Postdoctoral Fellow Wanted in Microbial Genomics at Université Laval, Quebec, Canada

We are looking for a highly motivated Postdoctoral Fellow to work on a project to be funded by Mitacs and McCormick Global Ingredients Limited (MGIL) on “Metagenomics of black pepper (Piper nigrum Linn.) rhizomicrobiome for the development of beneficial and safe bioinoculants”. The aim of this project is to engineer root microbiomes by using beneficial, environmentally safe bioinoculants for healthier crops and soils, while reducing the requirement for inorganic fertilizers and pesticides. The objectives of the project are to: i) conduct analysis of the root and rhizospheric microbiomes of black pepper by 16S/internal transcribed spacer 2 (ITS2) rRNA amplicon metagenome sequencing; ii) model the associations of physico-chemical and plant phenomic traits with the functional microbial groups; iii) in vitro and in vivo select the best microbial symbionts and plant growth promoting rhizobacteria (PGPR) for their effectiveness as biofertilizers and biocontrol agents against root rot diseases in order to develop a synthetic microbial consortium that will be tested in real-world conditions in Vietnam. This research work will be conducted at different scales: laboratory and greenhouse at Université Laval and field trials in Vietnam, with the final goal to develop a synthetic microbial consortium that will be used as a commercial bioinoculant for black pepper orchards in Vietnam.

Qualifications and skills: The candidate must be a fresh talented Postdoc (not more than 1 year after completing PhD studies) eligible for Mitacs Accelerate programme (http://www.mitacs.ca/en/programs/accelerate/fellowship) with solid background in genomics, bioinformatics and biostatistical analyses; and an excellent command of English. The candidate should also have some skills in one or more of the following fields: microbiology, plant and microbial molecular biology, molecular ecology, quantitative or population genetics. The successful candidate should also have good interpersonal skills and an ability to work well in cross-cultural environment. He (she) will have access to one of the most positive and productive learning and research environments in Canada as a Postdoc member of the following: Institute for Integrative Biology and Systems (http://www.ibis.ulaval.ca), Centre Sève for Plant Research (http://centreseve.recherche.usherbrooke.ca), Centre for Forest Research (http://www.cef-cfr.ca), and Canada Research Chair in Forest and Environmental Genomics (http://www.genomiqueforestiere.chaire.ulaval.ca)

Applications: To apply you must send your CV following Mitacs-Accelerate Intern CV Template (https://www.mitacs.ca/en/programs/accelerate/proposal) and 2-3 reference letters by email to Damase.Khasa@ibis.ulaval.ca ou richard.hamelin@ubc.ca. Deadline: April 15, 2020.

Funding: Mitacs-McGIL total research award: Can$ 135 000 for 3 years (Intern stipend: Can$ 120 000 for 3 years and Can$ 15 000 for research costs). Supplement budget for research costs will be covered by a companion project.