

Dean's Round-up: August 2022



The Faculty hosted its annual Summer BBQ for the first time since 2019. Thank you to all of our faculty members, graduate students and staff who joined us for this social event. Thank you as well to the Dean's Office staff for planning and running the event so smoothly.



The Faculty hosted the annual Summer 2022 Undergraduate Research Conference, which was an opportunity for recipients of NSERC



Hovig Kouyoumdjian (Chemistry) was appointed as our Associate Dean, Curriculum & Pedagogy (AD-CP). This is a new role in the Faculty

USRAs, DURAs, and YSSAs to present their summer research projects and to meet other awardees. Congratulations to **Minoosh Fathi** (1st place, poster), **Mahya Rezaeifarimani** (1st place, poster), **Selin Tahir** (3rd place, poster), **Aleeza Qayyum** (1st place, talks), **Areeba Chaudhury** (2nd place, talks), and **Claire Del Zotto** (3rd place, talks) for their awards. [Read more](#)

and will act as an integral part of our senior leadership team. The AD-CP will provide leadership and direction for matters related to the Faculty's academic programs and pedagogical innovation at both Keele and Markham campuses, including diverse ancillary matters. [Read more](#)

CONGRATULATIONS

Dasantila Golemi-Kotra (Biology) received an NSERC Research Tools and Instrumentation grant for the project "Infrastructure to Support Ultra-High Separation of Biological Samples."

Ryan Hili (Chemistry) received an operations grant from the Cancer Research Society for the project "Development of selective inhibitors of human m6A demethylases," which is in collaboration with Princess Margaret Cancer Centre.

Elaina Hyde (Physics & Astronomy) was an Astronomer in Residence at Killarney, as part of a program run by Killarney Parks and the Allan I. Carswell Observatory at York.

Students **Ashlyn Nguyen** and **Gurnoor Kaur Brar** received a [Robert J. Tiffin Student Leadership Award](#) from York University.

Trevor VandenBoer (Chemistry) received an NSERC Research Tools and Instrumentation grant (PI: VandenBoer, co-PI: **Cora J Young**) for the project "Aerosol Size and Counting Instrumentation for Urban Air Quality and Indoor Chemistry"; and an NSERC Alliance Missions grant (PI: VandenBoer, Industry Partners: Eosense Inc, Picarro Inc); for the project "Environmental chambers to study surface emissions of reactive gases impacting climate, agriculture, and air quality."

Dean **Rui Wang** (Biology) was named one of the [Top 25 Canadian Immigrants](#) of 2022.

MORE NEWS

York University and Nantong University signed an Articulation Agreement that aims to provide students from Nantong with a smooth transition to York for the completion of their degree. Nantong's second-year Applied Statistics and Biomedical Science students will be considered for admission into our Statistics and Biomedical Science degree programs.

York and the Faculty of Science hosted the [sixth Biennial Meeting of the La and La-related Protein Society](#). The conference was sponsored by the Faculty of Science, the Office of the Vice-President Research & Innovation, CIHR and the RNA Society. Experts on the study of the La and La-related proteins came to York from research institutions all over the world. **Mark Bayfield** (Biology) chaired the Organizing Committee. PhD students **Kyra Kerkhofs** and **Farnaz Mansouri-Noori** (supervised by Bayfield) received two of the three prizes awarded for trainee presentations.

Thomas Baumgartner (Chemistry) will join the Research Center for Materials Science at Nagoya University (Japan) as RCMS Visiting Professor in October-November to collaborate with Professor Shigehiro Yamaguchi on main group-element materials for biosensing applications.

Ada Chan (Mathematics & Statistics), Gabriel Coutinho (Federal University of Minas Gerais), Christino Tamon (Clarkson University), Paul M. Terwilliger (University of Wisconsin) and Luis Velazquez (University of Zaragoza) organized the workshop "Graph Theory, Algebraic Combinatorics and Mathematical Physics," hosted by the Centre de recherches mathématiques (CRM). Chan was also invited to hold a position of CRM-Simons Professor while attending this workshop.

In partnership with York's English Language Institute, **Amenda Chow** and **Iain Moyles** (Mathematics & Statistics) hosted the workshop "Patterns and Waves and Math, Oh My!" as an outreach event for the Department's [experimental math space](#). The workshop began with a presentation of the foundational mathematics involved with modelling waves, pattern phenomena examples, and demonstrations. Students then participated in several hands-on

experiments. **Jessie Yang** (Mathematics and Statistics) also assisted the students with the experiments.

