Sponsor We would like to welcome our new sponsor, the **Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research**. Please see below for more details.

CPIN NeuroCentricArts Competition The CPIN NeuroCentricArts competition was held for the first time on April 29, 2016 at the University of Toronto Medical Sciences Building. This free-form art competition featured artworks influenced by neuroscience in order to engage both scientific and non-scientific personnel in a common environment. Please see pages 3-5 for the event summary and list of Best in Show Award winners.

2015-16 CPIN Distinguished Lectureship Series

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

Speaker | **Dr. Vittorio Gallo**, Professor, Pharmacology, Physiology and Pediatrics, George Washington University School of Medicine and Health Sciences; Director, Center for Neuroscience Research, Children's Research Institute, Children's National, Washington DC; Director, Intellectual and Developmental Disabilities Research Center, Children's Research Institute, Children's National, Washington DC

Title | *Astrocyte-Oligodendrocyte Signaling in White Matter Development and Regeneration*

Date | **Friday, June 10, 2016**

Time | 11:00 am

Location | Room PB150, Leslie L. Dan Pharmacy Building, 144 College Street, U of T

Host | Dr. David Hampson, Professor, Depts. of Pharmaceutical Sciences and Pharmacology, U of T

Co-sponsor | CIHR Training Program in Biological Therapeutics



Welcome New Sponsor

<http://www.neuroscience.utoronto.ca/aboutus/Sponsors.htm>

CPIN would like to welcome our new sponsor, the **Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research** (<http://hsrlce.utoronto.ca/>).



The Heart & Stroke/Richard Lewar Centre of Excellence in Cardiovascular Research (HSRLCE) is a multi-disciplinary, multi-sited research centre at the University of Toronto. We are dedicated to tackling the most pressing issues in cardiovascular research. Our centre spans four pillars of basic, translational, clinical trials and population health research, and is home to some of Canada's most renowned investigators. We are uniquely qualified to address questions of discovery, innovation and public health. HSRLCE's investigators are building upon their important discoveries with the view of translating innovation into clinical practice. We are also dedicated to developing the best educational programs for our graduate students and undergraduates and are very proud of our Michael J. Sole Annual Cardiovascular Scientific Day and monthly Distinguished Visiting Professor Lecture Series for our Faculty and trainees. We offer trainee support through our annual undergraduate, studentship and fellowship awards. We also offer a \$250K grant towards diabetes and cardiovascular research in partnership with UofT's Faculty of Medicine, Banting & Best Diabetes Centre and AstraZeneca. The HSRLCE is dedicated to the University's promise of the three Is: Integration, Innovation and Impact. Our mission is to foster a collaborative research and educational environment, locally and internationally, that transforms cardiovascular health. Our vision is to conquer cardiovascular disease through research and education.

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

CPIN Newsletter

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Faculty of Medicine

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Dentistry
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Physiology
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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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Jonathan Dostrovsky Award in Neuroscience

http://www.neuroscience.utoronto.ca/award_opportunities/jonathan_dostrovsky_award.htm



Award Overview

Student Application Deadline: June 15 2016 for 2016 award

Where to apply: Office of the Collaborative Program in Neuroscience

Value of the annual award: \$1000 (for the 2016 award)

Duration of award: 1 year

Level of study: Graduate Studies

Purpose:

Established by the generosity of Dr. Jonathan Dostrovsky, this annual award recognizes and supports excellence amongst graduate students enrolled in the Collaborative Program in Neuroscience and will be selected based on academic merit.

Dr. Jonathan Dostrovsky:

Dr. Dostrovsky completed his undergraduate studies in physics and mathematics at the Israel Institute of Technology in 1969 and then proceeded to graduate studies in the Department of Physiology at University College London where he obtained his M.Sc. degree in 1971 under the supervision of John O'Keefe. His master's research project with O'Keefe led to the important discovery of 'place cells' in the hippocampus, and their seminal paper describing their findings has become a cornerstone in the field of spatial navigation and hippocampal function. Dr. Dostrovsky moved to Toronto where he obtained his PhD degree in the Zoology Dept. in 1974 for studies on pain processing in the spinal cord. Following 3-years of postdoctoral research in London on the somatosensory system with special emphasis on plasticity, with Pat Wall, he returned to the University of Toronto to take up a position in the Department of Physiology. He was promoted full professor in 1989 and is currently a Professor Emeritus in the Department of Physiology and Faculty of Dentistry.

