

science



Dean's Round-up: October 2018

Faculty Highlights



The second-year physics and optics labs, Petrie 210 and 220, respectively, re-opened after renovations to the space, plus new equipment to bring updated, real-world learning to students thanks to the efforts of **Matthew George** and **Marshall McCall** (both Physics and Astronomy). Read about it in [YFile](#)



York Science Communicator in Residence Molly Segal held a workshop and invited guest and CBC Radio "Quirks & Quarks" producer Sonya Buyting to join her. The session was designed to help researchers better communicate their research. It was also covered in [YFile](#).



Dasantila Golemi-Kotra (Biology) talks about the likelihood of ancient bacteria and viruses, currently frozen, thawing and coming back to life in a new [Did YU Know](#) video.

The Faculty of Science at York University, Ontario Nature, and the Toronto Public Library present:



Our public lectures series at the Toronto Public Library, [Biodiversity: Conservation in the Twenty-First Century](#), in collaboration with Ontario Nature, wrapped up in October with speakers **Laurence Packer** (Biology), **Valerie Schoof** (Glendon), **Gregory Thiemann** (Faculty of Environmental Studies), **Bridget Stutchbury** (Biology) and **Gail Fraser** (Faculty of Environmental Studies).

Congratulations

It feels good to be at the top! **Jennifer Chen** (Chemistry) was named to the Top 40 Under 40 Power List 2018 by [the Analytical Scientist](#) magazine. The list includes people from around the globe who are already having a big impact on the field of analytical science.

Sylvie Morin (Chemistry) received an **NSERC Engage Grant** to work on the project, titled Identification of key parameters in adjuvant efficiency, as well as an Ontario Centres of Excellence Voucher for Innovation and Productivity 1. The [VIP 1 program](#) supports collaborations between universities and industry.

Ryan Hili (Chemistry) received the **Petro-Canada Young Innovator award** for his program on developing modified nucleic acid polymers, using synthetic DNA template libraries, to evolve new polymers that can be used as high-affinity tools for biomedical research.

Amro Zayed (Biology) was elected as the president of the [Entomological Society of Ontario](#), Canada's oldest entomological society (turning 150 next year) and second oldest entomological society in North America.

PhD biology student Nadia Tsvetkov (supervised by Associate Professor Amro Zayed) was awarded the [2018 CAPA Student Merit award](#) for outstanding achievement by a student in the field of apiculture.

Other News

Laurence Packer (Biology) presented talks on Beauty and Importance of Bees at the Don Mills Library - part of the York library science series - and the Richmond Hill Centre for the Performing Arts. He also presented Bees of the World's Driest Desert at the Toronto Entomologist's Association.

Ilijas Farah (Mathematics and Statistics) gave a departmental colloquium on the "[Rigidity of uniform Roe algebras and coronas](#)" at the University of Illinois Urbana-Champaign at 4pm on Oct. 25. Also, video of her Sept. 27 [colloquium](#) at the Ohio State University is now online.

Dawn Bazely (Biology) helped organized the [fourth celebration of International Ada Lovelace Day](#) at York University.

Paul Delaney (Physics and Astronomy) talked about Stellar Evolution at the York Astronomy Club and Exploring Mars at the Rexdale STEM Club. He also did a lecture on Mars at McMaster ISCI.

Ahmed Hussin (Biology) gets his first paper, "[Sharp-wave ripple features in macaques depend on behavioral state and cell-type specific firing](#)," accepted in the journal *Hippocampus* since finishing his PhD.

Hélène Mialet (Science and Technology Studies) gave a talk, Being Well Together: Human-animal collaboration, companionship and the promotion of health and wellbeing, and participated in a workshop at the Centre for the History of Science, Technology and Medicine in Manchester England (CHSTM).

Conor Douglas (Department of Science and Technology Studies) participated in the Town Hall on [Rare Diseases: Developing a Canadian Strategy for Rare Disease Treatments](#) on Oct. 23 in Vancouver, hosted by Paul Kennedy of CBC Ideas. It brought together a diverse panel of speakers to discuss the challenges of providing costly drugs for Canadians suffering from rare diseases and comes after six years of work by the CIHR New Emerging Team for Rare Diseases of which Douglas is a member, and the Global Reporting Centre to investigate the impact of rare diseases on Canadian families and explore options to improve access to effective therapies. Douglas continues to work in this area and collaborate with colleagues at UBC and beyond.

