

## Monthly Report to the Provost – Faculty of Science

The Faculty of Science (FoS) has the following to report for **April 2024**:

### Engaging Learners

**Dr. Serhii Myroshnychenko**, Math and Statistics, gave a research presentation to students and faculty on March 25 titled “What can you tell about a shape from its measurements?”

Students from **Dr. Cherie Enns** and **Jennifer Hetherington’s** GEOG 364 class participated in the Winter 2024 HUBUB. The project “Game on for Climate Action! Leveraging Gamification in Climate Awareness” by Elena Van Buschbach, Kiyah Price, Ryan Stafford, Cole Lakovou, Liam Fuller, Tariq Malik, and Sydnee Piers won the CityStudio Team Award. Through the project, students learned about the transformative power of gamification in raising awareness about climate change and extreme weather events. The proposed game aims to simulate flood scenarios with the intent to engage and educate the public, while simultaneously enhancing their understanding of preparedness and mitigation strategies.

**Ronald Balagtas**, Chemistry student, was awarded the 2024 Undergraduate Student Travel Award in Honor of Dr. Nick Tolft. Ronald will be attending the Canadian Chemistry Conference and Exhibition (CSC 2024) in June and will present “Employing the Formation of Alginate Hydrogels for the Immobilization of Enzymes within Pipette Tips for Reducing the Loss of Substrate in Bottom-Up Proteomic Analysis.”

AGRI 327: Nursey Production class conducted a Plan Sale on March 9 at the CEP Campus.

### Transforming Lives

### Building Community

**Dr. Serhii Myroshnychenko**, Math and Statistics, received an NSERC Discovery Grant (5 years) and the Early Career Researcher Supplement for the first year, totaling \$107,500. This is not public yet, so it can only be shared internally.

**Drs. Mariano Mapili, Stefania Pizzirani, Afia Raja, and Randal Arsenault** from Planning, Geography, and Environmental Studies participated in the Chilliwack Rotary Climate Fair on April 13 & 14. The event was open to the public and hosted experts in sustainability and renewable energy. **Dr. Stefania Pizzirani** and **Cameron James** (Environmental Studies student) gave a presentation on sustainable fashion. As invited guests, they talked about the impacts of fast fashion, the rise of social media, and how the two affect each other.

**Dr. Stefania Pizzirani**, Planning, Geography, and Environmental Studies, participated in the Green Living Fair on April 20 organized by the Mission Environmental Stewardship Society. Dr. Pizzirani was a guest speaker at the Fair and talked about sustainable fashion and social media.

**Dr. Stefania Pizzirani**, Planning, Geography, and Environmental Studies, will participate in a Climate Change unconference at Magee Secondary School in Vancouver on April 29. At this Climate Change unconference, students will attend various talks by sustainability experts. Dr. Pizzirani will give a talk on the Future of Food, speaking about agri-technology in response to climate impacts on our food system.

The Agriculture Department hosted the PoCo Garden Club, an endowment donor, on March 28. The group was given a tour of the agriculture facilities by the AGRI 324 class where the students shared their learning about the

underlying science and technical skills related to propagation, irrigation, climate control, fertigation, and pest management in greenhouse crops. They also discussed their class research project examining vertical production of radishes using different media.

**Dr. Cherie Enns**, Planning, Geography, and Environmental Studies, is the co-principal investigator on a project called “Catalyzing Women’s Involvement in PostCovid-19 Recovery through Agricultural Cooperatives in Kenya (WINRACK).” The proposal was approved through the Women RISE: Women’s health and economic empowerment for a COVID-19 Recovery that is Inclusive, Sustainable and Equitable, funded by Canada’s International Development Research Centre, the Canadian Institutes of Health Research and the Social Sciences and Humanities Research Council.

The Fraser Valley Regional Science Fair was hosted by the Faculty of Science at UFV on April 11. Elementary and high school students from Hope to Langley presented their Science Fair project for Divisional and Special Awards. About 115 projects were judged by 45 judges that included students, community members, Senior Administrators, as well as past and current faculty members from Science, Health Studies, Business and Computing, and Applied and Technical Studies. Over \$8,000 in prizes were given out, including an Entrance Scholarship worth \$4,000.

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

Du, H., J. Li, D. Xu, W. Ni, X. Mu, B. Sayn, J. Guo, Z. Shi, M. Gu, Y. Yin, Z. Yang, and **M. Hitch** (2024) Effects of steel slag on the properties and microstructure of magnesiouxysulfate cement prepared by magnesium desulfurization by-products. *Journal of Materials Research and Technology*. <https://doi.org/10.1016/j.jmrt.2024.04.070> (SJR Q1)

**Tabatabaee, M.** Microbiome-Glia Crosstalk: Bridging the Communication Divide in the Central Nervous System. *Neuroglia* 2024, 5, 89-105. <https://doi.org/10.3390/neuroglia5020007>