

RESEARCH OPPORTUNITY



The University of the Fraser Valley's Food and Agriculture Institute is partnering with Avery Family Farms to support an 8-month research project entitled "**Phytotoxic chemical Remediation: Opportunities for more water-efficient controlled environment growing**", co-funded by the Mitacs Accelerate program.

Position Details:

Research Associate

Paid Internship, University of the Fraser Valley

Contract Term: 4-8 months

Salary: Commensurate with education and set to Mitacs Accelerate funding levels (minimum \$10,000 per 4-month internship unit)

Anticipated Start Date: February 2025

Preference to applications submitted by: **Dec 21/24**

Qualified candidates will have:

- Undergraduate degree in Environment Science, Geography, Environmental Engineering, or a related field; and
- Familiarity with biochemistry.
- Preference will be given to candidates enrolled in Graduate studies

Experience or interest in:

- Controlled environment agriculture
- Biochemistry
- Water chemistry

To apply, please send the following (2) documents to charmaine.white@ufv.ca:

(1) Cover letter outlining research interests and qualifications; and (2) Curriculum Vitae.

Description of Proposed Research:

Root exudate accumulation is an issue in hydroponic fruit and vegetable production systems, where higher concentrations of these naturally produced chemicals can inhibit plant growth over time. Cost effective, efficient, and scalable solutions are needed to detoxify water containing high concentrations of exudates within commercial hydroponic operations.

Avery Family Farms and the Food and Agriculture Institute at the University of the Fraser Valley are partnering to co-develop a solution for this challenge. The candidate will support this work through a combination of literature review, selection and implementation of a pilot solution, and outcomes assessment of the pilot project.

The Researcher will:

- Work within a fully controlled environment growing team, located in Okanagan Falls, BC.
- Co-develop a Mitacs Proposal with their supervising professor and Avery Family Farms
- Conduct a literature review regarding allelochemicals in hydroponic systems, including mitigation techniques.
- Co-develop with Avery Family Farm's research team a promising solution to exudate concentration in their operation.
- Pilot the solution at a small-scale at the Avery Family Farm research facility.

**To learn more about this project please contact:
Dr. Alesandros Glaros, alesandros.glaros@ufv.ca**