



# UVic Forest Biology Update

Summer  
2022

## Meet our Associate Member:

### Dr. Alvin Yanchuk



I have been a research scientist in Forest Genetics Section within the BC Ministry of Forests, Victoria, BC for ~35 years, and was the program manager of the Section from ~1993-2005. Early in my career I focussed on developing practical quantitative genetics methods for the Ministry's tree improvement program, and a framework for incorporating breeding and genetic conservation populations for our commercial species. Many additional challenges have been thrown our way over the last few decades, such as incorporating resistance to insect pests and diseases, climate change and adaptation; no shortage in interesting topics to work on!

Over the years, I have been lucky enough to participate on several Canadian forest gene conservation programs and Genome Canada projects, fortunate enough to work for year with Food and Agriculture Organization (Rome), and a study leave in 2010 at the New Zealand Forestry Research Institute (Scion). They were very interesting and reworking experiences. My current duties are to help coach and mentor all the new scientists and technicians in the Forest Genetics Section and 'run' the red alder and bigleaf maple genetic improvement programs.

As an adjunct professor in the Forest Biology program, I have really enjoyed working with the great staff and students there. The research is always interesting and helpful to the Provincial reforestation program, and I hope we can keep it going!

## Newest FORB Graduates!



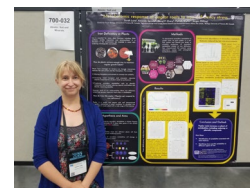
Congratulations to our most recent FORB Graduates, Yalin Liu (MSc) and Camille Giuliano (MSc)! Both participated in the June 2022 convocation ceremony.

Congratulations also to Dr. Gerry Gourlay (PhD) who completed her degree during the pandemic shutdown and participated in the June 2022 convocation ceremony!



## Student Poster Award Winner!

Congratulations to PhD student, Sarah Lane (Ehltling lab), on winning a CSPB-SCBV #PlantBio2022 Student Poster Award!



## The Plant Cell publication!

Congratulations to Harley Gordon and the Constabel lab on their publication in The Plant Cell: 'CRISPR/Cas9 disruption of UGT71L1 in poplar connects salicinoid and salicylic acid metabolism and alters growth and morphology'

<https://doi.org/10.1093/plcell/koac135>

## Celebrating our Honours Students!

Congratulations to the Honours students working in the FORB labs this spring!

**Megan Loland** (Confirmation of UGT71L1's Role in Salicinoid Biosynthesis Using Transgenic Rescue and Overexpression Poplars)



**Simon Petley** (Investigating the Role of Proanthocyanidins in the Regulation of Ectomycorrhizal Colonization)

**Devin Hentschel** (Mechanisms of sexual selection on forelimb length of male intertidal jumping spiders (*Terralonus californicus*) and an investigation into intrasexual and intersexual behaviours)



**Julianne Anderson** (Poplar root extracts as potential iron chelator treatments)

**Sydney Elarid** (The Relationship Between Parkinson's Disease and Prostate Cancer and Examining Artificial Light at Night (ALAN) as a Possible Factor).



## New FORB Members

Niya Kelpin	Dr. Ehltling/ Dr. Willerth	Research Assistant
Bethany Robson	Dr. Roy	Research Assistant
Izzy Laughton	Dr. Ehltling/ Dr. Hawkins	Research Assistant



## Plant Biology 2022 (Portland, OR)



Pictured L-R: Dr. Jürgen Ehltling, Eerik Piirtola, Harley Gordon, Lise Nehring, Sarah Lane and Dr. Peter Constabel.

## Recent Publications

Shay P-E, Winder R.S., Constabel C.P., Trofymow J.A. 2022. Fungal Community Composition as Affected by Litter Chemistry and Weather during Four Years of Litter Decomposition in Rainshadow Coastal Douglas-Fir Forests. *Journal of Fungi* 8(7): 735 <https://doi.org/10.3390/jof8070735>

Nigg M., de Oliveira T.C., Sarmiento-Villamil J.L., de la Bastide P.Y., Hintz W.E., Sherif S.M., Bernier L., and Saxena P.K. 2022. Comparative analysis of transcriptomes of *Ophiostoma novo-ulmi* ssp. *americana* colonizing resistant or sensitive genotypes of American elm. *Journal of Fungi* 8(6): 637 <https://doi.org/10.3390/jof8060637>

Harley Gordon, Christin Fellenberg, Nathalie D Lackus, Finn Archinuk, Amanda Sproule, Yoko Nakamura, Tobias G Köllner, Jonathan Gershenzon, David P Overy, C Peter Constabel. CRISPR/Cas9 disruption of *UGT71L1* in poplar connects salicinoid and salicylic acid metabolism and alters growth and morphology, *The Plant Cell*, 2022;, koac135, <https://doi.org/10.1093/plcell/koac135>

Unterlander N., Mats L., McGary L.C., Gordon H.O.W., and Bozzo G.G. Kaempferol rhamnoside catabolism in rosette leaves of senescing *Arabidopsis* and postharvest stored radish. *Planta* 256, 36 (2022). <https://doi.org/10.1007/s00425-022-03949-5>

Lacourse T, and Adeleye M.A. 2022. Climate and Species Traits Drive Changes in Holocene Forest Composition Along an Elevation Gradient in Pacific Canada. *Frontiers in Ecology and Evolution*. <https://doi.org/10.3389/fevo.2022.838545>