

## Dean's Round-up: March 2022


**2022**

Faculty of Science  
**HONOURS & AWARDS  
CEREMONY**

**MARCH 31, 2022 | 3 pm ET**  
**Via Zoom Webinar**

**SPECIAL GUEST**  
**Mark Lievonen, C.M.**

Former President of Sanofi Pasteur Limited and Co-Chair of the Government of Canada's COVID-19 Vaccine Task Force.



We hosted our annual [Honours & Awards Ceremony](#), virtually over Zoom, to celebrate the students, staff and faculty members who had received awards and scholarships (Sept 1, 2020-Aug 31, 2021) for their teaching and research excellence, academic achievements, and extracurricular involvement. More than 110 people joined the event, which featured a keynote by **Mark Lievonen**, former president of Sanofi Pasteur and current co-chair of the Government of Canada's COVID-19 Vaccine Task Force.

The **Allan I. Carswell Observatory** and Killarney Provincial Park launched an [Astronomer in Residence](#) program, which is currently accepting applications for the summer 2022 season.

**Pedagogy and Curriculum Help is Available!** Do you have questions about dynamic pedagogy, curriculum ideas, adding flexibility to labs, or adding flexibility to courses? Educational Development Specialist **Ashley Nahornick** is here to answer your questions. She can also review your e-class, provide ideas, and answer your questions. Reach out at [ashleynk@yorku.ca](mailto:ashleynk@yorku.ca)

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## CONGRATULATIONS

At the Faculty's Honours & Awards Ceremony, the following award winners were announced:

- **Ashley Nahornick**, Educational Development Specialist, received the Dean's Special Recognition Award for her outstanding support of teaching and curricular excellence across the Faculty.
- **Sapna Sharma** (Biology) received the Established Researcher Award.
- **Raymond Kwong** (Biology) received the Early Career Researcher Award.
- **Conor Douglas** (Science & Technology Studies) received the Excellence in Graduate Mentorship Award.
- **Dawn Bazely** (Biology) received the Excellence in Teaching Award in the Senior Tenure-Stream Faculty category.
- **Andrew Skelton** (Mathematics & Statistics) received the Excellence in Teaching Award in the Junior Tenure-Stream Faculty category.
- **Tanya Da Sylva** (Biology) received the Excellence in Teaching Award in the Non-Tenure Faculty category.
- PhD students **Jenna LeBlanc** (Biology) and **Laura Keane** (Mathematics & Statistics) received the Richard Jarrell Excellence in Teaching at the Graduate Level Award.

The **Africa-Canada Artificial Intelligence and Data Innovation Consortium** (ACADIC), directed by **Jude Kong** (Mathematics & Statistics) was highlighted in Research Infosource's *Canada's Innovation Leaders 2021* [report](#).

**Jane Heffernan** (Mathematics & Statistics) received funding from CIHR (PI JLittle, University of Ottawa) to model COVID-19 vaccine efficacy considering variants of concern. She is also a collaborator on a CIHR grant (PI FAKhan, McGill University) to model COVID-19 infection in Indigenous communities.

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## MORE NEWS

**Daniela Monaldi** (Science & Technology Studies) published the chapter "The evolving understanding of quantum statistics" in the [Oxford Handbook of the History of Quantum Interpretations](#), edited by O. Freire *et al.*

**Woldegebriel Assefa Woldegerima** (Mathematics & Statistics) presented

“Mathematics in Nature” as part of the Ask a Mathematician program organized by the Fields Academy for Ontario Schools. He also spoke about the various programs and research labs in the Department of Mathematics & Statistics.

The **One Health Modelling Network for Emerging Infections/Réseau une seule santé sur la modélisation des infections (OMNI/RÉUNIS)**, directed by **Huaiping Zhu** (Mathematics & Statistics) launched a new [Distinguished Lecture Series](#) on Modelling of Infectious Diseases.

**Sapna Sharma's** (Biology) Provostial Fellowship project, Improving access to clean water, was profiled by [yFile](#). She also co-hosted [World Water Day 2022: A Solutions-Driven Workshop on Climate Impacts on Freshwater](#).

