

Dean's Round-up: August 2024

FACULTY HIGHLIGHTS



Our Faculty hosted the annual **Summer 2024 Undergraduate Research Conference**, which was attended by more than 40 students conducting summer research in the Faculties of Science, Environmental & Urban Change, and Liberal Arts & Professional Studies. The students had received funding for their summer research positions from the Natural Sciences & Engineering Research Council of Canada Undergraduate Summer Research Awards, the Earle Nestmann Undergraduate Research Awards, or the York Science Scholars Awards.

At the conference, students presented oral or poster presentations that were judged and selected for prizes. Kudos to the following students:

- 1st place oral presentation: **Harry Parmar**, a health sciences student at Queen's University
- 2nd place oral presentation: **Vesta Tajik**, an environmental biology student at York
- 3rd place oral presentation: **Alrishia Agard**, a biomedical science student at York
- 1st place poster presentation: **Yash Shrestha**, a health sciences student at Queen's University

- 2nd place poster presentation: **Michael Petosa**, a biomedical science student in York
- 3rd place poster presentation: **Shahen Alexanian**, a computer science and mathematics student at York

[Read more](#)

CONGRATULATIONS

PhD student **Dinithi Rajaguru** (Chemistry) won third place for her poster presentation “The Effect of Fe Incorporation into a Co-based Spinel Oxide as Oxygen Evolution Reaction Catalysts (with Bibisomaia Razaee, Sreena Thekkoot, Owen Gray, Dominic H. Ryan and Sylvie Morin)” at the [International Symposium on Electrochemistry and Surface Science](#) in Guelph on August 14-17.

Undergraduate students **Zara Irfan** (Biomedical Sciences Hons), **Arpan Sandhu** (Data Science), **Lok Choy** (Mathematics and Statistics), **Tien Hoang** (Statistics), and **Gina Quan** (Statistics and Math Education) were recognized as Outstanding Students of the [Career | Fit Professional Experience Program](#). They excelled in the programs Developing a Digital Transformation and Technology Strategy within Salesforce, and Data Analytics and Machine Learning Applications in Business Optimization (IBM Mentor).

MORE NEWS

Director of the **Allan I. Carswell Observatory Elaina Hyde** (Physics & Astronomy) led an astronomy outreach event at the Downsview Park “[Movies Under the Stars](#)” program on August 20. After the show, hundreds of locals enjoyed Allan I. Carswell observatory stargazing and star-hopping. After a short presentation on “What’s Up in the Sky,” volunteers from the Observatory pointed several telescopes, binoculars, and monoculars at the Moon, Saturn, and other celestial objects.

Bethune College and the **Allan I. Carswell Observatory** hosted an orientation event for incoming students on August 28. Sixty-three students participated in a tour of both domes, including an astronomy treasure hunt, as well as dome demonstrations and a museum tour.

On August 27, the Faculty of Science **Committee on Teaching and Learning (CoTL)** hosted a talk by Imtiaz Damji (York Region District School Board) titled “Understanding Math Pre-Requisites for Science Programs at York University.” Instructors, postdocs, and graduate students were invited to attend.



The **Office of International Collaboration and Partnerships** hosted students from the Appleby Summer Camp on August 7. Founded in 1911, Appleby College is one of Canada's top independent day and boarding schools, with 795 students from grades 7-12. The event was supported by Science International Recruiting Coordinator **Mingming Li** and Global Leaders of York Science member **Ismail Azab**. A group of 11 students from China, aged 10-16, participated in a series of interactive activities designed to inspire curiosity and creativity. The participants were particularly engaged in learning about the hands-on research and the innovative science initiatives available to prospective students

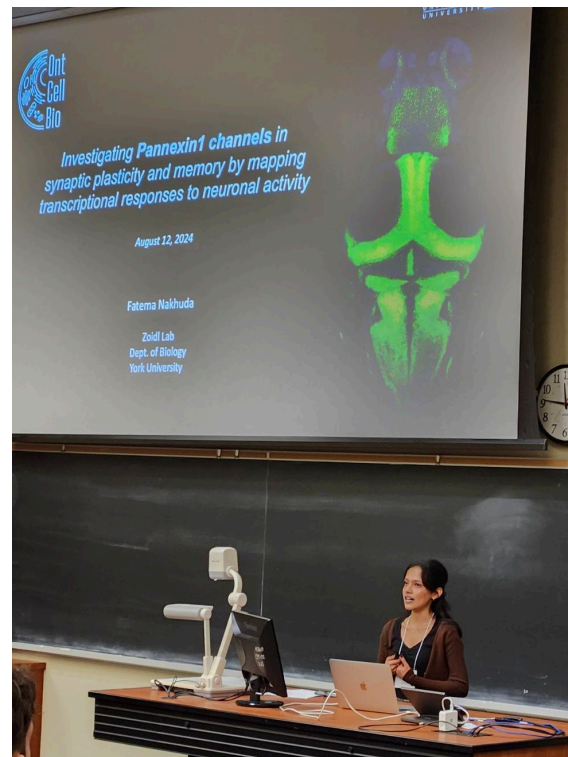
On August 26, **Global Leaders of York Science** members **Parmeet Dhillon** and **Amna Imran**, as well as Science International Recruiting Coordinator **Mingming Li** and Science Academic Advisor (International & Distance) **Miranda Ramnaraine** represented the Faculty of Science at the Fall 2024 International & Exchange Student Orientation Service Fair.

Mary-Helen Armour (NATS) presented "Towards and OER textbook for the Solar system" at the Astronomical Society of the Pacific's 136th Annual Meeting.

