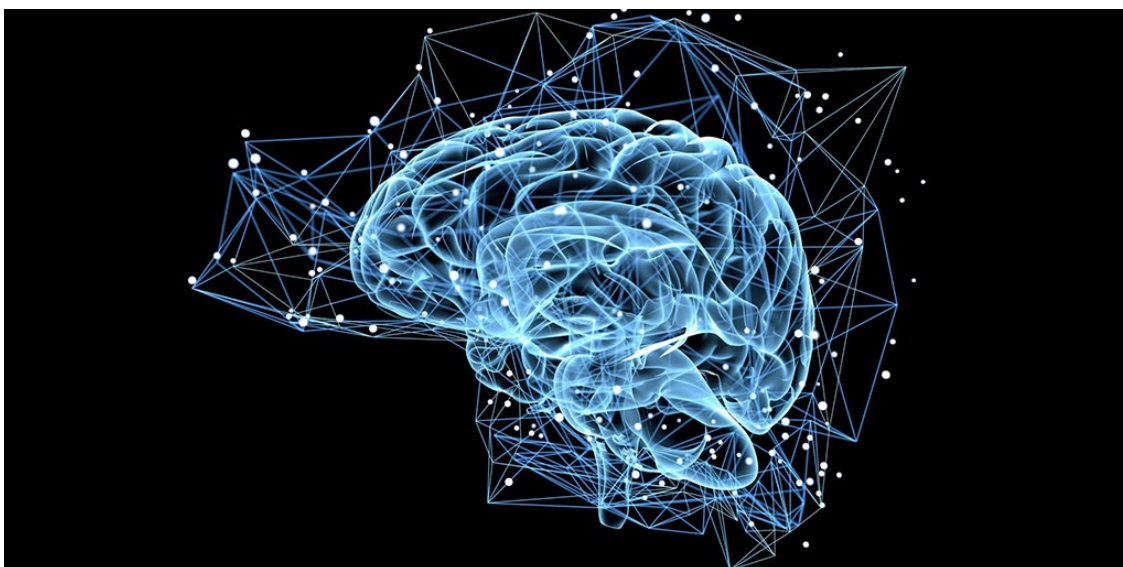


science



Dean's Round-up: February 2020



The Faculty of Science was featured in the February edition of Innovatus, a special issue of yFile that is devoted to teaching and learning innovation at York University. Stories about our new Neuroscience program, experiential education opportunities, and more were included. [Read more](#)

Congratulations

Maclean's highlighted [Biophysics](#) as a standout program in its profile of York University.

Postdoc **Ramón Alain Miranda Quintana** (supervised by René Fournier, Chemistry) received the John Charles Polanyi [Prize](#) in Chemistry.

Biology Honours student **Julieta Rybnik** placed second in the 3 Minute Thesis

competition at the Women in Science and Engineering (WISE) National Conference.

Other News

Our York Science Communicators in Residence organized a variety of training opportunities for our researchers, including a [photography workshop](#) series taught by **B.D. Colen** and a [seminar](#) about collaborating with museums presented by **Patchen Barss**.

The **Department of Physics & Astronomy** and **Future Women in Physics** at York University hosted [Death of a Universe](#), a free public event featuring Dr. Katie Mack. After the event, there was a public viewing and tour of the Allan I. Carswell Observatory.

The **Allan I Carswell Observatory** and **Elaina Hyde** (Physics & Astronomy) held the on-campus Moon Mars Occultation [event](#) with a live online public viewing.

Dawn Bazely (Biology) was interviewed for a story about the climate crisis and how it's affecting our health in yFile's [Brainstorm](#).

Ed Furman (Mathematics and Statistics) delivered a [keynote](#) presentation at the 6th annual Workshop on Insurance Mathematics.

Elaina Hyde (Physics & Astronomy) interviewed Dr. Amanda Maneypeney about careers in physics and astronomy and women in astronomy for the York Universe Radio show. She also presented [Telescopes and Data Science, a match made in the heavens](#) at the annual general meeting of RASC Mississauga.

Alex Mills (Biology) was appointed a Regional Coordinator of the next Ontario Breeding Bird Atlas project.

Laurence Packer (Biology) presented Beauty & the Bees: Their Diversity and Importance at the Arts and Letters Club. He also answered questions about bees through video conference with students from Killaloe Public School.

Jianhong Wu (Mathematics & Statistics) is heading a rapid response task

force to study the mathematical modelling of COVID-19 in collaboration with the Fields Institute and other institutes in Canada. He co-organized a [Mathematics of COVID-19](#) workshop at the Fields Institute to assemble a national group of experts to provide mathematical support for decision making and the prevention and control of this virus. **Huaiping Zhu** and **Jane Heffernan** (Mathematics & Statistics) and postdocs **Biao Tang** and **Nicola Luigi Bragazzi** (Laboratory for Industrial and Applied Mathematics) presented their work.