Xin Gao (Mathematics & Statistics) and Zijiang Yang (LA&PS) are coediting a special issue titled “Machine Learning and Statistical Methods to Prediction and Optimal Decision-Making” for *Mathematics*.

Derek Jackson and **Kyle Belozarov** (Chemistry) presented "Making Virtual Reality a Reality in the Biochemistry Classroom" at the Biennial Conference on Chemical Education at Purdue University. Along with technician **Delwar Hossain** (Chemistry), they also hosted a group of more than 100 Black high school students from York region at the LSB undergraduate teaching laboratory as part of the "Day at York" event. Additionally, the same Chemistry team organized hands-on activities for four groups of elementary and high school students partaking in the Science Explorations Summer Camps "Pharmaceutical Chemistry" and "Catalytic Chemistry" run by our Science Engagement Programs team.

Jude Kong (Mathematics & Statistics) presented a keynote talk titled “Estimation of COVID-19 ascertainment rates across Africa and drivers of transmission dynamics worldwide in the early stage” at the Workshop on Mathematical Ecology hosted by Queen’s University.

Peer Mentor Coordinator **Meghan Kumar** and Global Leaders of York Science members **Arghavan Sammak Moghaddam**, **Chengyang Yue**, and **Misbah Parkar** represented the Faculty of Science at the International Student Resource Fair.

Professor Emeritus **Clifford C. Leznoff** (Chemistry) authored [About Science Biographies](#) in *CIC News*, published by the Chemical Institute of Canada.

Nicole Nivillac (Biology) co-authored [Workshop Report: Summer 2020 Virtual CRISPR in the Classroom](#) in *CourseSource*.

[YFile](#) profiled **Sapna Sharma's** (Biology) work as one of the inaugural Provostial Fellows at York. Her project was focused on mobilizing a community to improve access to clean freshwater.

Woldegebriel Assefa Woldegerima (Mathematics & Statistics) presented “Modelling Immune Response during within human-host and mosquito-vector

developmental stages of Plasmodium parasites” at the Workshop on Mathematical Ecology hosted by Queen’s University.

Rosa Orellana and **Mike Zabrocki** (Mathematics & Statistics) published [Howe duality of the symmetric group and a multiset partition algebra](#) in *Communications in Algebra*.

RESEARCH HIGHLIGHTS

PhD student **Dusty Cadwallader**, MSc student **Tristan R. Tiburcio**, undergraduate student **George A. Cieszynski** and **Christine M. Le** (Chemistry) published [Synthesis of Carbamoyl Fluorides Using a Difluorophosgene Surrogate Derived from Difluorocarbene and Pyridine N-Oxides](#) in *The Journal of Organic Chemistry*. This paper was also selected as an ACS Editors’ Choice article.

Kelly A. Speer, Tiago Souto Martins Teixeira, Alexis M. Brown, Susan L. Perkins, Katharina Dittmar, Melissa R. Ingala, Claudia Wultsch, Konstantinos Krampis, Carl W. Dick, Spencer C. Galen, Nancy B. Simmons and **Elizabeth L. Clare** (Biology) published [Cascading effects of habitat loss on ectoparasite-associated bacterial microbiomes](#) in *ISME Communications*.

Former postdoc **Paul Demay-Drouhard**, former postdoc **Joshua Gaffen**, **Christopher Caputo**, and **Thomas Baumgartner** (Chemistry) published [Fluorescence-based measurement of the Lewis acidities of lanthanide triflates in solution](#) in the *Canadian Journal of Chemistry*.

PhD student **Richard Le** and **Hyejin Ku** (Mathematics and Statistics) published [Reducing Systemic Risk in a Multi-layer Network using Reinforcement Learning](#) in *Physica A: Statistical Mechanics and its Applications*.

Ethan R Holder, Faisal J Alibhai, Samantha L Caudle, **John C McDermott**, and former PhD student **Stephanie W Tobin** (Biology) published [The importance of biological sex in cardiac cachexia](#) in the *American Journal of Physiology-Heart and Circulatory Physiology*.

Hélène Mialet (Science, Technology & Society) published [Bodies in Balance: Tracking Type 1 Diabetes](#) in *Body & Society*.

