Appel à candidature

Master’s project (M. sc.) in plant physiology – Evaluating the impact of leachate irrigation on the ecophysiological response of willows

IRBV-October 2019

We are seeking a master’s student to begin a research project for 2020-2022. The candidate will be involved in the Phytovalix project: i.e. the phytotreatment and valorisation of landfill leachate using a plantation of willows on a site north of Montreal.

This project involves two industrial partners as well as researchers from Polytechnique Montréal (Yves Comeau) and the Institut de Recherche en Biologie Végétale (Michel Labrecque, Frédéric Pitre et Joan Laur), University of Montréal.

Project description:
The successful candidate will perform laboratory, greenhouse and field measurements. A greenhouse experiment in which the student will be involved will take place in parallel to the field experiment.

The project necessitates several methodologies to evaluate the impact of leachate irrigation on willows’ physiology, growth and development: the following parameters will be measured: 1) Chlorophyll fluorescence (Fv/Fm ratio), water potentials, photosynthesis, stomatal conductance, leaf transpiration and anatomical measurements; 2) biomass production, wood density and biomass properties. Depending on the student’s interests, additional research options include: 3) high value extractives characterisation and 4) study of the microbiota associated with willows.

Offered scholarship: 17 500$ per year (1458 $/month)

Required profile: Bachelor in plant biology, microbiology, environment, agronomy, forestry, biochemistry or any other related field.

Requirements: valid driver’s licence

Project start date: January or May 2020
Contact Dr. Joan Laur: joan.laur@umontreal.ca