



CAN Connection

The Canadian Association for Neuroscience Newsletter

Spring Edition - April 2015

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Dear Colleagues,

I am very proud to announce that Michael Gordon, from the University of British Columbia is the winner of the 2015 CAN Young Investigator award. **Read more about in Michael's important discoveries in his profile on the next page.**

I also want to remind you to register for the upcoming Canadian Neuroscience Meeting, which will take place in Vancouver, May 24 - 27 2015. View the meeting website here: <http://can-acn.org/meeting2015>.

Regular registration rates apply until **May 4th 2015**, so register today!

I want to thank our members who have submitted proposals for parallel symposia this year. We received a number of great proposals, and the program committee worked hard to select symposia that are not only scientifically exciting, but that also cover a wide range of neuroscience topics, and feature both renowned and upcoming neuroscientists. You will find the full listing of parallel symposia in our program: <http://can-acn.org/2015-program>

We will be holding elections soon, so consider **becoming a part of the CAN Board of Directors**. You can help shape the future of our association! All the details on the last page of this newsletter.

Douglas Munoz

President

Canadian Association for Neuroscience

Michael Douglas Gordon is the 2015 CAN Young Investigator Awardee



The Canadian Association for Neuroscience (CAN) is proud to announce that Michael Gordon, from the University of British Columbia, will be awarded the 2015 CAN Young Investigator Award at the upcoming 9th Annual Canadian Neuroscience Meeting in Vancouver, British Columbia on May 24th 2015.

Dr. Michael Gordon's research provides insight into two of the most critical decisions we, and other animals, have to make: what to eat, and how much. He studies this important and complex question in the fruit fly, *Drosophila melanogaster*, which has a relatively simple nervous system, with one million times fewer neurons than ours, yet displays a complex array of behaviours in response to food cues. He has significantly contributed to our understanding of the neural circuits that drive taste responses and feeding preferences.

Using the fly brain as a model, the Gordon lab combines molecular genetics with optical techniques and electrophysiology to map taste circuits, probe how these circuits encode information, and unravel their impact on feeding. These studies contribute to our understanding of how the brain translates sensory information into behaviour.

Dr. Gordon's work has shown that food preference can be viewed as a changing metric, based initially on taste, but evolving with experience, and the animal's physiological condition. These studies support the concept that in addition to sensing the palatability of food, like the sweetness or bitterness, flies also have a mechanism for sensing its caloric content, and that this could drive longer-term food preferences.

More recently, Dr. Gordon's team has uncovered a neural mechanism used by the fly brain to integrate the opposing effects of sweet and bitter tastes. Information from multiple sensory cues, the physiological state and experience of the animals thus all contribute to guiding feeding decisions.

Within a very short time period as an independent researcher, Dr. Michael Gordon has established himself as an exceptional young scientist and a rising star in Canadian Neuroscience. We are very proud to present him with the 2015 CAN Young Investigator Award.

Read more about Dr. Michael Gordon and view a list of his key publications on the CAN-ACN website: <http://can-acn.org/michael-douglas-gordon-is-the-2015-can-young-investigator-awardee>

9th Annual Canadian Neuroscience Meeting May 24 - 27 2015 - Vancouver

- ◇ Register today at the regular rate - UNTIL MAY 4th 2015
- ◇ View the latest program updates including the selected parallel symposia
- ◇ Book your room at the Westin Bayshore
- ◇ Get information about sponsoring / exhibiting
- ◇ View the list of confirmed exhibitors
- ◇ Register for a satellite meeting

<http://can-acn.org/meeting2015>

2015 CAN Travel award winners - Congratulations to all!

Name	Affiliation	Supervisor
Emily Capaldo	Dalhousie University	Angelo Iulianella
Emma Louise Louth	University of Guelph	Craig Bailey
Ahmed Abdelfattah	University of Alberta	Robert E Campbell
Nasr Ahmad Iqbal Farooqi	McGill University	Edward S Ruthazer
David Nguyen	University of Toronto	Rutsuko Ito
Sara A Rafique	York University	Jennifer K E Steeves
Ian A Prescott	Queen's University	Ron Levy
Kevin Fu-Hsiang Lee	University of Ottawa	Jean-Claude Béique
Rim Khazall	Carleton University	Alfonso Abizaid
Manoj Nair	University of Saskatchewan	Veronica Campanucci
Valentina Mercaldo	Hospital for Sick Children Toronto	Sheena Josselyn
Bensun Fong	University of Ottawa	Ruth Slack
Scott Yuzwa	Hospital for Sick Children Toronto	Freda Miller
Don A Davies	University of Saskatchewan	John Howland
Xiao Luo	Université Laval	Lisa Topolnik
Pauline Léveillé	Université de Sherbrooke	Mélanie Plourde
Mohamed Ariff Iqbal	University of Manitoba	Eftekhar Eftekharpour
Lia Mesbah-Oskui	University of Toronto	Richard L Horner
Lily Qiu	University of Toronto	Jason Lerch
Christine T Wong	York University	Dorota Crawford
Josiane C S Mapplebeck	Hospital for Sick Children Toronto	Michael Salter
Kirill Zaslavsky	University of Toronto	James Ellis
Kristyn Campbell	University of Manitoba	Stephanie Booth

Hot neuroscience topics: Stroke recovery, Brain control of blood pressure

It is estimated that 15 million people suffer strokes worldwide every year. Three recent discoveries by Canadian Neuroscientists show great promise to help these patients.