**Cora Young** (Chemistry) presented [Do clear skies mean clean air? Pandemic lockdowns and their influence on air quality](#) as part of York University's Scholars Hub.

**Jude Kong** and **Jianhong Wu** (Mathematics & Statistics) co-authored [Harnessing the Power of Data: Artificial Intelligence-Based Pandemic Support](#) in the UNESCO toolkit “Mathematics for Action: Supporting Science-Based Decision-Making.”

**Jude Kong** (Mathematics & Statistics) was a keynote speaker and panelist at the Inspiring Diversity in STEM Conference at Western University; the conference was attended by Prime Minister Justin Trudeau. He also presented a keynote on the principles of mathematical modelling to more than 1,000 middle and high-school students across Canada, and at the University of Toronto's St. George Branch STEM Fellowship Workshop. Together with students **Rakan Omar** and **Kobe Shamar Cargill**, he co-organized a webinar on Careers in Mathematical Modelling at York University; he also moderated the panel conversation at the event. Additionally, he presented a talk on rate-induced transitions in phytoplankton systems at BIRS on Systems and the talk “Estimating and Predicting Greenhouse gas emissions from tailing ponds!” at the University of Alberta Sustainability Council Lecture Series.

[YFile](#) profiled the micro-community **Jude Kong** (Mathematics & Statistics) created to help support Black students in the Department of Mathematics & Statistics.

**Hugo Chen** (Director, International Relations & Partnerships) and **Mingming Li**

(Science International Recruiting Coordinator) met with the Trade Commissioner Education, South Korea, Embassy of Canada, where they shared recent developments of York Science collaborations with universities in South Korea. Hugo Chen also represented York Science to welcome the delegation from the Commission on Higher Education (CHED) in the Philippines visiting York University. They discussed potential collaborations with Dr. J. Prospero De Vera III, Chairman of CHED, as well as 18 university presidents and senior officials.

York Science collaborated with York International and Sup'Biotech (Paris, France) to host an information session for the latter institution's summer programs in biotechnology, specifically in food science and stem cells. Sup'Biotech will offer one full scholarship to York Science students.

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## RESEARCH HIGHLIGHTS

PhD student **Jennifer Porat** (Biology), Moaine El Baidouri, **Jorg Grigull** (Mathematics & Statistics), Jean-Marc Deragon, and **Mark A. Bayfield** (Biology) published [The methyl phosphate capping enzyme Bmc1/Bin3 is a stable component of the fission yeast telomerase holoenzyme](#) in *Nature Communications*.

Research Project Manager **Ida M. Conflitti**, former MSc student **Mohammad Arshad Imrit**, former MSc student **Bandeale Morrison**, **Sapna Sharma** (Biology), Sheila R. Colla, and **Amro Zayed** (Biology) published [Bees in the six: Determinants of bumblebee habitat quality in urban landscapes](#) in *Ecology and Evolution*. **Read the [press release](#) from York University.**

PhD student **Kimberley Chung**, PhD student **Yasaman Mahdavi-Amiri**, undergraduate student **Christopher Korfmann**, and **Ryan Hili** (Chemistry) published [PhOxi-Seq: Single-Nucleotide Resolution Sequencing of N2-Methylation at Guanosine in RNA by Photoredox Catalysis](#) in the *Journal of the American Chemical Society*.

Wiesław Kubiś and **Paul Szeptycki** (Mathematics & Statistics) published [On a topological Ramsey theorem](#) in the *Canadian Mathematical Bulletin*.

PhD student **Mingfu Wang** and **Hyejin Ku** (Mathematics & Statistics) published [Risk-sensitive Policies for Portfolio Management](#) in *Expert Systems*

*with Applications.*

Undergraduate student **Kerrice Bailey**, PhD student **Aman Basu**, and **Sapna Sharma** (Biology) published [The environmental impacts of fast fashion on water quality: A systematic review](#) in *Water*.

Former PhD student **Bin Sun** and **Yuehua Wu** (Mathematics & Statistics) published [Estimation of the Covariance Matrix in Hierarchical Bayesian Spatio-Temporal Modeling via Dimension Expansion](#) in *Entropy*.