Postdoc **Zahra Movahedi Nia**, Ali Ahmadi, postdoc **Nicola L. Bragazzi**, **Woldegebriel Assefa Woldegerima**, Bruce Mellado, **Jianhong Wu**, James Orbinski, Ali Asgary, and **Jude Dzevela Kong** (Mathematics & Statistics) published [A Cross-Country Analysis of Macroeconomic Responses to COVID-19 Pandemic Using Twitter Sentiments](#) in *PLOS ONE*. **READ THE [PRESS RELEASE](#) FROM YORK UNIVERSITY.**

Robert Reynolds and **Allan Stauffer** (Mathematics & Statistics) published [Extended Prudnikov sum](#) in *AIMS Mathematics*.

Gesa A. Weyhenmeyer, Ulrike Obertegger, Hugo Rudebeck, Ellinor Jakobsson, Joachim Jansen, Galina Zdrovennova, Sheel Bansal, Benjamin D. Block, Cayelan C. Carey, Jonathan P. Doubek, Hilary Dugan, Oxana Erina, Irina Fedorova, Janet M. Fischer, Laura Grinberga, Hans-Peter Grossart, Külli Kangur, Lesley B. Knoll, Alo Laas, Fabio Lepori, Jacob Meier, Nikolai Palshin, Mark Peternell, Merja Pulkkanen, James A. Rusak, **Sapna Sharma** (Biology), Danielle Wain and Roman Zdrovennov published [Towards critical white ice conditions in lakes under global warming](#) in *Nature Communications*.

Tayebeh Yousefi, PhD student **Ksenia Timonina**, **Georg Zoidl** (Biology), and Hossein Kassiri published [An Implantable Optogenetic Neuro-Stimulator SoC with Extended Optical Pulse-Width Enabled by Supply-Variation-Immune Cycled Light-Toggling Stimulation](#) in *IEEE Transactions on Biomedical Circuits and Systems*.

Wuyi Ye, Mingge Li and **Yuehua Wu** (Mathematics & Statistics) published [A novel estimation of time-varying quantile correlation for financial contagion detection](#) in the *North American Journal of Economics and Finance*.

S. N. Hosseini, A. R. Shir Ali Nasab, **W. Tholen** (Mathematics & Statistics) & L. Yeganeh published [Quotients of Span Categories that are Allegories and the Representation of Regular Categories](#) in *Applied Categorical Structures*.

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

MEDIA

The **Allan I. Carswell Observatory** and its new domes were featured in

SkyNews magazine.

Professor Emeritus **Paul Delaney** (Physics & Astronomy) spoke with numerous TV and radio programs, including *Global TV*, *CTV News*, *CHML900*, *AM1010*, and more about geomagnetic storms, Artemis I mission, Perseid meteor shower, James Webb Space Telescope Jupiter image and other topics.

Postdoc **Shira Joudan** (Chemistry) spoke to a number of media outlets, including [Scientific American](#) and [The New York Times](#), about a new technique that destroys persistent per- and polyfluoroalkyl substances.

PhD student **Jenna LeBlanc** (Biology) and her research on fescue grasses were featured in the [Cochrane Eagle](#).

Adam Muzzin (Physics & Astronomy) spoke to [Postmedia](#)'s Anthony Furey about the James Webb Space Telescope and future space exploration.

Jesse Rogerson (Science, Technology & Society) spoke with *CBC Radio* and *Newstalk1010* about the Perseid meteor shower, and with *Newstalk1010*, *AM900* and *AM640* about the Artemis 1 mission.

Sarah Rugheimer (Physics & Astronomy) spoke to the [Toronto Star](#) about the Perseid meteor shower and with *Newstalk1010* about the possible signs of life on Mars.

EVENTS

Sept 13: [Practical Strategies for Grading: Focus on Feedback for Science](#)

Sept 19: [Graduate Students Fireside Chats on Teaching](#)

Sept 20: [FSc. Science Education Book Club](#)

Sept 21: [FSc. Bi-monthly Informal Meeting on Teaching & Learning](#)

Oct 11: [Alternative Assessments for Science Instructors](#)

Oct 17: [Graduate Students Fireside Chats on Teaching](#)

Oct 18: [FSc. Science Education Book Club](#)

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.



Indian Institute of Technology Madras

The Indian Institute of Technology (IIT) Madras is known both nationally and internationally for excellence in technical education, basic and applied research, innovation, entrepreneurship and industrial consultancy.

IIT Madras is a residential institute with nearly 550 faculty, 8,000 students and 1,250 administrative and supporting staff. The campus is located in the city of Chennai, previously known as Madras. The Institute has sixteen academic departments and a few advanced research centres in various disciplines of engineering and pure sciences, with nearly 100 laboratories.

