

M.Sc. position in computational biology and plant systems biology

Department of Biological Sciences

Plant Genomics Group (www.uhriglab.com)

Position Closes April 1st 2021

Introduction:

The M.Sc. position will be based in the Department of Biological Sciences at the University of Alberta, Edmonton, Alberta, Canada in the laboratory of Dr. R. Glen Uhrig, with research being conducted in collaboration with Dr. Guohui Lin (Department of Computer Science) and the project's industry partner.

The University of Alberta is a Top 5 Canadian university, with the Department of Biological Sciences at the University of Alberta offering a diverse and vibrant community for research and education. The main interests of the Uhrig lab are to understand how plant growth and development is regulated using advanced genomics, transcriptomics, proteomics and phenomics techniques. Broadly, the current project will involve elements of data acquisition, curation, integration and bioinformatic analysis, culminating in the application of machine learning aimed at assessing various plant traits.

Research and Training:

This two year NSERC ALLIANCE – Alberta Innovates CASBE project provides enormous academic and professional opportunities. As such, the candidate will be part of a diverse, multifaceted project team that includes multiple other Uhrig lab members. As part of this team, the applicant will be expected to intersect with Dr. Guohui Lin and the research and development team at the industry partner. This will provide added opportunities for professional development. Further, the candidate will have extensive opportunities for collaboration within the Uhrig lab on other on-going projects.

Applicant Qualifications:

The successful candidate will have most of the skills below:

1. excellent oral and written abilities in English
2. ability to work both independently as well as part of a team
3. experience in database design, especially for large datasets
4. experience with python (or other high-level programming languages) and machine-learning libraries

5. experience with image acquisition, manipulation & processing
6. some experience with bioinformatics and plant science

Eligibility, Admissions and Finances:

For all admission requirements and funding details on graduate studies in the Department of Biological Sciences, please refer to the Department of Biological Sciences website (<https://www.ualberta.ca/biological-sciences/graduate-studies>). Admission is subject to academic and English language requirements set by the Department (<https://www.ualberta.ca/biological-sciences/graduate-studies/for-applicants>).

Interested students are highly encouraged to apply for eligible internal and external graduate student scholarships and will receive active support from the Uhrig lab in these funding applications (<https://www.ualberta.ca/graduate-studies/awards-and-funding/scholarships>). Additional funding and financial aid opportunities for international students: <https://www.ualberta.ca/graduate-studies/awards-and-funding/international-student-funding>.

The Uhrig lab encourages students from all backgrounds and nationalities to apply, and offers a diverse, supportive and healthy work environment.

Appointment Start Date: May 2021 (start day negotiable).

Contact: Interested applicants should send a 2-page CV, their GitHub profile (if applicable), and 2 academic references to [ruhrig\[at\]ualberta.ca](mailto:ruhrig@ualberta.ca) (www.uhriglab.com). Short-listed applications will be asked to interview via Zoom.