

## Monthly Report to the Provost – Faculty of Science

The Faculty of Science (FoS) has the following to report for the month of **April 2020**:

### Dean's Office:

The Deans Office transitioned well into remote working mode, with daily updates communicated via Zoom among the office members, and weekly “chats” with all of the FoS members that wish to keep engaged through a Q&A weekly session. Additionally, the Dean and Department heads are in close contact monitoring the activities of the FoS and University-wide issues that may arise.

A Q&A session on Evidence Based Science Behind COVID-19 was successfully hosted by **Drs. Lucy Lee, Carin Bondar** and **Natallia Varankovich** on April 2 via Zoom. Close to 50 UFV staff, faculty, and some community attendees participated in this virtual session.

The much anticipated Climate Change music-video, directed by **Dr. Carin Bondar**, UFV Biology Adjunct Professor and Faculty of Science Communicator, was cleverly released on Earth Day, April 22. The production involved undergraduate students **Abdul Aziz-Abdul Ghafoor, Sasha Tuttle, Nafeel Arshad, Jide Arojojoye, Emily Reid, Kaitlin James** and **Megan Simpson**. Faculty members appearing in the video are **Cherie Enns, Stefania Pizzirani, Michelle Rhodes, Olav Lian, Jonathan Hughes, Afia Raja, Ian Affleck, Kseniya Garaschuk, Vanessa Radzimski, Alan Reid, Tim Cooper, Linus Chiang, Pedro Montoya-Pelaez** and of course, Deans **Lucy Lee** and **Jacqueline Nolte** along with UFV President **Joanne MacLean** just to name a few. VIDEO: <https://www.youtube.com/watch?v=Dr1tgIWEJeA>.

**Dr. Carin Bondar** has put the final touches on the first issue of the Faculty of Science magazine. There may be a few more final touches but the viewable document can be seen at <https://indd.adobe.com/view/b0f6e0ab-acc9-4e4f-83fe-e85131e6a4da>

### Biology Department:

Biology student, **Jide Arojojoye**, from **Dr. Sharon Gillies'** BIO 410 Plant Ecology class, joined a host of other UFV students at the CityStudio Abbotsford Virtual HUBBUB #5 Real World Ready <https://letstalkabbotsford.ca/citystudio-virtual-hubbub>. His research project “*Investigation of Soil Compositions and Eradication of Japanese Knotweed*” is being shared with the City of Abbotsford staff, peers, faculty, and community members between April 15-30, 2020. Voting for the Peoples' Choice Award takes place during this time and the winner will be announced online April 30, 2020.

**Dr. Carin Bondar**, UFV Biology Adjunct Professor and Faculty of Science Communicator was a guest on Breakfast Television Vancouver on April 15 where they discussed how Covid-19 is impacting wildlife.

The Faculty of Science was well represented by our students at UFV's Student Research Day held on March 31. A total of 16 biology students participated in the event. **Sierra Schwab** (Supervisor: **Dr. Sharon Gillies**) won the Provost and VP, Academic Award for her research project “Restoration management plan for the UFV campus forest”; and **Aisa Dobie** (Supervisor: **Dr. Nathan Bialas**) won the Associate VP, Research, Engagement, and Graduate Studies Award for her research project “Investigation of the neuroprotective effects of Haskap berry (*Lonicera caerulea*) extract on *Caenorhabditis elegans*”.

## Chemistry Department

The Chemistry department, including **Dr. Cory Beshara** and **Dr. Linus Chiang**'s research labs, donated 12,000 pairs of gloves, 2 cases of safety glasses, 6 splash goggles, 125 lab coats, and 12 half mask respirators with cartridges to the Abbotsford Regional Hospital to help with the PPE shortages and aid the fight against Covid-19.

A record number of chemistry students, 21 to be exact, presented at UFV's Virtual Student Research Day held on March 31. **Farzad Fahimi** (Supervisor: **Dr. Linus Chiang**) won the Dean of Science Award for his research project "Effects of pendant phenol functional groups on secondary coordination spheres of heme like Fe-salen complexes"; and **Amneek Randhawa** (Supervisor: **Dr. Golfam Ghafourifar**) won the Associate VP, Research, Engagement, and Graduate Studies Award for her project "Optimizing digestion of hemoglobin using chymotrypsin and assessing efficiency by capillary electrophoresis"; Congratulations to these and all other participating students as well as their respective supervisors for their efforts.

