



The Collaborative Research Center SFB 1076 "**AquaDiva** – Understanding the Links between Surface and Subsurface Biogeosphere" is funded by the Deutsche Forschungsgemeinschaft (DFG). AquaDiva is an ambitious research center with more than 70 researchers and Institutes at four faculties of the Friedrich Schiller University Jena (FSU) and three non-university research institutes in Jena or Leipzig. The integrated Research Training Group AquaDiva is educating doctoral researchers in a structured, interdisciplinary training program. AquaDiva combines different research areas, such as ecology, microbiology, hydrogeology, soil science, geomorphology, geochemistry, geology, geophysics, chemistry, and information science, to a comprehensive picture of subsurface research (www.aquadiva.uni-jena.de).

The Integrated Research Training Group AquaDiva invites applications for a

Doctoral Researcher Position (m/f; Ref.No. 254/2017)

(has already been published under Reg.-No. 129/2017)

at the Institute of Biodiversity, Aquatic Geomicrobiology, at the Friedrich Schiller University Jena (FSU)

From the Forest Canopy to the Aquifer: the Role of Microbial Processes in the Origin and Fate of Nitrate in the Earth's Critical Zone

This project aims to understand, which factors are driving nitrification and nitrogen loss via denitrification or anammox across two superimposed oligotrophic limestone aquifer assemblages in the Hainich Critical Zone Exploratory. To identify key processes and players, rate measurements will be complemented with the analysis of natural abundances of ¹⁵N isotopes in nitrate and ammonium and with molecular surveys of the corresponding microbial communities. To assess the influence of surface conditions in groundwater recharge areas, we will follow the microbial transformation of N compounds from forest canopies via soils and seepage water to the groundwater.

Requirements:

- A Master's degree (or equivalent) in **microbiology, biogeochemistry, geo-ecology**, or a related discipline in the environmental sciences
- **Solid knowledge** of microbial ecology of the nitrogen cycle and molecular approaches to investigate microbial communities in environmental samples
- **Excellent technical skills** in: standard methods of molecular microbial ecology (nucleic acid extraction from environmental samples, PCR, cloning, sequence analysis, standard cultivation techniques of microorganisms, photometric methods of water chemical analysis); experience in the analysis of next generation sequencing data and in ¹⁵N-based isotopic approaches would be desirable but are not mandatory
- Readiness to work for extended periods in the field
- Enthusiasm to play an active role in the **interdisciplinary research team** of AquaDiva
- Highly motivated and creative personalities, with an interest to shape their own thesis project
- Excellent written and oral communications skills in **English**

We offer:

- A doctoral researcher position (TV-L E13 - salary agreement for public service employees, 65%) starting Nov 1, 2017, with funding until Jun 30, 2021, as well as generous research funding with the possibility of a three-months research stay abroad
- Opportunity for research on an innovative and unique Critical Zone research platform
- A comprehensive mentoring program with supervision by a team of advisors
- A communicative atmosphere within a scientific network providing top-level research facilities and training program, including participation in international and national conferences and workshops
- The place of work is Jena, Germany, a young and lively university town with dynamic business activities, successful scientific centers of innovation, and a vibrant cultural scene around a university with a rich tradition

Applications should be written in English. The **application deadline is Oct 22, 2017**. The position is open until filled. Please **e-mail your application** (including motivation letter, curriculum vitae, certificates, supporting letters, name and contact information of 3 referees; collected into **one single pdf-file**) to martina.herrmann@uni-jena.de, and refer to position 254/2017. Severely disabled applicants with equal qualification and aptitude are given preferential consideration.

More **project details**: <http://www.aquadiva.uni-jena.de/Graduate+school/Open+positions-p-213.html>. For more **information on the position**, feel free to contact Dr. Martina Herrmann (martina.herrmann@uni-jena.de). For other **information**, please contact the coordinator, Maria Fabisch (maria.fabisch@uni-jena.de).