

Monthly Report to the Provost – Faculty of Science

The Faculty of Science (FoS) has the following to report from **June-August 2020**:

Dean's Office:

On June 18 the FoS came together virtually to celebrate with our science graduates. Our event was well attended by faculty and staff. **Dr. Nathan Bialas** from Biology emceed our event; **Dr. Lucy Lee** proudly announced BSc graduate, **Aisa Dobie** as the Faculty of Science Dean's Medal recipient; BSc graduate, **Shayne Oberhoffner** provided the student address; and **Dr. Jason Thomas** from Chemistry provided a beautiful piano piece.

<https://blogs.ufv.ca/science/2020/06/30/faculty-of-science-came-together-to-celebrate-our-2020-graduates/>

The FoS officially launched its first issue of the Faculty of Science magazine. Our annual magazine highlights the amazing science that takes place here at UFV and the people who are doing it.

https://issuu.com/goufv/docs/fos_2019-2020/1?ff

Dr. Lucy Lee received the 2020 Fellow Award at the 2020 World Congress on In Vitro Biology which was held virtually in San Diego, California in June. This award recognizes Society for In Vitro Biology members who have outstanding contributions in their area of specialization. Dr. Lee also had 3 of her students present posters virtually at this conference (see list of presentations/publications below).

Due to the impacts of Covid-19 the Fraser Valley Regional Science Fair [<https://www.ufv.ca/science-fair/>] had to cancel their fair in April with others across the country. Science Fair BC quickly organized a virtual science fair for June to allow students from grades 4-12 to participate and receive feedback on their work. We were pleased that 14 of our projects participated and 8 of them went on to win cash prizes.

<https://blogs.ufv.ca/science/2020/06/19/fraser-valley-region-shines-at-the-bc-yukon-virtual-science-fair/>

UFV's Climate Change music video which was directed by Dr. **Carin Bondar** (Science Communicator and Adjunct Professor of Biology), and showcased many of UFV's talented faculty and students has been accepted into the Chilliwack Film Festival and is now shortlisted for the Imagine Science Film Festival in New York

<http://imaginesciencefilms.org/>. The Facebook version of the video already has 135,000 views. Watch the video: <https://www.youtube.com/watch?v=Dr1tgIWEJeA>

Biology Department:

Dr. Justin Lee has officially joined the Department of Biology as a tenure-track Assistant Professor after many years as a sessional and LTA in the Department of Biology at UFV. He brings his expertise in Biochemistry and many years of teaching experience not only from UFV but also from UBC.

Dr. Alan Reid presented to the Abbotsford United Church Earth Stewards "Plant a Tree Event" held via Zoom on July 5. This event was held to encourage planting trees in Abbotsford to combat climate change. This Zoom event was organized by **Steven Marsh**, from the School of Land Use and Environmental Change (SLUEC). Also involved in this initiative was **Dr. Tim Cooper** from the Department of Physics. This fundraiser involved two talks from Alan and Tim and they raised \$4,700 for replanting trees in Abbotsford.

Biology Sessional Instructor and Biology Adjunct Professor, **Dr. Carin Bondar** is a featured expert on two new shows, one on the Science Channel in the US called 'Strange Evidence' which just premiered and one for Discovery UK called 'I Got Lucky' which is still in post-production. She is also booked for a documentary shoot for The Nature

of Things which will begin shooting in November. She took part in the Chilliwack Mural Festival in August and created an 8' x 3' inverted rainbow glass mural to represent alternative viewpoints and inclusivity. You can view her work in progress here <https://bit.ly/3l3YStT>.

Chemistry Department

Chemistry students, **Kaeden Teindl**, **Anmol Sharma** and **Warren VandeVen** from **Dr. Linus Chiang's** research lab presented at the Global Inorganic Discussion Weekday virtual conference on Twitter where Warren won one of the five Sir Geoffrey Wilkinson Prizes for his poster. **Warren VandeVen** also participated in the Inorganic Chemistry Exchange Program and gave his end of semester presentation at another virtual conference.

Dr. Cory Beshara has completed his 3-year term as Chemistry Department Head and has now begun his sabbatical. **Dr. Jason Thomas** has begun his 3-year term as the new Department Head of Chemistry.

Chemistry technician, **Leandra Chapmann** went on maternity leave and will be replaced this academic year by **Ariel Brown**, a recent graduate of UFV's Chemistry department. Welcome Ariel!

Mathematics & Statistics Department

Dr. Kseniya Garaschuk was the lead organizer of the Canadian Mathematical Society COVID-19 Research and Education Meeting <https://ccrem20.cms.math.ca/> held virtually July 13-16. She has also been co-organizing bi-weekly Canada-wide Online Teaching Meet-Ups with First Year Math and Stats in Canada [<https://firstyearmath.ca/>] on topics related to remote teaching. They've had a great turnaround of over 50 people each time and so far received very positive feedback so will be continuing with these into the fall term.

Data Analysis student, **Garima Sharma**, along with her faculty Supervisor, **Dr. Shaun Sun**, joined other undergrads from across Canada to present at the Canadian Undergraduate Mathematics Conference held online August 21. The title of her project was "A simulation study of some new tests of independence for ordinal data".
<https://cumc.math.ca/2020/home>

School of Land Use and Environmental Change (SLUEC)

Dr. Mariano Mapili has officially joined the School of Land Use and Environmental Change at the rank of Associate Professor on tenure track. He brings with him extensive teaching experience as an LTA for many years here at UFV as well as from the former Saskatchewan Institute of Technology (now Sask Polytech U).

