

Monthly Report to the Provost – Faculty of Science

The Faculty of Science (FoS) has the following to report for the month of **March 2022**:

Engaging Learners

Dr. Stefania Pizzirani, Assistant Professor from the School of Land Use and Environmental Change (SLUEC), along with other members from across campus organized a series of events for *March for Sustainability*. **Dr. Alan Reid** and **Dr. Sandra Gillespie** both from Biology provided an informative session on Pollinator Gardens and Installation on March 2. They discussed plant biodiversity and what our native pollinators require. A Clothing Exchange and Repair Fair was held on March 9, Sustainability Career Panel on March 23 and the final session, Professional Designation Information Session was held on March 30. These weekly sessions made the Abbotsford News <https://www.abbynews.com/community/weekly-sessions-on-sustainability-offered-by-ufv-in-chilliwack-abbotsford-and-online/>

Dr. Ben Vanderlei, Associate Professor and Math and Stats Department Head had applied for the internal Open Education Micro Grants Program and was recently approved for funding. The grant will allow him to hire a student to help expand the Open Education Resource that he created while on sabbatical last year.

Dr. Kseniya Garaschuk, Assistant Professor from Mathematics and Statistics is co-organizing a session called Authentic Applications at the 2022 Canadian Math Society Summer meeting (June 3 -6, 2022, Memorial University, NL). The session was approved and appears on the website here: <https://summer22.cms.math.ca/index.php/education-sessions/>

Dr. Carin Bondar, Biology Adjunct Professor and Sessional Instructor was part of a Carbon documentary hosted by Neil deGrasse Tyson. 'Carbon: An Unauthorized Biography' premiered on CBC docs and the Nature of things earlier this month. Catch Carin around the 12:00 minute mark. **Watch the movie on CBC Gem:** <https://www.cbc.ca/documentaries/the-nature-of-things/carbon-is-not-our-enemy-we-need-to-understand-it-to-protect-our-future-1.6371353>. She also filmed an episode in a series called 'Frick, I love nature' which premiered on CBC Gem on March 25. She appears at 4:55 in the video <https://gem.cbc.ca/media/frick-i-love-nature/s01e05>

Several Science Undergraduate students are scheduled to participate in UFV's Research Day on March 31, including Biology students **Katriana Van Woudenberg**, **Connor Frey**, **Maor Arad**, **Daylan Pritchard**, **Ryan Goldbach**, **Heather Kelly**, and Math & Stats Post-Bac student **Noorinder Kaur**, in the Student Micro-Lectures event. See talk titles under Presentations/Publications below. Several other students as well as most of the above-mentioned students will also participate in the Poster session.

Transforming Lives

Dr. Olav Lian and **Carolyn Atkins** from the School of Land Use and Environmental Change (SLUEC) travelled with their GEOG 402 class to Vancouver Island February 18-20. The students spent time listening to presentations by local geoscientists and visiting key exposures in the field where sediments and organic plant remains have been used together, over the last few decades, to unravel long-term environmental change to the physical environment, spanning the last approximate 125,000 years. Their next field trip was earlier this month where they took their GEOG 202: Geomorphology class on a two-day field trip where they visited the southern interior. <https://blogs.ufv.ca/science/2022/03/25/class-field-trips-back-on-course/>

Dr. Talha Qadri, SLUEC Instructor, arranged a field/study trip to the Great Blue Heron Nature Reserve for his ENV 200: Bioregional Communities class this month. <https://blogs.ufv.ca/science/2022/03/25/class-field-trips-back-on-course/>

Building Community

Dr. Vanessa Radzimski, Assistant Professor from the Math and Stats Department is now the editor of “From the lecture notes of ...” column in Crux Math. <https://cms.math.ca/publications/crux/> In this new feature of Crux, authors share some of their favourite problems from first and second year undergraduate courses. These problems are a bit non-standard, elegant, or unexpected. The goal is to create a community of teaching and supplement it with sharable resources.

After **Dr. Stan Manu**, Associate Professor from Math and Stats, established connections with UBC, **Dr. Vanessa Radzimski** took the lead on a virtual community beading project with Anishinaabe artist, Nico Williams. https://padlet.com/UBC_ETS/awyibur66qx5ji70 The goal was to bring together community and engage in beadwork and mathwork over 5 virtual sessions. Participants, who also included **Dr. Stan Manu** and **Dr. Kseniya Garaschuk**, from UFV Math and Stats, beaded sections to contribute to the community hyperblanket. Once each of the pieces have been collected, they will be put together by the artist. The finished community blanket will then travel to UBC and UFV. <https://blogs.ufv.ca/science/2022/03/24/beadwork-mathwork-community-beading-project-with-nico-williams-anishinaabe-artist/>

Dr. Cherie Enns, Associate Professor from the School of Land Use and Environmental Change was invited to join the Technical Board of Directors of the Pan African Child Led Organization (PACLO) for a period of three years. PACLO is supported by Save the Children International and was established in 2021 by children to promote safe, sustainable, and meaningful children’s participation in decision making at local, national, regional, and global levels.

Sample List of Presentations/Publications (UFV student names underlined> by FoS personnel:

Arad, M. and **Ghafourifar, G.** 2022. Optimization of 4-TEBS crosslinked pepsin to fabricate an in-situ immobilized microreactor for proteomic studies. 2022 UFV Research Day microlecture and poster (March 31).

Frey, C. and **Ghafourifar, G.** 2022. In-situ fabrication of pepsin immobilized enzyme microreactor for bottom-up proteomics. 2022 UFV Research Day microlecture and poster (March 31).

Goldbach, R., **Lee, J.B.**, Bols, N.C., **Lee, L.E.J.** 2022. Preparing primary cell cultures from the olfactory organs of Rainbow Trout (*Oncorhynchus mykiss*). 2022 UFV Research Day microlecture and poster (March 31).

Haque, E., **Qadri, S.M.T.**, Hossain Bhuiyan, A., Navid, M., Nabawy, B.S., Hakimi, M., Abd-El-Aal, A.K. 2022. Integrated wireline log and seismic attribute analysis for the reservoir evaluation: A case study of the Mount Messenger Formation in Kaimiro Field, Taranaki Basin, New Zealand. *Journal of Natural Gas Science and Engineering*, 99: 104452. <https://doi.org/10.1016/j.jngse.2022.104452>

Kaur, N. 2022. Effect of vaccination drive on COVID-19 cases in Canada. 2022 UFV Research Day microlecture and poster (March 31).

Kelly, H., Chen, S., Tam, Y.Y.C., Varankovich, N., Gill, S., **Lee, L.E.J.** and **Lee, J.B.** 2022. The investigation of LNP-siRNA formulations for Rainbow Trout fish cell lines through the examination of cellular uptake and reporter gene knockdown in vitro. 2022 UFV Research Day microlecture and poster (March 31).

Pritchard, D., **Alfred, A.** and **Lee, L.E.J.** 2022. Applying image analysis tools for rapid processing of in vitro Rainbow Trout cell migration data. 2022 UFV Research Day microlecture and poster (March 31).

Van Woudenberg, K., Chen, S., Tam, Y.C., **Lee, L.E.J.**, and **Lee, J.B.** 2022. Investigation of endocytic mechanisms of lipid nanoparticles encapsulating siRNA (LNP-siRNA) into Rainbow Trout fish cells in vitro. 2022 UFV Research Day microlecture and poster (March 31).