

A M.Sc. / Ph.D. graduate student position is available in the laboratory of Dr. Jaideep Mathur in the Department of Molecular and Cellular Biology. [<https://www.uoguelph.ca/mcb/people/dr-jaideep-mathur>].

The incoming student will have the opportunity to work in a collaborative project between the Mathur lab and the Gosling Research Institute for Plant Preservation headed by Prof. P K. Saxena [ <http://gripp.ca/> ; <https://www.plant.uoguelph.ca/psaxena>].

The proposed research is aimed at understanding the recovery of life processes following cryopreservation of plant cells and tissues. Cryopreservation at temperatures of minus 196 °C is a major method for the conservation of genetic resources. The project is designed to provide practical skills and in-depth understanding of this modern technique. A collection of organelle targeted fluorescent protein probes and their visualization in living cells during the rejuvenation process will be involved and train the student in fluorescence and confocal laser scanning microscopy as well as different molecular and biochemical techniques. While the baseline parameters will be established using the model angiosperm *Arabidopsis thaliana*, investigations may subsequently extend to a wider range of economically important plant species. The resulting insights are expected to help refine plant cryopreservation techniques and will add considerably to our basic understanding of plant cells and their amazing ability to survive freezing.

The position is available immediately and will remain open until filled.

#### Requirements

Independent and self-motivated applicants with a strong background in plant biology, biochemistry and molecular biology are encouraged to apply. Prior laboratory experience (undergraduate research project, volunteering or similar) and hands on experience with microscopy would be strong assets. While actively embracing equity, diversity and inclusion (EDI) parameters enshrined in student recruitment at the University of Guelph and MCB < <https://www.uoguelph.ca/mcb/> > the position is open to Canadian citizens or permanent residents.

#### Funding

M.Sc. students in the MCB are funded at a minimum of \$21,259 per year for a guaranteed duration of support of 6 semesters. Ph.D. students in the College of Biological Science are funded at a minimum of \$25,259 per year, and the minimum guaranteed duration of support is 12 semesters. For more details regarding funding, see Student Stipend Information [ <https://www.uoguelph.ca/cbs/student-stipend-information>]. Depending on eligibility, students may also apply for a wide range of internal and external scholarships. See the full list of available Scholarships and Awards for more information [ <https://graduatestudies.uoguelph.ca/current/funding/scholarships>].

#### Application

Interested applicants should submit a CV, unofficial transcript, a letter describing their research interests and career goals, and contact information for two referees to Dr. Jaideep Mathur ([jmathur@uoguelph.ca](mailto:jmathur@uoguelph.ca)).

Further information on the Mathur lab is available at < <https://mathurlab.github.io/> >