

Monthly Report to the Provost – Faculty of Science

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

Engaging Learners

Dr. Cherie Enns, Associate Professor from the School of Land Use and Environmental Change continues to move forward with the proposed bachelor's degree in Regional and Community Planning at UFV. The program now has UBC's support and is being submitted to the province.

Dr. Lenore Newman, SLUEC Professor and Canada Research Chair, Food Security and Environment hosted a workshop earlier this month at Loon Lake in Maple Ridge on the Social Implications of Cellular Agriculture. They hosted industry representatives, Indigenous groups, academics, farmers, and non-profit organizations for a discussion on the future of protein production.

The FoS hosted the in-person Fraser Valley Regional Science Fair April 6-9, 2022. Students from K-12 from across the Fraser Valley competed for prizes and chance to represent the Fraser Valley with Team BC at the Virtual Canada Wide Science Fair in May <https://youthscience.ca/science-fairs/cwsf/virtual-2022/>. Awards Day began with our 3rd Annual Science Fair Open House where we welcomed the participants, their friends, and families to tour our science labs and take part in demonstrations hosted by some of our amazing UFV faculty and students. Special thanks to the UFV Organizing Committee: **Caroline Majeau**, **Janice Nagtegaal** and **Dr. Ian Affleck** from the FoS Dean's Office and **Dr. Jason Thomas**, Chemistry Department Head. Read more on our science blog: <https://blogs.ufv.ca/science/2022/04/12/ufv-hosts-the-29th-annual-fraser-valley-regional-science-fair/>

Transforming Lives

Dr. Justin Lee, Assistant Professor of Biology, was recently awarded an NSERC Discovery grant for 5 years as well as an early investigator supplement that should allow him to continue work with our undergraduate students providing unparalleled research experience.

Several of our science students were recipients of the NSERC Undergraduate Student Research Awards. CHEMISTRY: **Connor Frey** (**Dr. Golfam Ghafourifar**, Faculty Supervisor) and **Rachel Sailer** (**Dr. Linus Chiang**, Faculty Supervisor); BIOLOGY: **Heather Kelly** (**Dr. Justin Lee**, Faculty Supervisor), **Ryan Goldbach** (**Dr. Lucy Lee**, Faculty Supervisor); and SLUEC: **Vanessa Brewer** (**Dr. Olav Lian**, Faculty Supervisor).

The Faculty of Science Department Assistants, **Pauleen Nuite** (Biology), **Jackie Bryce** (Chemistry), **Amy Huesken** (SLUEC) and from the Office of the Dean, **Janice Nagtegaal** and **Caroline Majeau** attended a Psychological First Aid (PFA) course put on through the Canadian Red Cross earlier this month. They each received their 3-year certification in PFA which will be valuable for our UFV community.

The Faculty of Science is very pleased to announce that **Dr. James Bedard**, Associate Professor from Biology is this year's recipient of the UFV Research Excellence Award for 2022. James studies the collection of genes that make up an organism's blueprint of life.

We are happy to report that our final Science Rocks! (SR) Days "Mad Scientist" camp is being held at our Chilliwack Campus on April 30. Registration has opened for our SR week-long summer camps, and they are already starting to fill up. **Dr. Robin Endelman**, SR Coordinator and Math and Stats Associate Professor, received a \$3,000 grant from the Abbotsford Community Foundation to help support our SR Summer Camps. In addition, she received

confirmation from the Canadian Mathematical Society that they will continue to support our summer camps with \$2700 in funding for this year. <https://www.ufv.ca/science/science-in-the-community/science-rocks/>

The Science Rocks! Organizing Committee is in the process of hiring 3 UFV students for the summer to run the Science Rocks! Summer Camps. Application deadline is May 1, 2022.

Building Community

Environmental Studies student, **Aysha McConkey**, is volunteering with the Abbotsford-Mission Nature Club to set up maternity bat 'condos' and roosting boxes at Willband Creek Park. She will continue to work on bat conservation this summer. <https://www.abbynews.com/community/abbotsford-mission-nature-club-opens-new-homes-for-bats-at-local-park/>

Dr. Lucy Lee had the opportunity to engage with a research group in Norway and participated in a Gill Model workshop as an expert scientific advisor. She also made a presentation at the Norwegian Veterinary institute (see details under Sample List of Presentations). She also invited Dr. Anita Solhaug, Senior Researcher from the Norwegian Veterinary Institute to our campus, and she will be coming here in May/June.

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

Abdullah, G.M.S., El Aal, A.A., Radwan, A.E., **Qadri, T.**, and Aly, N. 2022. The influence of carbonate textures and rock composition on durability cycles and geomechanical aspects of carbonate rocks. *Acta Geotech.* <https://doi.org/10.1007/s11440-022-01561-1>

Enns, C. 2022. Sustainable community design amidst social challenges: Insights from Nairobi, Kenya. In M. Finger, N. Yanar (Eds.), *The Elgar Companion to Urban Infrastructure Governance* (pp. 87-108). Edward Elgar Publishing. ISBN: 978 1 80037 560 4.

Enns, C. and Kombe, W.J. 2022. Child Rights, Agency, and Spatial Justice: Lessons from Three Resettlement Communities. Manuscript submitted for publication.

Lee, L.E.J., Kelly, H., Van Woudenberg, K., and **Lee J.B.** 2022. RT gill-W1 as tools in aquatic toxicology and biotechnology. Second Gill model Workshop, Norwegian Veterinary Institute. Oslo (April 21-22).

Manu, S. 2022. Folding Back to Collect and Language-Switching: A Case Study of Tongan Bilingual Mathematics Teachers. American Educational Research Association Annual Meeting 2022, San Diego, CA (April 21-26).

Sentell, Z., Penner J., **Spooner, J.**, **Weinberg, N.** *Molecular Dynamics Calculations of Partial Molar Volumes of Amino Acids in Aqueous Solutions.* Canadian Journal of Chemistry. Just-IN. DOI: 10.1139/cjc-2021-0217

Weinberg, N., Edwards, E., Huber, L., Sentell, Z., **Spooner, J.**, *A Newtonian Algorithm for Constant Pressure Molecular Dynamics with Periodic Boundary Conditions.* Molecular Physics. DOI: 10.1080/00268976.2022.2060145