Jagdish Hattiangadi's (Science and Technology Studies) paper "Fractured Knowledge: 'Fake Facts'," was published as chapter 11 in the book, *The Impact of Critical Rationalism*, edited by Raphael Sassower and Nathaniel Laor (Palgrave-Macmillan, 2018).

Research Highlights

John McDermott (Biology) publishes research on finding a new role for well-known protein, β -catenin, that may help explain what goes wrong in certain cancers, vascular disease and neurological disorders. His paper, "[EMRP recruitment of \$\beta\$ -catenin to the translation pre-initiation complex represses translation](#)," by is published in *EMBO Reports* and in [YFile](#).

New [research](#) by **Christopher Caputo** (Chemistry) published in the journal of

Organometallics shows that tris(pentafluorophenyl)borane is an effective catalyst for the reductive hydroarylation of olefins with phenols.

[Research](#), published in the journal of *Physical Review D* co-authored by Eric Hessels (Physics and Astronomy), resulted in new levels of precision for helium fine-structure measurements, and a [paper](#) published in the journal of *Physical Review A* co-authored by Hessels and Marko Horbatsch (Physics and Astronomy) examines the hyperfine structure of molecules oriented in rare-gas matrices.

Chris Bergevin (Physics and Astronomy) is a co-author on the paper, "[Mammalian behavior and physiology converge to confirm sharper cochlear tuning in humans](#)," which looks at how humans can hear sounds clearer and more sharply than some small mammals. It was published in PNAS and also featured in [YFile](#).

Chris Lortie (Biology) as part of the international working group, [LTER](#), hosted by The National Center for Ecological Analysis and Synthesis, approach things a little differently when exploring the value of data collected. They do something to one set of subjects, whether plants, animals, or people, and monitor the other set designated as controls. [Their paper shows](#) that in many, if not all, natural systems, the "controls" can change too. The fact that the natural ecosystems are changing just as rapidly and just as much due to global change and climate as the treatments they might test can't be ignored.

Media

Dawn Bazely (Biology) discuss Wikipedia entries for women in her opinion piece "[Why Nobel winner Donna Strickland didn't have a Wikipedia page](#)" published in the *Washington Post*.

Paul Delaney (Physics and Astronomy) talked about everything from the Latest Planet Nine search results, the Hubble Space Telescope, the Soyuz booster failure, the demise of the Kepler Space telescope to the early formation of super clusters of galaxies and the Orionid meteor shower on Sirius XM, AM640, CTV News, Sirius XM, CHML with Scott Thompson, CTV Your Morning Show and CTV-CFTO. A total of 18 media hits.

Hélène Mialet (Science and Technology Studies) had a piece on Stephen Hawking come out in *L'Express* (France) and she gave an interview, which was published in *STS Istanbul Science Technology Society Blog*: [Articulating the](#)

Upcoming Events

November 9: The talk, "[Putting Women into the Equation: Changing Dynamics in Research](#)," at The Fields Institute **already has a full house** and is organized by York chapter of the Association for Women in Mathematics which includes **Patrick Ingram** (Mathematics and Statistics) and **Allysa Lumley**, a PhD Candidate (Mathematics and Statistics).

November 16 to 18: **Art Orellana** and **Ryan Hili** (Chemistry) are hosting the [QOMSBOC 2018 conference](#) at York U. It's expected to attract more than 200 delegates.

November 13: York University Retirees Association (YURA) Showcase. Central Square, 8:30 am to 3:00 pm. ****All of the proceeds go to support three undergraduates and graduate scholarships.****

November 21: **Jane Heffernan** (Mathematics and Statistics) is organizing and moderating [Café Mathématique – Series on Infectious Disease: "The Flu, Math, and You"](#) from 6 to 8pm at the Fields Institute. Registration is free. Panellists are Catherine Beauchemin (Ryerson), David Fisman (Toronto), Seyed Moghadas (York), Edward Thommes (Sanofi Pasteur).