

POSTDOCTORAL FELLOWSHIP OPPORTUNITY



The University of the Fraser Valley's Food and Agriculture Institute received \$2.5 million in funding for a four-year research project entitled **'The Social Implications of Agri-Genomics: Ensuring a Just Transition to Climate- Resilient Agricultural and Food Systems in Canada'**. Funded by Genome Canada's Climate Action Genomics Initiative with co-funding from Genome BC, the Mitacs Accelerate program, and industry partner **YEX Inc.**

Position Details:

Postdoctoral Fellow, Researcher

Paid Internship, University of the Fraser Valley

Contract Term: 2 years

Salary: \$65,000/year plus benefits

Anticipated Start Date: October 2024 (or flexible for the right candidate)

Location: Toronto, Ontario

Qualified candidates will have:

- A PhD in Conservation Science, Molecular Biology, Environmental Science, or a related field;
- A strong background in molecular biology and stem cell biology is preferred, with backgrounds in bioengineering, proteomics and bioreactors being an asset;
- Indigenous cultural sensitivity;
- Experience with cell culture, protocol optimization, and filtration techniques; and
- An ability to work effectively on small interdisciplinary teams.

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.

To learn more about this project please contact:
Dr. Stefania Pizzirani, stefania.pizzirani@ufv.ca

Description of Proposed Research with YEX Inc:

In British Columbia, the Fraser Basin and Salish Sea are facing declining salmon stocks raising significant concerns due to the ecological and cultural importance of salmon in this region. This situation prompts critical questions about the potential of emerging agri-genomic technologies, such as cellular aquaculture. These technologies hold the potential to increase agricultural production efficiency, sequester carbon, and reduce food waste, and are expected to make significant inroads in achieving Canada's 2030/2050 emissions targets in food systems. With the potential food system standing to be transformed through the introduction of agri-genomics technologies such as cellular salmon the benefits and impacts of these technologies require a better understanding.

The Postdoctoral Fellow will:

- Work with industry partner YEX Inc., a boutique Toronto-based biotech firm in the sustainable agritech sector.
- Optimize and scale up a protocol for manufacturing an eco-friendly alternative to serum additives (e.g. FBS) for cell culture applications, primarily for applications in cultivating meat and other agri-tech products.
- Review and synthesize the current state of agri-genomic technologies involving cellular aquaculture, evaluating their established or prospective effects using life cycle thinking.
- Explore the benefits and impacts - including social, cultural, environmental, economic - of cellular salmon, with existing technologies and novel ones developed by YEX.