

Department of Chemistry Newsletter

June Issue, 2022



Irving K. Barber Faculty of Science, University of British Columbia
Syilx Okanagan Nation Territory

Announcements

Congratulations to:



Dr. Lauren Erland (Murch group) for the 2022 Carl Douglas Postdoctoral Award to attend Plant Biology 2022 in Portland, USA.



Dr. Jolene Garber (Zandberg group) and **Dr. Wesley Zandberg** for their recognitions as collaborators on Dr. Wade Abbott's Team Award Prize for Outstanding Achievement in Science awarded by Agriculture & Agri-Foods Canada for their contributions to agricultural glycomics.



Matthew McConnachie (Dang group) for being awarded the *Best MSc Presentation* for the 2021–2022 Biochemistry and Biomedical Seminar Series at UBC Okanagan.



WESTERN
ASSOCIATION OF
GRADUATE SCHOOLS

Message and awards from the Western Association of Graduate Schools

Dear Colleagues,

Greetings from the Western Association of Graduate Schools (WAGS)!

We would like to extend my appreciation to you and your university for your support of the WAGS organization. With your institutional membership comes benefits, including the opportunity to nominate outstanding graduate

students from your college or university for recognition in each of our annual WAGS/ProQuest award categories. ProQuest has long been a great partner with WAGS and we are extremely grateful for their ongoing support of these awards.

Each year, we select award winners in four nomination categories. Those categories are:

- The WAGS/ProQuest Innovation in Technology Award
- The WAGS/ProQuest Distinguished Master's Thesis Award in STEM disciplines
- The WAGS/ProQuest Distinguished Master's Thesis Award in humanities, social sciences, education, and business disciplines
- The WAGS/ProQuest Distinguished Master's Thesis and/or Final Master's Capstone Project Award in the creative, visual and performing arts

The 2022–2023 award cycle opens on June 27th, 2022. **The deadline to submit your institutional nominations is October 3rd, 2022, by 5 pm PST.** WAGS member institutions may only submit one nomination in each of the award categories.

For additional information, including nomination details, please visit our award website here: <https://wagsonline.org/awards/annual-wags-proquest-awards/>.

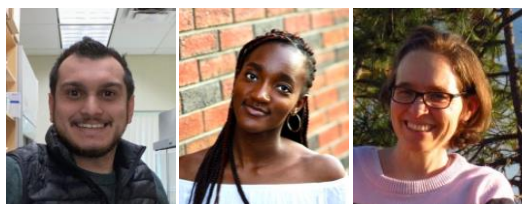
Community and outreach

“Medicines from Your Garden” at École élémentaire Glenmore

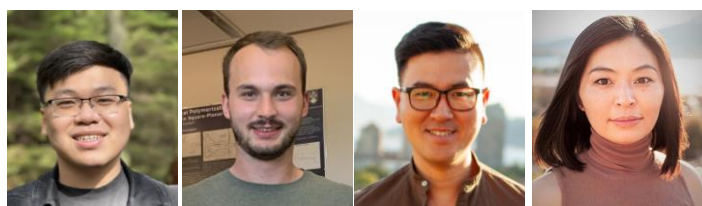
Plant BioCoRe (Dang) group organized some talks and hands-on experiments with 80 grade-I students at École élémentaire Glenmore (Kelowna). Dr. T. Don Nguyen engaged our potential next-generation plant chemists and biochemists with the wonders of medicinal plants. More notably, Helena Nunes, Matthew McConnachie, and Jitesh Bhatia got them to analyze chemical mixtures from plants using various techniques such as: gas diffusion and pressurized extraction coupled with olfactometry (also known as *sniffing* and *squishing-and-sniffing*), liquid extraction (*mixing with water*), and aroma bouquet recreation (*making bath bombs*).



Recent publications



Robert G. Mothersole, Maxim Kolesnikov, Anson C. K. Chan, **Emmanuella Oduro**, Michael E. P. Murphy, **Kirsten R. Wolthers** (2022). Sequence divergence in the arginase domain of ornithine decarboxylase/arginase in *Fusobacteriaceae* leads to loss of function in oral associated species. *Biochemistry*. DOI 10.1021/acs.biochem.2c00197

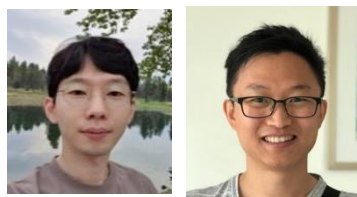


Tuan-Anh M. Nguyen, **Matthew McConnachie**, **Trinh-Don Nguyen**, **Thu-Thuy T. Dang** (2022). Discovery and characterization of oxidative enzymes involved in monoterpenoid indole alkaloid biosynthesis. *Methods in Molecular Biology*. DOI: 10.1007/978-

1-0716-2349-7_11



Lauren A.E. Erland, Christopher R. Dumigan, **Jillian A. Forsyth**, **Liubov Frolova**, **Adam B. Yasunaga**, **Winnie Pun**, **Isaac T.S. Li**, Michael K. Deyholos, **Susan J. Murch** (2022). Mammalian melatonin agonist pharmaceuticals stimulate rhomboid proteins in plants. *Biomolecules*. DOI: 10.3390/biom12070882



S.H. Kim, S Ray, **I.T.S. Li**. 2022. Surveying life one molecule at a time: Single-molecule methods dig deeper into contemporary biology. *Frontiers in Molecular Biosciences*. In press.

