

Interested Faculty

Students can approach other Biology faculty members not listed below.

A complete list of Biology faculty members is located at:

<http://www.uwo.ca/biology/people/faculty.htm>

Dr. M. Bernards, B&GS 2025, Ext. 86477, bernards@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/bernards/index.htm>

Dr. T. DeFalco, NCB 465, Ext. 81475, tdefalc@uwo.ca

Website: <https://scholar.google.ch/citations?hl=en&user=KlOgpxsAAAAJ>

Project proposal: Receptor kinase signalling in plant stress

We use a variety of molecular, biochemical, and genetic approaches to decipher how plants respond to environmental perturbations at the cellular level. The project will involve identifying and characterizing protein kinases and their substrates that function in receptor kinase (RK) signalling pathways.

Dr. G. Kelly, WSC 359, Ext. 83121, gkelly@uwo.ca

Website: <http://www.uwo.ca/biology/directory/faculty/kelly.html>

Also, check out website: [//thekellylab.weebly.com](http://thekellylab.weebly.com) (Access via Wifi)

Project proposal: Wnt and Hedgehog signaling pathways in embryonic and cancer cells.

Dr. S. Kohalmi, WSC 319, Ext. 86485, skohalmi@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/kohalmi/index.htm>

Project proposal: Sequence to Function: the ADT Gene Family

Then come and check out the world of Arabidopsis. Our lab is interested to understand how members of a gene family are regulated, respond to environmental stresses, differ or overlap in their function, are targeted to subcellular compartments and contribute to a functional plant. Intrigued? Ask for more information and stop by for a chat.

Dr. K. Hill, WSC 333, Ext. 81337, khill22@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/hill/index.htm>

Project proposal: In the K Hill laboratory, 2022 projects for undergraduate NSERCUSRA awardees will involve the study of factors that determine mutation signatures and determinants of genome sequence organization. We use in silico, bioinformatics tools and supervised and unsupervised machine learning to classify mutation signatures and genomic signatures. We study mechanisms of mutation, and we discover factors that determine mutation signatures and

genomic signatures. Wet bench work will involve confirming genetic variants discovered to be associated with new meiotic mechanisms of de novo mutation.

Dr. Z. Lindo, B&GS 2034, Ext. 82284, zlindo@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/lindoP/index.htm>

Project proposal: Climate change effects on boreal peatland plant communities Ongoing climate change experiments across two peatland sites in northern Ontario demonstrate shifts in plant community composition. The student will travel to remote peatlands, perform vegetation surveys, and generate data for a long-term experiment. Previous field experience preferred. Valid G class (full) driver's license is mandatory.

Dr. S. MacFie, B&GS 2061, Ext. 86487, smacfie@uwo.ca

Website: www.uwo.ca/biology/faculty/macfie/

Project proposal: Research in the Macfie lab focuses on plant stress and spans the fields of physiology and ecology. We have worked on a variety of species and a number of contaminants, with an emphasis on metals. Our research is important for gaining fundamental knowledge of the eco-physiological responses of plants to metal stress. Our results can be used by agronomists when developing cultivars that accumulate less metal in edible tissues and by environmental scientists when determining guidelines for contaminant levels. NSERC USRA students are expected to have an academic interest in either plant biology or environmental science and preference will go to applicants who have taken at least one course in plant physiology (e.g., Bio 2601, Bio 3603, Bio 3625, Bio 4608).

Dr. J. McNeil, B&GS 3066, Ext. 83487, jmcneil2@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/mcneil/index.htm>

Project proposal: Subjects would be related to climate change and the impact on insects (defined in part with the interest of the student).

Dr. N. Mhatre, B&GS 3023, Ext. 84505, nmhatre@uwo.ca

Website: www.natashamhatre.net

Project proposal: Studying vibrational communication in spiders, or acoustic communication in crickets.

Dr. Y. Morbey, B&GS 2074, Ext. 80116, ymorbey@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/morbey/index.htm>

Project proposal: Evolutionary ecology of animal movement & life history timing. Depending on experience, projects may involve field work on songbirds or quantitative analysis of animal tracking data.

Dr. B. Neff, Collip 204, Ext. 82532, bneff@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/neff/index.htm>

Project proposal: Behavioural and Conservation of Fishes.

Dr. M. Pyne, B&GS 2030, Ext. TBA, mpyne3@uwo.ca

Website: <https://scholar.google.ch/citations?user=i4LrHYAAAAJ&hl=en>

Potential project: Engineering yeast for production of dauricine, a potential plant chemotherapeutic

Dr. A. Percival-Smith, WSC 305, Ext. 84015, aperciva@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/percivalsmith/index.htm>

Project proposal: Phenotypic non-specificity of Transcription Factor Function in Yeast.

Dr. V. Tai, B&GS 2028, Ext. 86209, vtai4@uwo.ca

Website: <https://www.uwo.ca/biology/directory/faculty/tai.html>

Project Proposal: Microbial degradation and ecotoxicology in the application of anticorrosion chemical coatings.

Dr. R. Thomas, rthoma2@uwo.ca

Please contact directly for more info.

Dr. G. Thompson, B&GS 2968, Ext. 86570, gthomp6@uwo.ca

Website: <https://www.uwo.ca/biology/faculty/thompson/>

Project proposal: Evolutionary biology of honey bees and their gut microbes. Like bees? Or microbes? Or both? Then help us study how the gut microbiome of honey bees evolved in symbiosis with their host, and how pesticides might jeopardize this relationship within individuals, colonies and landscapes.

Dr. G. Thorn, B&GS 3047, Ext. 88647, rgthorn@uwo.ca

Website: <https://publish.uwo.ca/~rgthorn/>

Project proposal: Projects on the systematics of mushroom fungi, using phylogenetic analyses of rDNA (and possibly other) sequences.

Dr. L. Zanette, CB 207, Ext. 88316, lzanette@uwo.ca

Website: <http://www.uwo.ca/biology/Faculty/zanette/index.htm>

Project proposal: How the fear of predators affects wildlife prey: from birds to African elephants.

Opportunities at Agriculture and Agri-Food Canada:

Dr. Sangeeta Dhaubhadel, Agriculture and Agri-Food Canada, 519-953-6616

sangeeta.dhaubhadel@canada.ca

Project proposal: Genomics of legume specialized metabolism.

Dr. Abdelali Hannoufa, Agriculture and Agri-Food Canada, 519-953-6621

abdelali.hannoufa@canada.ca

Project proposal: The student will work on abiotic stress tolerance in plants, and will receive training in molecular biology, biotechnology, and plant physiology.

Dr. Frédéric Marsolais, 519-953-6718, Frederic.marsolais@agr.gc.ca

Agriculture and Agri-Food Canada, 1391 Sandford St.,

Website: <https://profils-profiles.science.gc.ca/en/profile/frederic-marsolais>

Project proposal: Results from our recent research have shown that a pectin acetyltransferase gene, expressed in the seed coat, influences the rate of water absorption and seed germination in common bean (Palmer et al. 2021 Legume Sci 3, e130). The project will examine if similar alleles of this gene influence the same traits in other legume species.

Common bean is special because it accumulates an abundant non-protein amino acid, S-methylcysteine, in seeds. The project examines the fate and biosynthesis of this compound in seed. The work includes chemical and biochemical aspects as well testing gene candidates such as glutathione S-transferases and methyltransferases. The ultimate goal of this work is to improve the protein quality of common bean.
