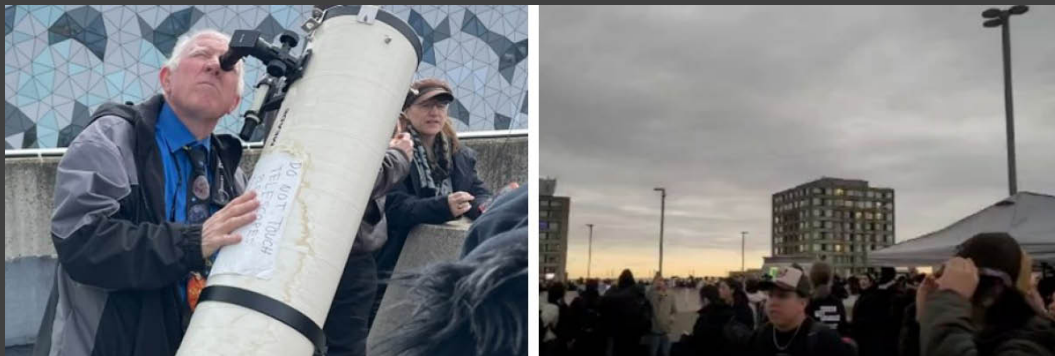


Dean's Round-up: April 2024

FACULTY HIGHLIGHTS



On April 6, our Faculty hosted "Brunch at York Science" for prospective Science students and their families. Eighty admitted students attended along with about 120 family members. This initiative offered a warm welcome and a firsthand look at the vibrant community and cutting-edge facilities at York Science. The event featured a brunch in the Life Sciences Building, tours of laboratories, and information sessions led by our Science professors.



On April 6, the **Allan I. Carswell Observatory**, directed by **Elaina Hyde** (Physics & Astronomy), hosted the "First Clear Day Solar Event" to view the sun at the top of Arboretum parking garage. This event was attended by 150 people. On the day of the solar eclipse, April 8, the Observatory invited the York community to view the eclipse atop the arboretum parking garage, where telescopes were set up; solar

glasses were also handed out near York Lanes. A total of 350 people participated in the eclipse viewing at York.

CONGRATULATIONS

Deborah Harris (Physics & Astronomy), **Ozzy Mermut** (Physics & Astronomy) and **Amro Zayed** (Biology) received a total of nearly \$500K from the [Ontario Research Fund](#) in support of their innovative research projects:

- Harris received \$125,000 for “Next generation of neutrino detector for the Deep Underground Neutrino Experiment;”
- Mermut received \$160,000 for “Biophotonics Diagnosis, Treatment and Dosimetry in Age-Related Disorders and Human Diseases;” and
- Zayed received \$212,990 for “Research apiary to study honey bee behaviour, genetics and health.”

Jane Heffernan (Mathematics & Statistics) is co-investigator on the project [Biomanufacturing Hub Network](#) (led by Molly Shoichet Gilbert Walker, U of T; and Darius Rackus, TMU), which was awarded \$18.9 million in funding from the Canada Biomedical Research Fund and Biomedical Research Infrastructure Fund. The investment aims to address the severe shortage of industry-ready highly qualified personnel in the biomanufacturing sector over the next four years.

Eric Hessels and **Wendy Taylor** (Physics & Astronomy) were named [Fellows of the Canadian Association of Physicists \(CAP\)](#). Launched in 2022, the CAP Fellowship Program recognizes its members who have made significant contributions in physics research, in physics teaching, in the advancement of technology, or in service to the CAP.

MSc student **Phoenix Sandrock** (Biology) won Best Short Talk at the Canadian Geophysical Union Student Conference.



York’s Chemistry and Biochemistry undergraduate students **Juan Valencia** (Wilson Lab), **Arman Parham** (VandenBoer Lab), **Kristina Gremi** (Hili Lab), **Samin Tavokoli** (Johnson Lab), **Hannah Le** (Baumgartner Lab) and **Manisha Kumari** (van Wijngaarden Lab) [presented their senior thesis projects](#) at the 52nd Southwestern Ontario Undergraduate Chemistry Conference. Congratulations to **Manisha Kumari**, who received first

place in the Physical, Theoretical and Computational Chemistry division, and **Hannah Le**, who earned second place in the Materials Chemistry division.

MORE NEWS

Ilijas Farah (Mathematics & Statistics) delivered colloquia titled "Corona Rigidity" at the [University of California San Diego Department of Mathematics](#) and at the [University of Zagreb \(Croatia\)](#).

Robin Metcalfe (NATS) was on an eclipse-chasing road trip to see the total solar eclipse on April 8 and was blogging from the road on the Allan I. Carswell Observatory [Solar Eclipse 2024 website](#).

Sarah Rugheimer (Physics & Astronomy), **Elaina Hyde** (Physics & Astronomy) and **Robin Metcalfe** (NATS) participated in the event "[Solar Eclipse Safety Tips & Tricks](#)," hosted by CIFAL York as part of their Rapid Response Training Events.

Sarah Rugheimer (Physics & Astronomy) presented a public lecture at Kimel Retirement Centre.

Paula Wilson (Biology) presented an invited talk at the University of Otago (Dunedin, New Zealand) entitled "Helping All Students Learn Effectively in a Large First Year Biology Class." This was the inaugural talk for a speaker series hosted by U Otago's Teaching Focused Academic Network.

