Environmental Microbial Genomics

Laboratoire AMPERE

CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE

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# Postdoctoral position in soil microbial interactions in the nitrogen cycle

A postdoctoral research position in soil microbial interactions is available at École Centrale de Lyon, University of Lyon, France. The postdoc will work within the framework of the French National Research Agency funded project 'FUNCTION'. The overall theme of the project is to determine the importance of arbuscular mycorrhizal fungi (AMF) interactions in the nitrogen cycle for mitigating nitrous oxide emissions from agroecosystems.

Fertilizer use in agriculture has had enormous deleterious environmental consequences. The inefficient use of nitrogen fertilizer in agricultural soils results in the loss of N through nitrate leaching or emission of the greenhouse gas nitrous oxide, contributing to climate change, ozone depletion and major economic losses. The rate at which anthropogenic-derived N is returned to the atmosphere, including the proportion as $N_2O$, is largely governed by the ecology and biology of the microorganisms involved. FUNCTION, will define the role of AMF in the N-cycle via their interaction with microorganism that contribute both direct and indirectly to $N_2O$ production in agroecosystems and their involvement in mediating $N_2O$ emissions derived from N fertilizer and nitrification inhibitor inputs in soil.

The Hazard (genomenviron.org/index.php/christina-hazard/) and Nicol Lab (genomenviron.org/index.php/graeme-nicol/) is looking for a talented, dynamic and dedicated researcher who is a team player and excited to drive forward this project. Interested candidates should have a PhD in a related field and a demonstrable publication record. Those with experience in soil nitrogen cycling, nitrifiers and/or mycorrhizal fungi are particularly encouraged to apply. Experience in molecular microbial ecology and in nitrification research would be highly beneficial, and in conducting plant-soil microcosm experiments.

The position is for 18 months with potential to extend. Anticipated start date is September 2023.

For informal enquiries or to apply, please contact Christina Hazard (Christina.Hazard@ec-lyon.fr). For applications, please send a 1-page cover letter (highlighting your interest and relevant experience) and CV (with contact information for 3 references).