**Alexey Kuznetsov** (Mathematics & Statistics) published [Computing the Barnes G-function and the gamma function in the entire complex plane](#) in the *Journal of Computational and Applied Mathematics*.

PhD student **Pei Yuan**, postdoc **Elena Aruffo**, PhD student **Yi Tan**, PhD student **Liu Yang**, Nicholas H. Ogden, Aamir Fazil, and **Huaiping Zhu** (Mathematics & Statistics) published [Projections of the transmission of the Omicron variant for Toronto, Ontario, and Canada using surveillance data following recent changes in testing policies](#) in *Infectious Disease Modelling*.  
**Read the [press release](#) from York University.**

Postdoc **Jummy David**, postdoc **Nicola Luigi Bragazzi**, postdoc **Francesca Scarabel**, PhD student **Zachary McCarthy** and **Jianhong Wu** (Mathematics & Statistics) published [Non-pharmaceutical intervention levels to reduce the COVID-19 attack ratio among children](#) in *Royal Society Open Science*.

Laurent Coudeville, Amine Amiche, Ashrafur Rahman, Julien Arino, postdoc **Biao Tang**, Ombeline Jollivet, Alp Dogu, Edward Thommes and **Jianhong Wu** (Mathematics & Statistics) published [Disease transmission and mass gatherings: a case study on meningococcal infection during Hajj](#) in *BMC Infectious Diseases*.

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

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## **MEDIA**

**Dasantila Golemi-Kotra** (Biology) spoke to [CBC Radio](#) syndicates about the Omicron BA.2 variant.

**Jude Kong** (Mathematics & Statistics) was interviewed for a segment on [Fairchild TV](#) about the Africa-Canada AI & Data Innovation Consortium (ACADIC) and its work in providing locally relevant information on COVID-19 for the public and policymakers in nine African countries. He also spoke to [CTV News](#) about using artificial intelligence to address inequalities and systematic vulnerabilities in our communities.

**Patricia Lakin-Thomas** (Biology) was interviewed about Daylight Saving Time and the negative impacts of year-round DST by several media outlets, including Toronto Star's [This Matters](#) podcast, *CTV News*, *CBC Radio*, and *CityNews 570*, among others.

**Alex Mills** (Biology) appeared as an expert consultant in episode five of CBC Gem's [Frick, I Love Nature](#).

**Sapna Sharma** (Biology) co-wrote an editorial in the *Toronto Star* titled [Toward a more equitable water future for Canada](#). She was also interviewed by [AP News](#) about ice loss in lakes in the northern hemisphere; the story was republished by other outlets, including the [LA Times](#), [Toronto Star](#), and [CTV News](#). She also spoke to [Bridge Michigan](#) for an article about the impacts of climate change in the Great Lakes region.

Research by **Amro Zayed** (Biology) and his team on bumblebees in Toronto received coverage by [The Star](#), which was republished on [Toronto.com](#).

[University Affairs](#) profiled **Elizabeth Clare** (Biology) and her research on vacuuming DNA from air.

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## EVENTS

**Apr 11:** *Return to Campus Debrief: Reflections on the Transition to In-Person Teaching and Learning*, 10am-2pm. [Register](#).

**Apr 28:** Dr. Ron Lancaster (OISE, University of Toronto) leads a hands-on session about inclusive teaching through completing a mathematics education laboratory, 10:30am-12pm on [Zoom](#).

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## 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.



### Hohai University

[Hohai University](#) is a public research university in Nanjing, China, with a focus on water and engineering. It has 21 colleges and departments in total, covering engineering, sciences, economics, management, arts and law. It offers 71 undergraduate programs, 205 master programs, and 66 PhD programs, and it has 16 post-doctoral stations. The school's Hydraulic Engineering, Civil Engineering and Environmental Science & Engineering programs are ranked among the top in China. The institution ranks in the top 1% in the Essential Science Indicators (ESI) database in the disciplines of Engineering, Environment/Ecology, Computer Science, Material Science, Earth Science, Agricultural Science, Chemistry and General Social Science.

The University has more than 3,500 faculty members, serving approximately 55,000 students, including about 20,000 undergraduate students, 11,000 master students, 3,500 PhD students, and 1,100 international students.