Throughout his career Dr. Dostrovsky has made significant advances in our understanding of the neurophysiological basis of pain perception, somatosensory information processing, brain plasticity and basal-ganglia related movement disorders. A hallmark of these studies is the elegant combination of experiments executed in various animal models and in humans. For example, data from the Dostrovsky lab shed light on how thermal and noxious information is processed at the level of the thalamus in humans and in a rat model of allodynia. In a publication in Nature, Dr. Dostrovsky demonstrated how thalamic networks could contribute to phantom sensations in amputees. He also studied this question in animal models, where the plasticity of the sensory map in thalamic networks was demonstrated in rats after the removal of the hind-limb input. In a series of elegant studies he has unveiled the relationship between movement disorders and altered basal ganglia oscillatory activity. These studies have significantly contributed to our current understanding of central physiological mechanisms in the somatosensory and motor networks which underlie our perception of tactile, thermal and painful stimuli and the pathophysiological alterations that occur following certain traumatic or disease-induced injuries to the nervous system. He was also very actively involved in neuroscience education at the University at the undergraduate, graduate and postdoctoral levels, and has served on many committees at all levels. In particular he served as Director of CPIN from 1993 to 2008, and as the President /Vice President of the Canadian Association for Neuroscience from 2003 to 2007.

Application Process:

Completed applications will include the following:

- CV including publications
- 2 letters of support, including one from the student's supervisor, to be sent in PDF format to the CPIN Office (p.neuroscience@utoronto.ca) directly from the issuing professor's official email address
- Summary of student's current research project and future career plans (2 pages maximum)

Results:

All applicants will be notified of the results of the competition in September 2016

Please visit the CPIN website for application details:

http://www.neuroscience.utoronto.ca/award_opportunities/jonathan_dostrovsky_award.htm

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CPIN NeuroCentricArts Competition

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

The **CPIN NeuroCentricArts** competition was held for the first time on April 29, 2016 at the University of Toronto Medical Sciences Building. This free-form art competition featured artworks influenced by neuroscience in order to engage both scientific and non-scientific personnel in a common environment. The contest was open to everyone and showcased a diverse array of entries including animations, computer generated illustrations, paintings, photography, 3D structures and more. A panel of judges with scientific, artistic or both backgrounds evaluated the entries to decide upon four Best in Show awards (please see page 5). Over 200 visitors from both U of T and external institutions attended the event to view the entries.



(NeuroCentricArts Photos credits: Tahani Baakdhah, Zhong-Ping Feng, Suhail Asrar and Vladislav Sekulic)

CPIN NeuroCentricArts Sponsorship The CPIN NeuroCentricArts Organizing Committee wish to acknowledge the following sponsors: the Krembil Research Institute, the Departments of Cell & System Biology, Psychology, and Computer Science from Faculty of Arts and Science; Graduate Department of Dentistry from Faculty of Dentistry; Departments of Biochemistry, Laboratory Medicine & Pathobiology, Medical Biophysics, Pharmacology, Physiology, Rehabilitation Science, Institute of Biomaterials & Biomedical Engineering, and Institute of Medical Science from Faculty of Medicine; Graduate Department of Pharmaceutical Sciences from Faculty of Pharmacy; the Dalla Lana School of Public Health from Faculty of Public Health; Department of Applied Psychology & Human Development from Ontario Institute For Studies in Education; the Graduate Department of Music from Faculty of Music; the U of T Human Biology Program and the St. Michael's Neuroscience Research Program. See page 5 & our website for more details (<http://www.neuroscience.utoronto.ca/events/neurocentricarts.htm>).

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

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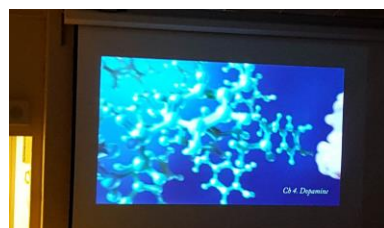
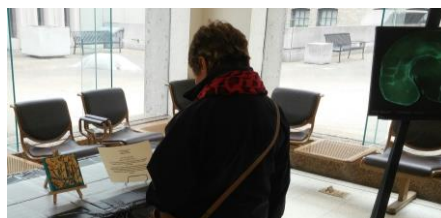
CPIN NeuroCentricArts Competition (contd.)