E. Taatizadeh, A. Dalili, H. Tahmooressi, N. Tasnim, **I.T.S. Li***, M. Hoorfar*. Nano-scale Particle Separation with Tilted Standing Surface Wave — Experimental and Numerical Approaches. *Particle & Particle Systems Characterization*, 2022, 2200057

Acoustic



Trinh-Don Nguyen (2022). *News and Views*: Plant and pest: The art of (cyanide) war. *Plant Physiology*. DOI: 10.1093/plphys/kiac243

Student affairs

Research proposals

None scheduled for July

Ph.D. comprehensive/thesis oral examination

None scheduled for July

Recent and upcoming events

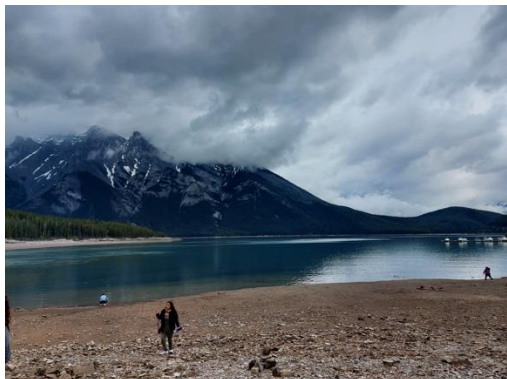
Strong presence of our Department at CCCE 2022

The Canadian Chemistry Conference and Exhibition 2022 (CCCE 2022), the premier meeting for the *Canadian Society for Chemistry* (CSC) of the year, took place in Calgary from 13th to 17th of June. Among more than 2,400 attends, UBC Okanagan's Department of Chemistry displayed an incredible *démonstration de force* with robust idea exchanges and excellent presentations by faculty and students.

Dr. Tamara Freeman gave the captivating *Margaret-Ann Armour Early Career Award* presentation which was received with a **standing ovation**. The national award celebrates excellent contributions to education in chemical science, engineering, and technology. As the Chair of CSC's Chemistry Education Division, Dr. W. Stephen McNeil presented this prestigious award to Dr. Freeman at the Banquet.



Eight members of **Dr. Robert Godin's group** including **Peter Osei Ohemeng, Sutripto Khasnabis, Chang Liu, Jessica Zarama, Nicole Solano, Laura Amaya, Ziyi Zhang, and Dr. Godin** were present. Dr. Godin gave an invited presentation, and Chang gave a talk. The group's posters were presented by Peter, Sutripto, Jessica, and Ziyi. Ziyi also presented a 3-minute flash talk at the *Chemistry in Canada 2067* symposium highlighting undergraduate research. The group also enjoyed an outing to the Tunnel Mountain and Lake Minnewanka in Banff National Park in the Alberta's Rockies.



Dr. Thu-Thuy Dang chaired and delivered an invited talk for the “*New frontiers in natural products chemistry and biosynthesis*” session, which also included an oral presentation by **Tuan-Anh M. Nguyen** (Dang group).



We also showcased our Department's research and teaching with fascinating talks by **Dr. Susan Murch, Dr. Wesley Zandberg** (not one but two!), **Dr. W. Stephen McNeil, Dr. Conor Prankevicius** and **Dr. Riley J. Petillion**, together with many poster presentations.

CSTCC 2022

The Canadian Symposium on Theoretical and Computational Chemistry (CSTCC), organized by Drs. **Gino DiLabio** (University of British Columbia), Nelaine Mora-Diez (Thompson Rivers University), Irina Paci (University of Victoria) is currently held on the Okanagan campus of the University of British Columbia from June 27th-July 1st. **Dr. Robert Szilagy**i is giving a talk and **Jessica Valentina Zarama Buritica** from the Godin and DiLabio groups is giving a poster presentation.



Plant Biology 2022

Several members of our Department and the Okanagan campus in general will attend Plant Biology 2022, the quadrennial joint meeting of the Canadian and American Societies of Plant Biologists. This year, Plant Biology will take place in Portland, Oregon (USA) from 9th to 13th.



PSNA 2022

July 24th–28th: The annual meeting of the Phytochemical Society of North America (PSNA) this year will take place in Blacksburg, Virginia (USA) after the 2021 PSNA (60th anniversary) meeting successfully hosted by UBC Okanagan.



We would like to acknowledge that the land on which we gather is the unceded territory of the Syilx (Okanagan) Peoples.

If you would like to contribute to, or have any suggestions for, our Department's upcoming newsletter, please contact Thuy Dang (thuy.dang@ubc.ca).