

### Evaluation and characterization of prophylactic biological products on the suppression of *Pythium* spp. in greenhouse productions

#### Program

Master's degree with thesis in plant biology

#### Project description

Substrates used in greenhouse production are auspicious environments to the development of fungal and oomycete populations. Generally, *Pythium* spp. can infect a wide range of hosts, and significantly reduce crop yield. However, the nature and pathogenicity of species remain poorly understood, compromising the development of specific and effective treatments. The master's project aims to deepen knowledge of pathogenic *Pythium* in greenhouses, while studying different prophylactic products for biological control.

#### Objectives

- Characterization of the genetic profile of different pathogenic *Pythium* isolates;
- Evaluation and characterization of the effectiveness of different products against *Pythium* pathogens;
- Determination of the persistence of biological control agents using molecular approaches.

#### Supervision

Richard Bélanger, biocontrol lab, full professor in Université Laval phytology department

#### Requirements and conditions

- Bachelor's degree in biology, agronomy, molecular biology, microbiology or equivalents;
- Interest in phytopathology;
- Enjoy working in a team;
- Autonomy.

#### Relevants informations

Project start: May 2024 - To be discussed

Project duration: 2 years

Location: Envirotron, Université Laval, 2480 Bd Hochelaga, Quebec, QC G1V 0A6

#### Financial support available

Scholarship of **\$21,000** offered per year for a period of 2 years

#### Documents required

- Cover letter;
- CV;
- Transcript.

Send us your CV, transcripts, as well as a cover letter, before March 1, 2024, to the following address:

[patricia.denis.2@ulaval.ca](mailto:patricia.denis.2@ulaval.ca)

#### For more information

Patricia Denis

Professionnelle de recherche

Département de phytologie

[patricia.denis.2@ulaval.ca](mailto:patricia.denis.2@ulaval.ca)



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