Ilijas Farah (Mathematics & Statistics) presented an invited talk at the Logic at Maryland Conference in the BRIN center at the University of Maryland.

Ilijas Farah and **Nantel Bergeron** (Mathematics & Statistics) are editors-in-chief of the new Canadian Mathematical Society journal, *Canadian Mathematical Communications*.

PhD student **Fatema Nakhuda** (Zoidl lab) was invited to present “Investigating Pannexin1 channels in synaptic plasticity and memory by mapping transcriptional responses to neuronal activity” at the 2024 Ontario Cell Biology Symposium at the University of Guelph.



Postdoc **Nancy Wallace** (Mathematics & Statistics) presented a poster titled “Quasipartition and planar quasipartition algebras” at international conference on Formal Power Series and Algebraic Combinatorics.

Mike Zabrocki (Mathematics & Statistics) participated in a Collaborate @ICERM event titled “A Computational Approach to Plethysm.” An interview appears in the [ICERM Summer 2024 newsletter](#).

Huaiping Zhu (Mathematics & Statistics) co-chaired the [International Conference on One Health](#) on August 11-14 in Hainan, China, where he also presented invited talk on “[Dynamical modelling for control and prevention brucellosis considering the role of village animal epidemic prevention personnel ---- a case study in Horigin Right Middle Banner of Inner Mongolia](#).” Postdoc **Pei Yuan** (Mathematics & Statistics) also presented a talk at the conference titled “[Hybrid predictive modeling of West Nile Virus transmission: enhancing public health response through weather and mosquito surveillance data](#).”

RESEARCH HIGHLIGHTS

PhD student **A. Basu**, postdoc **J. Culpepper**, former postdoc **K. Blagrove**, and **S. Sharma** (Biology) published [Phenological Shifts in Lake Ice Cover Across the Northern Hemisphere: A Glimpse Into the Past, Present, and the Future of Lake Ice Phenology](#) in *Water Resources Research*.

Carly Rozins (NATS) and co-authors published [Climate, demography, immunology, and](#)

[virology combine to drive two decades of dengue virus dynamics in Cambodia](#) in *Proceedings of the National Academy of Sciences*.

Postdoc **Kirill Shchapov**, E. Todd Howell, Tara George, and **Sapna Sharma** (Biology) published [Cyanobacteria in cold waters: A study of nearshore cyanobacteria assemblages in Lake Superior](#) in the *Journal of Great Lakes Research*.

S. Sharma, R. I. Woolway, and postdoc **J. Culpepper** (Biology) published [Lake ice](#), in *State of the Climate in 2023*, a special supplement to the *Bulletin of the American Meteorological Society*.

Laura Colmenarejo, Rosa Orellana, Franco Saliola, Anne Schilling and **Mike Zabrocki** (Mathematics & Statistics) published [The mystery of plethysm coefficients](#) in *Proceedings of Symposia in Pure Mathematics* for the Open Problems in Algebraic Combinatorics 2022 conference.

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

MEDIA

Professor Emeritus **Paul Delaney** (Physics & Astronomy) was interviewed by *Newstalk 1010*, [CBC News](#) and [CTV News](#) about the supermoon and a blue moon, and by *CTV* about NASA's delayed Starliner.

Elaina Hyde (Physics & Astronomy) spoke to *Newstalk1010* about NASA astronauts stuck at the International Space Station.

Jesse Rogerson (NATS) spoke to *AM640* about what it takes to build a rocket and get it ready for launch, and about scientists discovering liquid on Mars; to *CBC Radio* about the perseid meteor shower and NASA's delayed Starliner; and to *AM640* about scientists discovering liquid on Mars.

Sarah Rugheimer (Physics & Astronomy) spoke to *This Is Going Well, I Think with David Cooper* about phosphine on Venus and dyson spheres; to [Toronto.com](#) about Mercury in retrograde; to *CTV News*, *CP24* and *640 Toronto* about the perseid meteor shower; to *Newstalk1010* about water on Mars; to *CTV News* about NASA's delayed Starliner; and *640 Toronto* about the molten early moon.

EVENTS

September 30: [National Day for Truth and Reconciliation at York University](#), 10-11:30am

October 16: [Fall convocation](#), at 10:30am

INTERNATIONAL PARTNER INSTITUTION PROFILE

The Faculty of Science has established multiple partnerships with various international institutions. In order to better inform the York Science community of these international partner institutions, we will provide a brief profile of each of them in our Dean's Round-up.



The **Southeast Asian Ministers of Education Organization Regional Training Center (SEAMEO RETRAC)** is one of the regional centers under the SEAMEO network, dedicated to enhancing education, management, and human resource development across Southeast Asia. Established in 1996 and based in Ho Chi Minh City, Vietnam, SEAMEO RETRAC offers a variety of training programs, seminars, and workshops aimed at improving leadership, management, and pedagogical skills for educators and policymakers in the region. The center's mission is to promote regional cooperation in education and to address the educational challenges faced by member countries, fostering collaboration and development throughout Southeast Asia.

A collaboration between York Science and SEAMEO RETRAC offers a valuable opportunity to enhance science education and leadership across Southeast Asia through capacity-building programs, student and faculty exchanges, joint research initiatives, and collaborative curriculum development. By leveraging York Science's expertise in STEM education and SEAMEO RETRAC's regional network, the partnership can address key educational challenges, foster cross-cultural academic cooperation, and provide cutting-edge resources to educators and students in the region. This collaboration would not only promote educational innovation but also strengthen York Science's global presence in Southeast Asia.
