Posting date: September 12, 2016

Seeking Two Postdoctoral Fellows in Tree Responses to Insect Herbivores and Drought

Area of Research: Chemical Ecology & Ecophysiology

Location: Department of Renewable Resources, University of Alberta, Edmonton (Alberta, Canada)

Description of positions: The interdisciplinary project goal is to characterize the contributions that metabolomics and genomics-assisted tree breeding can play in comprehensive forest planning. Postdoctoral fellows (PDFs) sought for this project to assess the activities of tree defense and ecophysiological responses to insect herbivory and drought. The PDFs will characterize the secondary compounds, anatomy, and ecophysiology of two conifer species (lodgepole pine and white spruce) in response to insect herbivory and drought treatments in both greenhouse trials and associated progeny field trials in Alberta. The PDFs will be responsible for conducting and coordinating both lab and field investigations that include anatomical and chemical characterization of tree defenses, assessment of ¹³C, gas exchange, and chlorophyll fluorescence plant drought response, implementation of greenhouse and field experiments, data management, statistical analyses, writing reports and peer-reviewed journal manuscripts, and interact with industrial and government partners. The PDFs will also assist with supervision of full and part-time research assistants and undergraduate students. Even though each PDF will have his/her own research projects, it is expected that they work and collaborate together.

Salary: \$50,000+ benefits per year, commensurate with experience.

Required qualifications: PhD in a relevant field is required. The ideal candidate should have background and experience in chemical ecology, ecophysiology, entomology, forest ecology, with strong analytical chemistry of plant secondary compounds (primarily terpenes and phenolics) using GC-MS and LC-MS, and writing skills. Suitable applicants with a primary background in one or more areas, plus interest in other research areas, are encouraged to apply.

Application instructions: All individuals interested in these positions must submit: (1) an updated CV; and (2) a cover letter explaining their qualities, including a list of 3 references and along with their contact information (a maximum of 2 pages). Applications should be sent by email to Nadir Erbilgin (erbilgin@aulberta.ca) and Barb Thomas (bthomas@ualberta.ca) by the closing date. Please list "PDF application in Tree Responses to Insect Herbivores and Drought" in the subject heading.

Closing date: November 30, 2016.

Supervisors: Nadir Erbilgin (https://sites.ualberta.ca/~erbilgin/) and Barb Thomas (https://www.rr.ualberta.ca/StaffProfiles/AcademicStaff/Thomas.aspx)

Expected start date: January 2017 (with some flexibility)

Terms: 1-4 years (1st year initial appointment, with additional years subject to satisfactory performance).