Research by PhD student **Cherie Brown** and her supervisor **Georg Zoidl** (Biology) about the mechanisms of neuronal communication was featured in yFile's [Brainstorm](#).

Postdoc **Alex Fillazola** (supervised by **Sapna Sharma**, Biology) organized an Extreme Climate Events [Symposium](#) at York.

Research Highlights

Chris Lortie (Biology) and his graduate students **Nargol Ghazian**, **Malory Owen**, and **Mario Zuliani** published [Thermal ecology of the federally endangered blunt-nosed leopard lizard \(*Gambelia sila*\)](#) in *Conservation Biology*.

Scott Menary (Physics & Astronomy) and the ALPHA Collaboration published [Investigation of the fine structure of antihydrogen](#) in *Nature*. Menary's former MSc student **Darij Starko** is a co-author as well; Starko is now a PhD student with Claire David (Physics & Astronomy).

Adam Muzzin (Physics & Astronomy) and his postdoc **Cemile Marsan** were co-authors on [An Extremely Massive Quiescent Galaxy at \$z = 3.493\$: Evidence of Insufficiently Rapid Quenching Mechanisms in Theoretical Models*](#) in *The Astrophysical Journal Letters*.

Laurence Packer (Biology), his former PhD students **Rafael Ferrari** and **Thomas Onuferko** and current PhD student **Spencer Monckton** published [The evolutionary history of the cellophane bee genus *Colletes* Latreille \(Hymenoptera: Colletidae\): Molecular phylogeny, biogeography and implications for a global infrageneric classification](#) in *Molecular Phylogenetics and Evolution*.

Jianhong Wu (Mathematics & Statistics), his postdocs **Biao Tang** and **Nicola**

Luigi Bragazzi and PhD student **Qian Li** (Laboratory for Industrial and Applied Mathematics) published [Estimation of the Transmission Risk of 2019-nCov and Its Implication for Public Health Interventions](#) on SSRN. This is the first of a series of papers that has been downloaded more than 10,000 times and is a major reference of the "Coronavirus severity and global impacts" analysis conducted by J.P. Morgan.

Amro Zayed (Biology) co-authored the article [Improving bee health through genomics](#) in *Nature Review Genetics*.

PhD student **Zoe Davis** and her supervisor **Robert McLaren** (Chemistry) published [Enhanced NO₂ and aerosol extinction observed in the tropospheric column behind lake-breeze fronts using MAX-DOAS](#) in *Atmospheric Environment*.

PhD student **Farwa Sajadi**, her supervisor **Jean-Paul Paluzzi** (Biology) and a number of his students published [CAPA neuropeptides and their receptor form an anti-diuretic hormone signaling system in the human disease vector, *Aedes aegypti*](#) in *Scientific Reports*.

Graduate students **Ksenia Timonina** and **Anna Kotova** and their supervisor **Georg Zoidl** (Biology) published [Role of an Aromatic–Aromatic Interaction in the Assembly and Trafficking of the Zebrafish Panx1a Membrane Channel](#) in *Biomolecules*.

Media

Paul Delaney (Physics & Astronomy) commented on fast radio bursts for *AM1010*, *AM640* and [Global News](#), constellation satellites for *AM640*, *CHML900*, and [CTV News](#), and the supermoon and [solar orbiter launch](#) with *CTV News*.

Elaina Hyde (Physics & Astronomy) commented on the Moon Mars Occultation for [CTV News](#) and [CBC Toronto News](#) (clip starts at 17:40), and the icy outer solar system object Arrokoth for [Global News](#).

The first observation of the so-called Lamb Shift in antihydrogen, published by the ALPHA Collaboration, including **Scott Menary** (Physics & Astronomy) was covered widely by media, including [Nature News and Views](#), [Wired](#), [Scientific](#)

American, *New Scientist* and more.

Adam Muzzin (Physics & Astronomy) and his postdoc **Cemile Marsan** spoke to [CBC News](#) about their discovery of a massive galaxy that stopped forming stars.

Upcoming Events

March 3 - "Our Voices, Our Experiences: Innovation Through Inclusion in the Sciences," presented by Dr. Mahadeo A. Sukhai, Head of Research and Chief Accessibility Officer at Canadian National Institute for the Blind. 10:00 am – 12:00 noon or 2:00 – 4:00 pm, Lumbers 306. RSVP [here](#).

March 5 - "The whole is greater than the sum of the parts: a research poster project provides an integrative framework for learning across courses in Biology," presented by Dr. Aarthi Ashok (University of Toronto). 11:30am – 1pm, Lumbers 306. RSVP [here](#).
