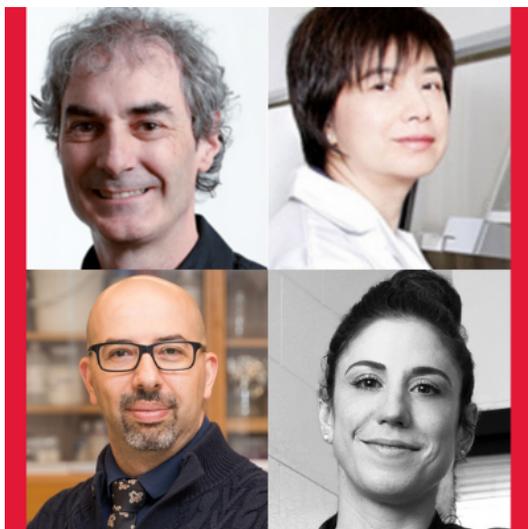


Dean's Round-up: July 2021

FACULTY HIGHLIGHTS



Four Science faculty [have been recognized](#) with York Research Chairs for 2021-2026: **Nantel Bergeron** (Mathematics & Statistics); **Chun Peng** (Biology), **Amro Zayed** (Biology) (Tier 1, renewals), and **Ozzy Mermut** (Physics & Astronomy, Tier 2).



Professor Muhammad Yousaf was appointed as interim Chair of the Department of Chemistry, effective July 1, 2021, for a term of one year. Yousaf has been a professor in the Department of Chemistry since 2011, and previously served as Chair from 2012-2015.

CONGRATULATIONS

Faculty of Science Postdoctoral Fellows **Mohammad Naderi** (Biology) and **Vasily Panferov** (Chemistry) have been named among this year's recipients of the prestigious [Banting Postdoctoral Fellowship](#). Awarded by the Government of Canada, the Banting Postdoctoral Fellowship is valued at \$70,000 per year for two years, supporting postdoctoral researchers who will positively contribute to Canada's social, economic, and research-based growth. Following a highly competitive selection process, this esteemed award allows researchers the privilege of conducting ambitious work, while focusing entirely on advancing their respective fields.

The Faculty of Science has announced its **2021 Gold and Silver Medal winners**. The Gold medal was awarded to **Greta Raffoul** (Biology) and the Silver went to **Afify Tarnem** (Physics & Astronomy). The Gold Medal is awarded to a graduating student in recognition of the highest degree of scholarship and an outstanding undergraduate career. The Silver Medal is awarded to the graduating student from the Faculty of Science who has combined the highest degree of academic achievement with the greatest contribution to undergraduate student life at York.

Sapna Sharma (Biology) received a grant from the Ontario Ministry of Environment, Conservation, and Parks for \$138,600 to develop nearshore water quality indices for the Great Lakes.

The BIOSCAN-Canada project to inventory Canada's organisms and probe their interactions will receive funding of nearly \$7.2 million, including \$3 million from Genome Canada. **Elizabeth Clare** (Biology) is a co-investigator on [the project](#), led by University of Guelph.

Jude Kong (Mathematics & Statistics) mentored three teams in the [STEMFellowship National Undergraduate Big Data Challenge 2021](#), who came first, second, and third in the overall rankings. The Challenge featured more than 90 teams consisting of more than 300 students from across Canada. It invites undergraduate students from across the country to strengthen their problem-solving and critical thinking skills while gaining familiarity with the fundamentals of data science.

OTHER NEWS

A memorial session was held at the International Bayesian Society Annual Meeting on July 1 in memoriam of [Professor Helene Massam](#). Massam was a long-serving professor in the Department of Mathematics & Statistics and a leading researcher in theoretical statistics. The session was organized by **Xin Gao** (Mathematics & Statistics) and Christian Genest.

Members of the Chemistry Department (**Robert McLaren, Cora Young** and **Trevor VanderBoer**) have signed a formal Collaborative Research Agreement with the Air Quality Process Research Section of Environment and Climate Change Canada. The agreement allows for the transfer of ~\$1.5M worth of research equipment to York University labs for use in several air quality studies in southern Ontario over the next two years.

Jude Kong (Mathematics & Statistics) and Yohana Solomon (PhD student) partnered with the Lifelong Leadership Institute to organize a summer [Mathematics program for Black students](#) in grades 10-12 across Ontario from July 19-August 13. The program aims to help Black high school students improve their maths performance, prospects for admission into STEM programs, and confidence in their level of preparation for post-secondary studies. It also aims to mitigate pandemic-induced isolation and academic disruption, and the erosion of knowledge/skill that often results from the summer break.

The Allan I. Carswell Observatory hosted a [special talk](#) by Dr. Sarah Rugheimer, future Allan. I. Carswell Chair for the Public Understanding of Astronomy. They also [hosted an AMA](#) (“Ask Me Anything”) by new observatory director **Elaina Hyde** (Physics & Astronomy).

