Postdoc position (molecular biology, genetics and bioinformatics) to investigate molecular communication between tropical plants via common mycorrhizal networks

Arbuscular mycorrhizal fungi (AMF) are important soil microorganisms that colonize soil and interconnect individual plants of the same or different species to form ‘common mycorrhizal networks’ (CMNs). These “mycorrhizal webs” are hypothesized to play key roles in ecosystems, transporting nutrients between plants and possibly acting as warning channels for communication between plants. In this project, we aim at investigating the role of CMNs in communication between tropical crop plants, in particular cassava and banana. The project will also take advantage of bioinformatics tools, including CIDER-Seq (Mehta et al. 2019, Nucleic Acids Research, gky914; Mehta et al., 2020, Nature Protocols), to investigate the nature and roles of molecules transported through the CMNs.

This project is in collaboration with the team of Professor Stéphane Declerck (UCLouvain), a leading laboratory in the field of AMF physiology and networks. The project will also take advantage of the banana research activities taking place in the Laboratory of Tropical Crop Improvement at KULeuven.

(https://www.biw.kuleuven.be/biosyst/plantenbiotechniek/tropical)

Research activities will be performed at University of Liège, Gembloux Campus (35 min by train from Brussels) in an international team (Plant Genetics Lab) with research focus on plant nutrition and improvement of vegetatively propagated crops.

Weblink: https://www.gembloux.ulg.ac.be/plant-genetics/

Profile

The candidate should hold a PhD and have demonstrated expertise as well as scientific publications in at least two of the following research fields: molecular biology, bioinformatics, plant genetics, plant physiology, soil microbiology, plant pathology, biotechnology. Candidates with good expertise in bioinformatics are particularly welcome. Excellent oral and written communication in English is required.

Appointment is for 2 years with possibility of renewal.

Benefits

Net salary after taxes and social benefit costs is 2250 €/month.

Information and application:

Professor Hervé Vanderschuren, Plant Genetics, Gembloux Agro BioTech, University of Liège, Belgium (herve.vanderschuren@uliege.be) and Dr Cécile Thonar (cecile.thonar@uliege.be)

Application (CV, cover letter and two letters of recommendation) should be sent by Email to Professor Hervé Vanderschuren with the Email subject “CMN postdoc application”.

Deadline for application: reviewing of applications will start on 21/09/2020 but the position will remain open until suitable candidate is identified.

Starting date: expected October - December 2020.