

## PhD Projects in Ecology and Evolution of Leaf Symbioses

*Lajoie Lab – Institut national de la recherche scientifique (INRS)*

The Lajoie Lab (INRS – Armand-Frappier Santé Biotechnologie Research Centre) is recruiting **two PhD students for projects in ecology and evolution of leaf symbioses**, starting in 2026.

**Context :** Life with hosts is an important aspect of the ecology and evolution of a myriad of taxa. From pollinators acquiring their food from plants to parasites reproducing in the cells of humans, host–symbiont interactions can have important impacts on the fitness of both sets of partners along the mutualism to parasitism symbiotic spectrum. As global changes alter the distribution of climatic conditions on Earth, they are also shifting the ranges of many organisms. Consequently, the abiotic and biotic contexts in which symbioses occur and evolve are being transformed, which uncertain consequences for the health of crops, forests, and human populations.

**Our lab :** Research in our lab aims to understand the mechanisms behind the emergence, maintenance, or dissolution of symbiotic relationships in changing environments, focusing on leaf microbes as a study system. We use a combination of conceptual and methodological approaches stemming from community ecology, evolutionary ecology, microbiology and meta-'omics to address these questions, including field, laboratory-based, and in silico experiments.

**Projects :** Two fully funded PhD positions are currently available in our lab, focused on the following research themes:

*Project 1.* Understanding the mechanisms of adaptation of foliar bacteria to their hosts and the evolutionary processes that determine leaf bacteria host range (i.e., specialist ↔ generalist).

*Project 2.* Metapopulation dynamics of *Pseudomonas* spp. forming biofilms on leaf surfaces across the symbiont–pathogen continuum (co-supervised by Eric Déziel at INRS).

Projects may begin as early as January 2026. This call will remain open until the positions are filled. The research will be based in Laval (QC), and the base funding for each student is \$26,000 CAD per year for 4 years.



**Candidate profile :** Applicants must hold, or be in the process of completing, a Master's degree in a relevant field of research. Emphasis will be placed on prior research experience and motivation to pursue doctoral studies in ecology and microbiology. The quality of the academic record, laboratory experience (in microbiology or molecular biology), and/or experience with statistics and bioinformatics (e.g., Unix, R, Python) will be considered strong assets. Note that INRS is a predominantly French-speaking institution so prior knowledge of French, or interest in learning French for interacting with the community will be valued.

**Interested?**

Please send a cover letter summarizing your research interests and relevant experience for the project, along with your CV, a recent academic transcript, and the names and contact information of two referees to Geneviève Lajoie ([genevieve.lajoie@inrs.ca](mailto:genevieve.lajoie@inrs.ca)). Feel free to contact me at the same address with any questions. Looking forward to hearing from you!

**Geneviève Lajoie, PhD**  
**Professeure adjointe**

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