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

The **organizing committee** of the CPIN NeuroCentricArts competition comprised of Suhail Asrar (CPIN Alumnus and Administrator), Zhong-Ping Feng (CPIN Director; Professor, Physiology) and Alexandre Guet-McCreight (Graduate Student, Physiology, Skinner lab).



Thank you to the Judges The CPIN NeuroCentricArts Organizing Committee would like to thank the judging team: Radha Chaddah (Visual Artist and Scientist; Ellis Studio, Toronto; Neurobiology Research Group of Dr. Derek Vander Kooy, U of T), Tibi Hegyesi (Visual Artist), Jane Irwin (Artist), Mingyao Liu (Director, Institute of Medical Science U of T; Professor, Department of Surgery, U of T; Senior Scientist, Toronto General Research Institute), Kevin Millar (Vice President, Production; INVIVO Communications Inc) and Alexandra Stewart (Executive Director, Weston Brain Institute).



Thank you to the Volunteers The CPIN NeuroCentricArts Organizing Committee would like to acknowledge the volunteer team: Tahani Baakdhah (Institute of Medical Science, van der Kooy lab), Luisa Garzon (Rehabilitation Science institute, Fehlings lab), Ayda Ghahremani (Institute of Medical Science, Chen lab), Kirusanthy Kaneshwaran (Physiology, Orser lab), Chantel Kowalchuk (Institute of Medical Science, Hahn lab), Flora Nasri (Physiology, Wojtowicz lab), Vladislav Sekulic (Physiology, Skinner lab), Yohan Yee (Medical Biophysics, Lerch lab) and Veronica Yuk (Psychology, Taylor lab).

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

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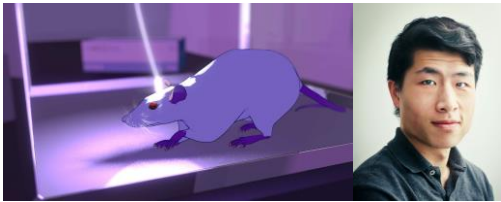
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CPIN NeuroCentricArts Competition (contd.)

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

CPIN NeuroCentricArts Best in Show Award Winners

The NeuroCentricArts Best In Show Award winners were announced at the **2016 CPIN Research Day held on May 19, 2016.**



Artist: Eric Chung

Category: Original Computer Animation

Title: Optogenetics: Controlling the brain with light



Artist: Zahra Emami

Category: Acrylic Painting

Title: Universal Minds



Artist: Stephanie Holbik

Category: Photography

Title: The Shadow We Cast on Nature



Artist: Shraddha Pai

Category: Fabric Appliqué

Title: Room with a View

Event Sponsors

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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

Baycrest Research Training Centre Innovative Perspectives in Neuroscience Conference

Event Date: June 20, 2016

Toronto, ON

The Research Training Centre (RTC) is pleased to announce its inaugural Innovative Perspectives in Neuroscience Conference at the Rotman Research Institute at Baycrest. This conference will provide attendees the opportunity to gain hands-on, practical and interactive experience with industry experts as well as explore exciting careers in neuroscience.

[Visit the website for registration information](#)

2016 Toronto Acquired Brain Injury Network Conference

Event Dates: November 10 & 11, 2016

Toronto Marriott Downtown Eaton Centre Hotel

[View the conference website](#)

Neuroscience Opportunities

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

PhD or Postdoctoral position

CHU de Québec Research Center (CHUL)

Quebec City

Description: A PhD or postdoctoral position is available starting September 2016 to work on the project at the interface between the neuronal signalling and immune system through a multidisciplinary approach combining intravital imaging and immunological and genetic interventions. Several techniques will be used including electrophysiology, two-photon microscopy on behaving mice, pharmacogenetics and immunogenetics in different models of Alzheimer's disease.

For further information, please visit the CPIN website:

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

Reminders

Call for CPIN 2016-2017 Distinguished Lecturer Nominations CPIN trainee & faculty members are welcome to nominate potential speakers for the 2016-2017 Distinguished Lectureship Series. The nominations will be reviewed by the CPIN Executive Committee for approval. Your participation is important and contributes to the multidisciplinary nature of the lectureship. The online form can be found at the following link:

http://www.neuroscience.utoronto.ca/events/lectureship/distinguished_lecturer_nominations.htm

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

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

Trainee Record Updates The CPIN Office is updating its records & requests that all CPIN students & postdoctoral fellows provide information pertaining to awards, publications & other achievements on the online form at the link below:

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

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