Dr. Lenore Newman will be joining three other Canadian Research Chairs from UFV this fall presenting at the Virtual Science Café, Abbotsford. Dr. Newman will be speaking on October 6, 2020. The Virtual Science Café is a series of online informal talks, where anyone can come to explore the latest ideas in science, research and technology. <https://www.sciencetalks.ca/>

Dr. Newman has been very active with the Food and Agriculture Institute (FAI) and has recently hired **Dr. Rob Newell**, as Research Associate, replacing **Dr. Lisa Powell** who moved on as Associate Professor at Sweet Briar College in the USA.

Dr. Cherie Enns took part in a webinar with the Research Office/Centre for Global Development on Covid-19 impacts in June.

Sample List of Presentations/Publications (UFV student names underlined) by FoS personnel June-August:

Akuffo, E. and **Enns, C.** 2020. Thinking about global humanitarian interests in the midst of a global pandemic *UFV President's Blog*, August 2020. <https://blogs.ufv.ca/president/guest-post-dr-edward-akuffo-and-dr-cherie-enns/>

Brook, B., Harbeson, D.J., Shannon, C.P., Cai, B., He, D., Ben-Othman, R., Francis, F., Huang, J., **Varankovich, N.**, et al. (2020). BCG vaccination–induced emergency granulopoiesis provides rapid protection from neonatal sepsis. *Science Translational Medicine* May 2020; 12(542): eaax4517. doi: 10.1126/scitranslmed.aax4517

Bols NC, Brale EF, Pumputis PG, Hamilton MEC, Dayeh VR, **Lee LEJ** (2020) Impact of temperature on the integrity of rainbow trout intestinal epithelial cell sheets. World Congress on In Vitro Biology (virtual). A-2004. In Vitro Cell Dev Biol Anim 56:S32

Cho ES, Brale 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 (virtual). A-2005. In Vitro Cell Dev Biol Anim 56:S33

Chong GLW, **Lee LEJ**, Marshall SN, Dowd GC (2020) Isolation and characterization of a new gill cell line, CAgillPFR, from the Australasian snapper (*Chrysophrys auratus*). World Congress on In Vitro Biology (virtual). A-2022. In Vitro Cell Dev Biol Anim 56:S39

Enns, C. and Marazzi, M. (2020) Reset City: A Response to COVID-19. *Planning West*, Summer 2020, pp 12-14.

Garaschuk, K., Liu, A. and Chiang-Fun, A. (2020) *Grade Five Competition from the Leningrad Mathematical Olympiad 1979-1992* Problem Books in Mathematics, Springer International Publishing, e-ISBN 978-3-030-52946-8, ISBN 978-3-030-52945-1

Garaschuk, K. and Jungic, V. 2020 “Assessments in the Time of COVID-9 and Beyond” *CMS Notes* June 2020: 52(3). <https://notes.math.ca/en/article/assessments-in-the-time-of-covid-19-and-beyond/>

Leung, F., **Radzimski, V.** and Doolittle, E. Reimagining Authentic Mathematical Tasks for Non-STEM Majors. *Can. J. Sci. Math. Techn. Educ.* **20**, 205–217 (2020). <https://doi.org/10.1007/s42330-020-00084-9>

Newman, L. 2020. “The Promise and Peril of “Cultured Meat”. In: Katz-Rosene RM and Martin SJ (eds). *Green Meat?: Sustaining Eaters Animals and the Planet*. Montreal: McGill-Queen’s University Press. p. 169-184.

Praat, D. and **Schmaltz, G.** (2020). The Effectiveness of Audio Recordings in the Detection of Disturbances in Great Blue Heron Colonies. Animal Behavior Society Virtual Conference, July 2020.

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 (held virtually). A-2007. In Vitro Cell Dev Biol Anim 56:S33-S34

Sharma, A. and **Chiang, L.** (2020). Electronic Structure investigation of electron rich and efficient Cu-salen complexes. Global Inorganic Discussion Weekday (GIDW) Online Twitter Poster Event.

Sharma, G. and **Sun, S.** (2020) A simulation study of some new tests of independence for ordinal data. Canadian Undergraduate Mathematics Conference (CUMC), August 2020.

Teindl, K. and **Chiang, L.** (2020). Ni-salen complexes bearing pendant phenol groups in the secondary coordination sphere. Global Inorganic Discussion Weekday (GIDW) Online Twitter Poster Event.

VandeVen, W. and **Chiang, L.** (2020). Development of Cu-pyridinedicarboxamide complexes as C-H bond activation reagents. Global Inorganic Discussion Weekday (GIDW) Online Twitter Poster Event.

VandeVen, W. and **Chiang, L.** (2020). Planar, trivalent complexes of bismuth and antimony. Inorganic Chemistry Exchange Conference.

Zurowski, K., Janmaat, A.F., Kabaluk, T., Cory, J.S. (2020). Modification of reproductive schedule in response to pathogen exposure in a wild insect: support for the terminal investment hypothesis. *Journal of Evolutionary Biology* doi:10.1111/jeb.13691