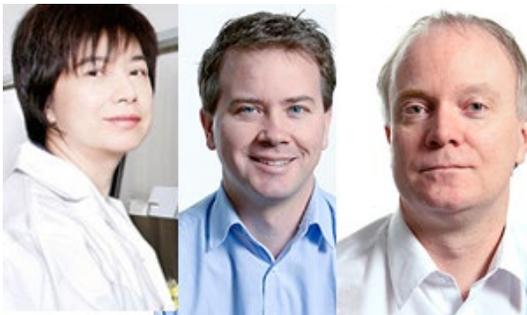


science



Dean's Round-up: July 2019

Faculty Highlights



Three biology researchers received \$2.27 million in CIHR funding.

Chun Peng (Biology), along with co-applicants **Arturo Orellana** (Chemistry), **Yi Sheng** (Biology), and **Derek Wilson** (Chemistry) received a CIHR grant of \$879,750.

Gary Sweeney received a CIHR grant of \$722,926 and **Mark Bayfield** received a CIHR grant of \$669,376. Read more about the [story here](#).



Paul Delaney (**Physics and Astronomy**) and the [Allan L. Carswell Observatory](#) held a three-day, public celebration of the 50th anniversary of the Apollo 11 mission with moon gazing, a screening of the Apollo 11 film and hourly presentations on Lunar Exploration. The event was previewed on CBC Radio's Here and Now program.

Listen here:

<https://www.cbc.ca/listen/live-radio/1-82-here-and-now-toronto/clip/15726864-this-week-marks-the-50th-anniversary-of-the-moon-landing>



Amro Zayed (Biology) is the lead on a new research grant worth close to \$10 million. Genome Canada [officially announced results](#) of the 2018 Large-Scale Applied Research Project Competition in July.



Sapna Sharma (Biology) is one of the co-PIs on a \$9.1 million Genome Canada grant to improve fisheries and aquaculture in Canada using environmental DNA led by Daniel Heath from the University of Windsor and others. The grant was part of the Genome Canada announcement earlier this month.

Congratulations

The award for “best new club” for the 2018-2019 academic year went to the **Association of Graduate Students in the Biological Sciences (AGSBS)** as voted on by the student community and leadership development group. PhD

Candidate and AGSBS Chair **Eleni Fegaras** said the group represents graduate students in the Department of Biology and hosts academic and networking events, such as the annual biology symposium.

Other News

Biophysics undergrad student **Tarnem Afify**, nominated by **Sean Tulin** (Physics & Astronomy), attended the prestigious [69th Lindau Nobel Laureate Meeting](#) in Germany, one of 580 next generation scientists from 88 countries chosen to participate in the meeting with 39 Nobel laureates.

MSc student **Lisa Azzarello** from **Cora Young**'s (Chemistry) group) is participating in the NASA/NOAA-led measurement campaign to understand the impacts of fire on climate and air quality. The project is just starting to ramp up in the western US and will continue through September. Read more here: <https://www.esrl.noaa.gov/csd/projects/firex-aq/>

Jane Heffernan (Mathematics & Statistics, Centre for Disease Modelling) co-organized the 2019 Society for Mathematical Biology Annual Meeting (SMB2019). The meeting, co-organized with **Jacques Belair** and the Centre de Recherche Mathematiques, was held at the University of Montreal, July 21 to 26. There were 650 participants, representing 29 countries. The meeting was funded by the Fields Institute, PIMS, Elsevier, SpringerNature, Maple, Mathworks, CAIMS, Sanofi-NSERC IRC, KeAi, AppliedBiomath, CAMBAM, the University of Montreal, and the Centre for Disease Modelling.

Research Highlights

Ron Pearlman (Biology) and his former PhD student **Jeff Fillingham**, now of Ryerson, have a new paper out, "[The MED31 Conserved Component of the Divergent Mediator Complex in *Tetrahymena Thermophila* Participates in Developmental Regulation](#)," in the Cell Press journal *Current Biology*. The journal also published a [short review](#) of Mediator focusing on two recent papers.

