

Postdoctoral researcher position in soil nitrogen cycling

2.5-year (minimum) postdoctoral researcher position in soil nitrogen cycling is available within the Environmental Microbial Genomics Group (<http://www.genomenviron.org>) at École Centrale de Lyon, University of Lyon, France.

The postdoc will work within the framework of the EC-funded project 'ACTIONr' (H2020 project funded under the call HORIZON-WIDERA-2021-ACCESS-03-01 Call Twinning). The 3-year project is in collaboration with the University of Thessaly (Prof. Dimitrios Karpouzas and Assistant Prof. Evangelia Papadopoulou) and University of Vienna (Prof. Christa Schleper and Dr Melina Kerou).

The overall theme of the research programme is to elucidate the interaction of nitrification inhibitors with microbial communities involved in soil nitrogen cycling. The mitigation of reactive N loss via nitrification inhibitors is a promising solution for increasing N use efficiency (NUE) in agriculture. ACTIONr aims to unravel the scientific excellence and innovation potential through a European network of excellence on establishing novel tools and pathways for optimized NUE, reducing the continued acceleration of the N cycle, and decreasing the environmental footprint of reactive N.

The main tasks of the successful candidate will be:

- Assessment of the behaviour, efficiency and off-target toxicity of nitrification inhibitors on the soil biota including both N cycling microbes and the total microbial community using a range of molecular tools (qPCR, amplicon sequencing etc)
- To analyse molecular and omic data using biostatistical and bioinformatic tools
- To determine the effects and activity range of synthetic and biological nitrification inhibitors in soil ecosystem using DNA-SIP
- To determine the effects of nitrification inhibitors on GHG emissions in soil
- To write scientific papers and present the research in scientific conferences
- To participate and contribute to the dissemination, networking and training activities of the project
- 1-year opportunity to participate in the supervision of lab work of PhD student from University of Thessaly in the ACTIONr project

Applicants must have a strong background in molecular microbial ecology (e.g. qPCR, amplicon sequencing, bioinformatics, DNA-SIP) and previous experience in nitrification research would be highly beneficial.

The start date is flexible but anticipated January 2023. Salary will be dependent on experience, but around 36k euro per year.

To enquire, contact Prof. Graeme Nicol (graeme.nicol@ec-lyon.fr) and Dr. Christina Hazard (christina.hazard@ec-lyon.fr). To apply, please send a 1-page cover letter (highlighting your interest and relevant experience) and CV (with contact information for 2 references).

The deadline for applying is September 15, 2022. Short listed candidates will be invited for an interview.