

Graduate student opportunity in plant lipids and stress tolerance

One MSc position available immediately in the [Xu Laboratory](#) at the Department of Molecular and Cellular Biology, University of Guelph

Project description:

Soybean is the largest cash crop grown in Ontario, providing oils and proteins for human consumption and livestock feed. However, soybean production is severely threatened by environmental stresses, such as drought. Lipids are a diverse group of metabolites in plants and play essential biological roles in plant development and resilience to environmental stresses. Lipids are involved in all essential biological processes from forming cell and organelle membranes, sequestering toxic lipid compounds, serving as surface barriers against water loss, to acting as signaling molecules. Currently, little is known about how lipid metabolism affects drought tolerance of soybeans. This research proposes to answer this question with an ultimate goal to establish the knowledge bases and genomic toolkits for the development of resilient soybean cultivars adapted to the changing climate.

The student will be under the guidance of Drs. [Yang Xu](#) (MCB) and [Milad Eskandari](#) (Plant Ag), and will work in close collaboration with other students, technicians, and post-docs on the project. Please contact Dr. Xu (yangxu@uoguelph.ca) for additional information regarding the project and position.

Requirements:

- Background in a relevant discipline (e.g., plant science, biology, genetics or a related discipline)
- Previous lab experience is preferred
- Self-motivated, strong organization, time management, and communication (oral and written) skills
- Problem solving and analytical abilities for experimental design

Application Process:

Please forward cover letter, CV, transcripts, and the names of three references to Dr. Yang Xu by email (yangxu@uoguelph.ca).