



UNIVERSITÉ  
LAVAL



**INAF**  
INSTITUT SUR LA  
NUTRITION ET LES  
ALIMENTS FONCTIONNELS

## Postdoctoral internship in food microbiology

### Research project on contamination of bulk maple syrup

Microbial contamination poses a critical quality challenge within the maple syrup industry, prompting significant attention. This endeavor engages a collaborative effort among multiple experts, each contributing their unique proficiencies to accomplish the central project goal: the identification and comprehensive evaluation of risks linked to potential microbial contamination or alleged contamination of maple syrup. The pivotal responsibility of the postdoctoral fellow revolves around pinpointing the spectrum of microorganisms present in maple syrup. This task encompasses the utilization of molecular and cultural methodologies to ascertain their viability and proliferation in this environment. To achieve this, the candidate will refine and execute a series of experiments aligned with the subsequent objectives: 1. Precisely quantify the extent of microbial contamination across various categories of maple syrup using advanced molecular techniques. 2. Undertake a comprehensive survey of the diverse microorganisms inhabiting maple syrup through a metataxonomic approach. 3. Assess the survival and growth capabilities of primary contaminants within this matrix, employing a cultureomic strategy that involves the isolation and characterization of predominant contaminants. Furthermore, the postdoctoral fellow will maintain a close collaborative relationship with the project partners. Their involvement will extend to the amalgamation and analysis of collective project outcomes, along with the communication of findings via reports, scholarly articles, and various forms of scientific discourse.

#### Requirements

- PhD in a relevant scientific field
- Laboratory experience in microbiology (cultivation of bacteria and fungi) and molecular biology (quantitative PCR and sequencing)
- Knowledge of bioinformatics is an asset
- Dynamic, rigorous, curious and resourceful candidate
- Scientific writing skills

#### Duration

Fall 2023 - Spring 2025

#### Salary

45,000 annually, plus benefits as per the collective agreement for postdoctoral fellows at Université Laval. The candidate will also be encouraged to apply to national and international granting agencies.

**Place of employment**

The candidate will work under the supervision of Professor Marie Filteau in the Department of Food Science at Université Laval (Quebec City, Capitale-Nationale, Quebec) and in collaboration with researchers at Centre Acer Inc. (Occasional travel to St-Hyacinthe).

Valuing equity, diversity and excellence, Université Laval is firmly committed to offering all its staff a working and living environment imbued with an inclusive culture. For Université Laval, diversity is a source of richness, and we encourage qualified individuals of any origin, sex, sexual orientation, gender identity or expression, as well as people with disabilities, to apply. Université Laval also subscribes to an equal employment opportunity program for women, members of a visible or ethnic minority, aboriginal people, and people with disabilities. Please note that measures to adapt selection tools can be offered to disabled people according to their needs, and this in complete confidentiality. In accordance with Canadian immigration requirements, priority will be given to qualified individuals with Canadian citizenship or permanent resident status.

**To apply**

Send a cover letter and Curriculum Vitae to [marie.filteau@fsaa.ulaval.ca](mailto:marie.filteau@fsaa.ulaval.ca)