Jianhong Wu (Math & Stats) is the corresponding author on the paper, "[Assessing systemic and non-systemic transmission risk of tick-borne encephalitis virus in Hungary](#)," featured by the PLOS *Disease Forecasting & Surveillance* journal in July [here](#). The research is a collaboration between the

Laboratory for Industrial and Applied Mathematics and a research group in Hungary, and is part of the GlaxoSmithKline-funded project: “Estimating risk of tick-borne encephalitis with changes in climate, habitation and recreational activities.”

Laurence Packer (Biology) and team, including **Negar Mir Sharifi** and **Liam Graham**, published a [new paper](#) in the journal *Zootaxa* detailing 15 new species of Liphanthus Reed (Hymenoptera: Andrenidae) bees with two submarginal cells. Much more than the one species with two submarginal cells originally believed.

Sapna Sharma (Biology) co-wrote the article, “[A world without lake ice?](#),” for *The Science Breaker* with research associate **Simon Watson** (Biology) and Catherine O’Reilly on the rapid disappearance of seasonal lake ice cover. The article was based on her research, “[Widespread loss of lake ice around the Northern Hemisphere in a warming world](#),” published in *Nature Climate Change* earlier this year.

Sharma was also part of the research, “[The distribution and prediction of summer epilimnetic water temperatures in lakes of the coterminous United States and southern Canada](#),” in the journal *Geosciences*.

Conor Douglas (STS) and others had a new paper, “[Parental perspectives on retention and secondary use of neonatal dried bloodspots: a Dutch mixed methods study](#),” published in the journal *BMC Pediatrics*.

PhD student **Amanda Liczner** (Biology), now supervised by **Sheila Colla** (FES), has had a paper published online from her MSc work in biology, “[Shrubs facilitate native forb reestablishment in an invaded arid shrubland](#),” in the *Journal of Arid Environments* with **Chris Lortie** (Biology) and **Alessandro Filazzola**.

The paper, “[A Multidisciplinary Approach toward High Throughput Label-Free Cytotoxicity Monitoring of Superparamagnetic Iron Oxide Nanoparticles](#),” by **Sonia Abad Tan** (Biology), **George Zoidl** (Biology) **Ebrahim Ghafa-Zadeh** (Biology) was published by the journal *Bioengineering*. The researchers also received several invitations to speak at international conferences, a part of the editorial board, and other publications.

Media

Amro Zayed's (Biology) research on bee hygiene, with Leonard Foster of UBC, was mentioned in [Science](#) magazine.

Paul Delaney (Physics & Astronomy) was interviewed about the Apollo 11 50th anniversary in the Toronto Star, on CHML 900, CTV National News, CTV News Toronto, CBC radio, CFRB 1010, CP24, AM 640, City News, Breakfast Television, SiriusXM, Global TV and more. See CTV News video here: <https://youtu.be/ultbR7D7W5k>

Kean Birch (STS) was interviewed about sustainability and low carbon futures in OMICS: A Journal of Integrative Biology: bit.ly/2OqUgSy

Upcoming Events

Aug. 20 – The annual NSERC Summer Undergraduate Research Conference will take place at the Second Student Centre.

Aug. 26 – BeeCon, Southern Ontario's Bee Researchers Symposium, will once again be at York. More details here: <http://bees.yorku.ca/beecon-2019/>

Sept. 26 to Nov. 18 – Toronto Public Library Series, "[Feasting at the Table of Elements](#)," with **Christopher Caputo**, **Cora Young**, **Pierre Potvin**, **Hovig Kouyoumdjian** and **Derek Jackson**.

Oct. 17 to 19 – The Mathematics of Vision Workshop at The Fields Institute (Room 230) will look at the many ways "vision science" can serve as a fruitful proxy for research in neuroscience and artificial intelligence. The organizing committee includes **Christopher Bergevin** (Physics & Astronomy) and **Joel Zylberberg** (Physics & Astronomy). To register and for more information visit the website: <http://www.fields.utoronto.ca/activities/19-20/vision>

Nov. 1 to 3 – The 47th Ontario-Quebec Physical-Organic Minisymposium (POMS), one of North America's premier physical organic chemistry symposia, will be at York. For more information, visit the website yorku.ca/tbaumgar/POMS/ or contact organizers Thomas Baumgartner at tbaumgar@yorku.ca or Chris Caputo at caputo@yorku.ca.