Research by **Michael Hill**, from the Hotchkiss Brain Institute, shows that a procedure to remove clot, known as endovascular treatment, can dramatically increase positive outcome for stroke patients. The study, published in the *New England Journal of Medicine* included 22 sites across the world. "These results will impact stroke care around the world" says Dr. Hill. Read more: [Press release](#) - [Research article](#).

"A big challenge in treating stroke is understanding how other health conditions affect recovery", says Dr. Craig Brown, at the University of Victoria. Diabetes increases the chances of suffering a stroke, and affects millions in Canada. Dr. Brown has found that a cancer drug, known to reduce blood vessel leakage, can lead to better recovery, specifically for diabetic mice. His results highlight the fact that treatments must be tailored to the needs of the patients, and their specific health condition. This study was published in the *Journal of Neuroscience*. Read more: [Press release](#) - [Research article](#).

Brain swelling, that occurs in the hours and days following stroke can lead to brain damage and even death. This swelling is caused by excessive water and sodium chloride entering nerve cells in the brain. In a recent paper in the journal *Cell*, **Brian MacVicar** from the Djavad Mowafaghian Centre for Brain Health has discovered a single protein, SLC26A11—that acts as a channel for chloride to enter nerve cells, and has shown that shutting this channel stops fluid accumulation and swelling of cells. The

identification of this protein provides a novel target to develop therapeutic drugs to prevent brain swelling at its source. Read more: [Press release](#) - [Research article](#).

Your brain and blood pressure

Recent research by **Jessica Yue**, at the University of Alberta, shows how the brain can use the presence of fatty acids, which are building blocks of fat molecules, to trigger the liver to reduce its own lipid production. Unfortunately, this trigger does not work in obesity, a situation in which blood lipid levels are high. **Yue's findings show how this faulty signal can be bypassed, potentially unveiling other ways to trigger reduction in lipid production from the liver in obese people.** This would help reduce the atherosclerosis—a hardening and narrowing of the arteries—caused by fat build up, and one of the main causes of cardiovascular disease. Read more: [Press release](#) | [Research Article](#)

Dr. **Charles Bourque**, from McGill University, has recently published a paper in *Neuron* that helps explain how high salt intake increases blood pressure. He found that high salt intake disables Vasopressin releasing neurons, **normally activated by the body's arterial pressure detection circuit.** High amount of salt, ingested over a long period of time, thereby prevents a natural safety mechanism in the brain, and results in the rising of blood pressure. Read more: [Press release](#) | [Research Article](#)

Read more recent stories in the Neuroscience News section of our website, updated weekly. View our archives: <http://can.acn.org/2015>

You can submit your press releases to us for inclusion on our website: info@can-acn.org

Congratulations!



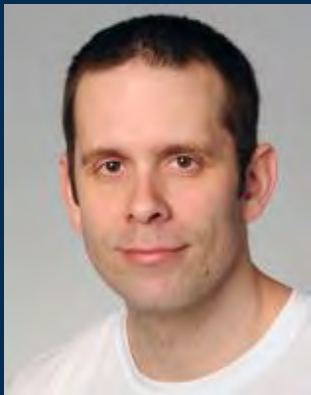
McGill's Brian Chen among winners of NIH's Follow that Cell Challenge phase 1

[Read news item in McGill's Med E-news](#)



Isabelle Peretz, from Université de Montréal, received the Excellence prize from the Fonds de recherche du Québec – nature et technologies

Read more: [Université de Montréal news](#)



Alain Frigon - Université de Sherbrooke, won the Beverly Petterson Bishop Award - Excellence in Neuroscience from the American Physiological Society

[Read more on the APS website](#)



University of Toronto's Julie Lefebvre received a Sloan Research Fellowship for early-career achievements

Read more: [University of Toronto news](#)



Shayna Rosenbaum received York University's President's Emerging Research Leadership Award

Read more in [York U News](#)



Dr Molly Shoichet, L'Oréal-UNESCO Women in Science Award winner

Read more on [cbc.ca](#)



Dr. Catherine Zahn receives Order of Canada for work at CAMH

Read more on [insi-detoronto.com](#)



[Catharine Winstanley](#) awarded a UBC Killam research prize, recognizing outstanding research and scholarly contributions

Read more on the [UBC research website](#)

First Canadian Undergraduate Neuroscience Conference University of Alberta, June 22-24, 2015

Presented with the support of the Canadian Association for Neuroscience and University of Alberta's Neuroscience and Mental Health Institute.

From the organizers: "Our vision is to kick-start an annual, 3-day long traveling conference, which would be planned and hosted each year by a different university's student group. It will be a fantastic chance for neuroscience-oriented undergraduate and graduate students from all over the country to share their research and interests, to polish up on their presentation and organization skills, to network with both researchers and industry leaders, and of course, with one another."

The lineup includes 28 student talks, an industry mixer, poster presentations and plenary lectures from a number of top

researchers at the U of A including Dr. Jaynie Yang, Dr. Valerie Sim, Dr. Christian Beaulieu, Dr. Roger Dixon, as well as Dr. David Juncker from McGill University and Dr. Geoffrey Ling from The Defense Advanced Research Projects Agency.

Accepting abstracts until May 30th. Come, make a poster, present a talk, or just listen! Visit the website to register.

<http://cunc.ca/>



CAN Board member elections

CAN will be holding elections this Summer for

- two members of the CAN Board of Directors
- CAN Secretary

A call for nominations will be sent in the Spring, with a nomination deadline after the CAN meeting, June 19th.

Documents required:

- A CV
- nomination letter from a CAN member.

Consider becoming part of the CAN team!

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Neuroscience news, a list of upcoming events, job offers, and more!