RESEARCH HIGHLIGHTS

Alison Galvani, **Seyed M. Moghadas** (Mathematics & Statistics), and Eric C. Schneider published “[Deaths and Hospitalizations Averted by Rapid U.S. Vaccination Rollout](#).” The study was requested by the White House and published in the Issue Briefs of the Commonwealth Fund. It received significant media coverage, including a piece on the [CNN website](#).

Jianhong Wu (Department of Mathematics & Statistics), **Francesca Scarabel** (Postdoctoral researcher), **Zachary McCarthy** (PhD student), Yanyu Xiao, and Nicholas H. Ogden published “[A window of opportunity for intensifying testing and tracing efforts to prevent new COVID-19 outbreaks due to more transmissible variants](#),” in *Canada Communicable Disease Report*. The University issued a [media release](#) about this research.

Nadejda Tsvetkov, Victoria J. MacPhail, Sheila R. Colla, and **Amro Zayed** (Biology), published “[Conservation genomics reveals pesticide and pathogen exposure in the declining bumble bee *Bombus terricola*](#),” in *Molecular Ecology*. The University issued a [media release](#) about this research.

Lucas C. Torres (Master’s student), Roman Dobrovetsky and **Christopher B. Caputo** (Chemistry) published “[Allenic phosphonium borate zwitterions via a phosphonium allenylidene intermediate](#)” in *Chemical Communications*.

Rosa Orellana and **Mike Zabrocki** (Mathematics & Statistics) published “Symmetric group characters as symmetric functions” in *Advances in Mathematics*.

Imrit, M.A. (research assistant) and **Sapna Sharma** (Biology) published “Climate change is contributing to faster rates of lake ice loss in lakes around the Northern Hemisphere” in *Journal of Geophysical Research – Biogeosciences*.

Conor Douglas (STS), Panagiotoglou, D., Dragojlovic, N., and Lynd, L. published “Methodology for constructing scenarios for health policy research: The case of coverage decision-making for drugs for rare diseases in Canada” in *Technological Forecasting and Social Change*.

Walter Tholen (Mathematics & Statistics), G. Dimov and E. Ivanova-Dimova published “Categorical Extension of Dualities: From Stone to de Vries and Beyond, I” in *Applied Categorical Structures*.

Guanfu Liu, **Yuejiao Fu** (Mathematics & Statistics), Wenchen Liu, and Rongji Mu published “[Testing homogeneity in contaminated mixture models](#)” in *The Canadian Journal of Statistics*.

MEDIA

Elizabeth Clare (Biology) was interviewed by [New Scientist](#) about her groundbreaking research on extracting mammal DNA from the air and its implications.

Sapna Sharma (Biology) co-authored an article in [The Conversation](#) about the wide-scale damage to ecosystems caused by extreme heat waves.

Dasantila Golemi-Kotra (Biology) was interviewed by CBC about [outdoor mask-wearing](#) and [mixed-dose travel restrictions](#).

Ilijas Farah (Mathematics & Statistics) was quoted in the *Quanta Magazine* article “[How Many Numbers Exist? Infinity Proof Moves Math Closer to an Answer.](#)”

Elaina Hyde (Physics & Astronomy) was interviewed on Fresh Air Radio discussing the pros and cons of space travel.

Paul Delaney (Physics & Astronomy) commented widely in the media on topics related to space and astronomy. His interviews this month included: CTV News Channel: Ending my Directorship at YorkU; AM640 Jeff McCarthy: Black hole tsunami; AM1010 Mark Towhey: Mars methane and the 2031 large comet; Global TV: Space Tourism; AM640 Kelly Cutrara: Branson's flight to space; CJAD 800 Aaron and Natasha: Comet Bernardinelli-Bernstein in 2031; CP24: Branson's flight to space; CTV News Channel: Branson's flight to space; CTV

News Channel: Branson's flight to space - play-by-play commentary; Global BT: Virgin Galactic first flight; AM1010 Mark Towhey: Richard Branson first flight Virgin Galactic; AM640 Kelly Cutrara: Branson's flight to space; AM900 Scott Thompson: Branson's flight to space; Talk Radio 1010 Jim Richards: Tidal flooding and HST back online; AM640 Jeff McCarthy: Bezo's flight; CTV News Channel: Bezo's flight to space; Global640 Arlene Bynom: Bezo's flight to space; AM900 Scott Thompson: Bezo's flight to space; CP24: Bezo's flight to space; AM900 Scott Thompson: Bezo's flight to space; AM640: Back hole observation and Boeing Starliner launch

Jesse Rogerson (STS) appeared on CP24 discussing Jeff Bezos' [Blue Origin space flight](#).

