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## Postdoc Position in Environmental Microbiology and Soil Microbial Ecology

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### RESEARCH ACTION NETWORK FOR REDUCING REACTIVE NITROGEN LOSSES FROM AGRICULTURAL ECOSYSTEMS (ACTIONr)

#### A Postdoc Position in environmental microbiology and soil microbial ecology

University of Thessaly is offering a postdoc position in environmental microbiology and soil microbial ecology with expected commencement in November 2022 or as soon as possible thereafter. The position is offered in the frame of the project ACTIONr, an H2020 project funded under the call HORIZON-WIDERA-2021-ACCESS-03-01 Call Twinning. It is a 3-year project starting at 1.11.2022 and involves the collaboration of University of Thessaly with Ecole Centrale de Lyon (Group G. Nicol & C. Hazard) and University of Vienna (Group C. Schleper and M. Kerou).

#### Brief Project Description

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.

**Principal Investigators:** Prof. Dimitrios Karpouzas, [dkarpouzas@uth.gr](mailto:dkarpouzas@uth.gr), +30-2410565294 & Assistant Prof. Evangelia Papadopoulou [evapapadopoulou@uth.gr](mailto:evapapadopoulou@uth.gr), +30-2410565232

#### Job description

The position is available for 36 months. The main tasks of the successful candidate will be:

- To assess the efficiency of different synthetic and biological nitrification inhibitors on AOA and AOB soil isolates in liquid cultures studies
- To establish synthetic communities of nitrifiers and test the efficiency of different NIs on them in a more ecosystem relevant in vitro assay
- To determine the mode of action of specific synthetic and novel biological nitrification inhibitors at cellular level using transcriptomic and proteomic approaches,
- To work on the 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 (q-PCR, amplicon sequencing etc)
- To analyse molecular and omic data using biostatistical and bioinformatic tools
- 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
- To work closely and supervise the lab work of two PhD students that will form the working group of University of Thessaly in the ACTIONr project

#### Key criteria for the assessment of candidates

- First degree and MSc in Biosciences
- PhD in Soil or Environmental Microbiology or Microbial Ecology or Ecology
- Strong background in microbial ecology, bioinformatic and biostatistical methods (e.g. q-PCR, amplicon sequencing) and/or microbial biochemistry and physiology
- Good knowledge of N microbial cycling and prior working experience in this area will be a merit

#### Terms of employment

Recruitment and Terms of appointment will be done according to the national rules and regulations. The stipend of the fellow will be 3000 € gross monthly (depending on qualifications of the candidate) covered through a fixed term contract.



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### Place of Employment

University of Thessaly, Department of Biochemistry and Biotechnology and Department of Environmental Sciences, Larissa, GREECE, Website: <https://plantenvlab.bio.uth.gr> The successful candidate will take on short scientific missions taking specific training on Stable Isotope Probing, GHG emission measurements and proteomics in Ecole Centrale de Lyon and the University of Vienna.

### Application Procedure

The application, must be submitted by email to [dkarpouzas@uth.gr](mailto:dkarpouzas@uth.gr) and [evapapadopoulou@uth.gr](mailto:evapapadopoulou@uth.gr)

### Please include

- Full CV including studies, research experience, work experience and publications if available
- 2 professional referees (Name, address, telephone & email)

The University of Thessaly wish our staff to reflect the diversity of society and thus welcomes applications from all qualified candidates regardless of age, gender, race, religion or ethnic background.

**The deadline for applications for both positions is 15.9.2022.**

**Recruitment Process:** The project manager will provide all applications to the recruitment committee which will select the best three candidates and ask them for interview. The applicants will be notified of the final selection and will be given 7 days to accept or decline.