## Mathematics & Statistics Department

The Search Advisory Committee has completed their screening of applicants and remote interviewing of short-listed candidates, and has recommended a candidate for the tenure-track position. This recommendation will be forwarded to the office of the VPA once reference checking is complete.

The Bioinformatics certificate program (an interdisciplinary proposal from the departments of Biology, Math & Stats, and Computer Information Systems) has been approved at Senate and will be implemented this fall. We thank the program working group chaired by **Dr. Ben Vanderlei** for their expedited work on the proposal.

Close to 30 Rick Hansen Secondary School students will be taking a dual credit course in STAT 106 this summer.

## School of Land Use and Environmental Change (SLUEC)

Student research projects from **Dr. Cherie Enns**' GEOG 364 International Planning and Development: Adapting to Climate Change class and **Dr. Mariano Mapili**'s GEOG 257 Environment: Science and Communications and his GEOG 452 Advanced Field Methods and Techniques joined a host of others at the CityStudio Abbotsford Virtual HUBBUB #5 Real World Ready <https://letstalkabbotsford.ca/citystudio-virtual-hubbub>. This interactive project showcase brings together UFV students sharing their findings and recommendations with City of Abbotsford staff, peers, faculty, and community members. Voting for the Peoples' Choice Award takes place between April 15-30 and the winner will be announced online April 30.

**Dr. Cherie Enns** was a co-applicant with Dr. Ravinder Khaur for a Shastri Institutional Collaborative Research Grant (SICRG) which they were successful for their proposal "Making Chandigarh Child Friendly: Lessons from Canada".

The Canadian Nuclear Safety Commission (CNSC) staff conducted a Compliance Inspection of **Dr. Olav Lian**'s lab, in early March. We were just informed that everything was in order and received a positive letter of compliance dated April 22.

**Dr. Lenore Newman** presented on growing the agriculture technology industry to Abbotsford Mayor Henry Braun and the council members. This presentation concludes the Agriculture Land Reserve (ALR) usage mapping project funded in part by the City of Abbotsford. The mapping was completed by **Drs. Lenore Newman, Lisa Powell, and Mariano Mapili**.

**Sample List of Presentations/Publications (UFV student names underlined) by FoS personnel in past month:**

- Van Steenberge MW, Vanhove MPM, Manda AC, Larmuseau MHD, Swart BL, Khang'Mate F, **Arndt A**, Hellemans B, Van Houdt J, Micha, JC, Koblmüller S, Roodt-Wilding R, Volckaert FAM (2020) Unravelling the evolution of Africa's drainage basins through a widespread freshwater fish, the African sharptooth catfish *Clarias gariepinus*. *J Biogeogr.* 2020; 00: 1-16. <https://doi.org/10.1111/jbi.13858>
- Bols NC, Braley EF, Pumputis PG, Hamilton MEC, Dayeh VG, **Lee LEJ** (2020) Impact of temperature on the integrity of rainbow trout intestinal epithelial cell sheets. World Congress on In Vitro Biology (accepted for virtual presentation)
- Cho SJE, Braley EF, Kelly HM, Lee PW, **Lee JB**, **Lee LEJ** (2020) Astaxanthin Effects on Salmonid and Shrimp Cells in Vitro. World Congress on In Vitro Biology, (accepted for virtual presentation)
- Pritchard DT, **Lee JB**, Bols NC, **Lee LEJ** (2020) Use of fish epithelial cell lines to study the actions of nitrite in fish. World Congress on In Vitro Biology, (accepted for virtual presentation)
- Paulen RC, Rice JM, Ross M, **Lian OB** (2020) Timing and paleogeographic reconstruction of glacial Lake Low in western Labrador. Geoconvention 2020 (accepted but convention postponed due to COVID-19)
- Huntley DH, Hickin AS, **Lian OB** (2020) The retreat of Late Pleistocene (MIS 2) Laurentide and Cordilleran ice sheet limits in northeastern British Columbia, Canada: insights from modern rapid deglaciation. International Geological Congress 2020 (accepted but convention postponed due to COVID-19)
- **Weinberg N** (2020) High Pressure Surfaces and Profiles. World Association of Theoretical and Computational Chemists, WATOC (accepted but postponed)