

Postdoc Position in Environmental Microbiology



The newly established Department of Environmental Microbiology at the Institute for Sanitary Engineering, Water Quality and Solid Waste Management (ISWA) at the University of Stuttgart is delighted to announce an open DFG-funded position for a Postdoctoral Researcher (3 years).

Project Overview:

Karstified and fractured subsurface aquifers serve as vital sources of drinking water globally. However, the infiltration of nitrate (NO_3^-) from agricultural fertilizers poses significant challenges, as elevated nitrate levels can have adverse health effects. The European Union has established strict standards (50 mg/L) for nitrate concentrations in drinking water, which are often exceeding in regions with intensive agricultural activity.

This project aims to unravel the role of microorganisms in nitrate turnover within subsurface aquifers. Specifically, we will determine the taxonomy and functional capabilities of denitrifying microorganisms inhabiting carbonate rock in the catchment of the Ammer river in south-west Germany. In addition, we will explore microbial colonization of porous rock matrix through in-vitro experiments with denitrifying microorganisms.

The candidate is expected to:

- Lead and conduct field campaigns.
- Plan, execute, and troubleshoot lab experiments.
- Be open to exploring new methodologies, techniques, and research directions.
- Communicate research findings effectively through written reports, scientific publications, and presentations.
- Collaborate within the research team and with external partners.
- Supervise BSc, MSc, and PhD students.
- Teach classes at BSc and MSc level (optional).

Requirements:

- A PhD in microbiology, environmental science, or a related field.
- Strong expertise in microbiology, microbial ecology, and molecular biology techniques.
- Field work expertise.
- Experience in subsurface microbiology, water chemistry and bioinformatics.
- Excellent English written and oral communication.
- International experience.
- Excellent communication skills and the ability to work collaboratively.

We are offering a postdoctoral position in an interdisciplinary and international team of Environmental Microbiologists and Microbial Ecologists. The starting date is April 2024 or as soon as possible thereafter. Employment (3 years, TV-L E 13, 100%) will be arranged by the administration of the University of Stuttgart. Applications including CV, motivation letter, summary of research and teaching experience, publication list, an overview about the methods used in the past, and contact information of three academic references should be uploaded via JoinUS Universität Stuttgart application system (<https://careers.uni-stuttgart.de/job/Stuttgart-DFG-Postdoc-Position-in-Environmental-Microbiology/964396555/>) before January 31st, 2024.

More information about the Department of Environmental Microbiology can be found on the website: <https://www.iswa.uni-stuttgart.de/institute/em/>