Jihyeon Jessie Yang (Mathematics & Statistics) presented to a gifted grade-8 class as part of the Ask a Mathematician program organized by the Fields Institute. The title of her presentation was "Mathematics for SDGs (Sustainable Development Goals)."

RESEARCH HIGHLIGHTS

PhD student **Taylor P.L. Cosby** (Chemistry), postdoc **Avik Bhattacharjee**, undergraduate student **Samantha K. Henneberry**, PhD student **Jesse LeBlanc** and **Christopher B. Caputo** published [Unlocking Lewis acidity via the redox non-innocence of a phenothiazine-substituted borane](#) in *Chemical Communications*. The article was also designated as a Hot Article by the journal.

David C. Richardson, former postdoc **Alessandro Filazzola** (Biology), R. Iestyn Woolway, former MSc student **M. Arshad Imrit**, Damien Bouffard, Gesa A. Weyhenmeyer, John Magnuson, and **Sapna Sharma** published [Nonlinear responses in interannual variability of](#)

[lake ice to climate change](#) in *Limnology and Oceanography*.

Postdoc **Sarah K. French** (Biology), postdoc **Mateus Pepinelli**, Research Project Manager **Ida M. Conflitti**, PhD student **Aidan Jamieson**, **Amro Zayed** and co-authors published [Honey bee stressor networks are complex and dependent on crop and region](#) in *Current Biology*. [Read the press release from York University](#).

Postdoc **Chapin S. Korosec** (Mathematics & Statistics), postdoc **David W. Dick**, **Iain R. Moyles** and James Watmough published [SARS-CoV-2 booster vaccine dose significantly extends humoral immune response half-life beyond the primary series](#) in *Scientific Reports*. [Read the press release from York University](#).

PhD student **Britney Picinic** (Biology), **Jean-Paul V. Paluzzi** and **Andrew Donini** published [Protein localization of aquaporins in the adult female disease vector mosquito, *Aedes aegypti*](#) in *Frontiers in Insect Science*.

Former PhD student **Farwa Sajadi** (Biology) and **Jean-Paul V. Paluzzi** published [Molecular characterization, localization, and physiological roles of ITP and ITP-L in the mosquito, *Aedes aegypti*](#) in *Frontiers in Insect Science*.

Ryan K Schott (Biology) and co-authors published [Diversity and Evolution of Frog Visual Opsins: Spectral Tuning and Adaptation to Distinct Light Environments](#) in *Molecular Biology and Evolution*. [Read the press release from York University](#).

Sapna Sharma (Biology), postdoc **Kirill Shchapov**, postdoc **Joshua Culpepper** and John Magnuson published [Lake ice from historical records to contemporary science](#) in *Journal of Geophysical Research: Biogeosciences*.

Gesa A. Weyhenmeyer *et al.*, including **Sapna Sharma** (Biology) published [Global lake health: current status, consequences for human health, and treatment strategies](#) in *Earth's Future*.

Shanshan Qin, PhD student **Zhenni Tan** (Mathematics & Statistics) and **Yuehua Wu** published [On robust estimation of hidden semi-Markov regime-switching models](#) in *Annals of Operations Research*.

Walter Tholen (Mathematics & Statistics) published [On the metrical and quantalic versions of the *-autonomous category of sup-lattices](#) in *Theory and Applications of Categories*.

Wesley G.D.P. Silva and **Jennifer van Wijngaarden** (Chemistry) published [Disentangling the Conformational Space and Structural Preferences of Tetrahydrofurfuryl Alcohol Using Rotational Spectroscopy and Computational Chemistry](#) in *ChemPhysChem*.

Tianyi Sun, Baisuo Jin, **Yuehua Wu** (Mathematics & Statistics) and Junjun Bao published [A study of the attenuation stage of a global infectious disease](#) in *Frontiers in Public Health*.

For a full list of publications from the Faculty of Science, see our [website](#).

MEDIA

University Professor **Dawn Bazely** (Biology) was featured on TVO's [The Agenda with Steve Paikin](#) answering a question from a grade-12 student: how can we reverse the effects of climate change?

Professor Emeritus **Paul Delaney** (Physics & Astronomy) spoke to [CBC News](#) and [Smithsonian Magazine](#) about a binary star system in the constellation Corona Borealis that will soon brighten to a point where we can see it with the naked eye. He also spoke to *AM900* about space junk falling to Earth and about Voyager 1 spacecraft's communication.

Postdoc **David Dick** (Mathematics & Statistics) was interviewed by [CTV News](#) about his latest research on COVID-19 vaccines that found that immunity after a COVID-19 booster lasts more than 70 percent longer than the primary series alone. The research was also covered by the German medical journal [aerzteblatt.de](#).

Sarah Rugheimer (Physics & Astronomy) was interviewed by [Scientific American](#) for story about detecting alien life and how scientists should break the news should they find evidence of it. She was also a guest on David Cooper's podcast "This is going well, I think" to speak about asteroids, space laser transmissions and tree seedlings that made a trip around the Moon.

[Bulgaria News and Weekend](#) highlighted **Sapna Sharma's** (Biology) research on lake ice and climate change.

Jeremy Webb (NATS) spoke to [NPR](#) about why he and other scientists are interested in finding our sun's siblings.

EVENTS

June 14 and 18: Spring Convocation Ceremony. View schedule: <https://www.yorku.ca/convocation/ceremonies/>
