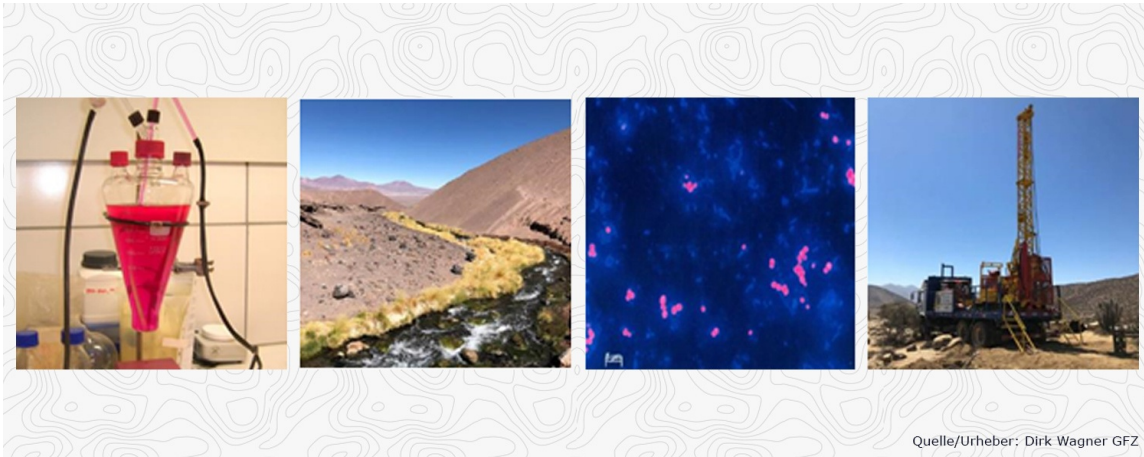


### PhD position (f\_m\_x) in Soil Microbiology



The Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences is the national centre for research into the geosphere. With around 1,650 employees (<https://www.gfz-potsdam.de/en/about-us/organisation/facts-and-figures>), we develop a sound understanding of systems and processes of the solid Earth as well as strategies and options for action to counter global change, understand natural hazards and sustainably secure energy and raw material requirements.

For section 3.6 Geomicrobiology (<https://www.gfz-potsdam.de/en/section/geomicrobiology/overview>) (department 3 (<https://www.gfz-potsdam.de/en/geochemistry>)), we are looking for a:

## PhD position (f\_m\_x) in Soil Microbiology

### Reference Number 9988

The new project is funded by the DFG Priority Programme Antarctic Research (<https://www.spp-antarktischforschung.uni-rostock.de/en/>) and will be done together with the University of Tübingen where another PhD position will be hosted. Both positions will closely work together encompassing the fields of Microbiology and Soil Science regarding initial soil development.

In Antarctica, soil development begins immediately after the retreat of ice and snow. Our previous research has shown that the terrestrial microbiome reacts quickly to environmental changes, and distinct soil structures and aggregates form. We assume that soil formation processes are initially spatially segmented, with microhabitats developing inside and on aggregate surfaces. To better understand the interactions between microorganisms, soil formation, and microhabitats, we aim to analyze aggregate interiors and exteriors separately. By using fluorescence labeling and flow cytometry, we can examine these spheres in more detail, expanding our knowledge of how microorganisms initiate and promote soil formation in cold deserts like Antarctica.

You will become an integral part of the Geomicrobiology Section and closely collaborate with other team members and with the colleagues from Tübingen University. You will be registered as PhD student at the University of Potsdam.

### Your responsibilities:

- Conduct innovative laboratory experiments using soil samples from Antarctica for soil simulation experiments to investigate microbial-driven soil formation
- Establish the laboratory experiment to simulate soil formation under global change conditions in Antarctica
- Develop a cell separation technique in soil aggregates based on fluorescence labeling in combination with flow cytometry
- Analyze microbial communities and their function at the soil aggregate scale using multi-omics techniques
- Publish research results in international peer-reviewed journals and present at scientific conferences

### Your qualifications:

- MSc degree (or equivalent) in Microbial Ecology or related fields

- Strong background in microbiology and molecular biology
- Documented experience with DNA/RNA-based methods in soil ecosystems and possibly flow cytometry
- Basic understanding of geo-bio interactions in soils
- Capacity for interdisciplinary and international teamwork with excellent communication skills
- Experience with scientific writing
- Proficiency in spoken and written English

#### What we offer:

- Ambitious and varied tasks in a dynamic and international research environment
- State-of-the-art equipment
- Public service benefits
- Extensive training opportunities
- Professional career advice offered by our in-house Career-Centre
- Flexible working hours and conditions
- Support with finding a good work-life balance offered by benefit@work
- Institute day-care centre on site
- Working at the Albert Einstein science park on the Telegrafenberg in Potsdam
- Work place within walking distance of Potsdam main train station, or just a short ride on the shuttle bus

**Start date:** 1<sup>st</sup> February 2025

**Fixed-term:** 36 months

**Salary:** The position is classed as salary group 13 according to “TVöD Bund (Tarifgebiet Ost)”. The salary group is determined on the basis of the Collective Wage Agreement and the respective personal qualifications.

**Working hours:** Part-time 67%

**Place of work:** Potsdam

#### Have we piqued your interest?

If so, we look forward to receiving your application by **1<sup>st</sup> December 2024**. Please use our online application form only.

Diversity and equal opportunities are integral components of our human resources policy. The GFZ actively promotes diversity and explicitly welcomes applications from all qualified individuals, regardless of ethnic and social origin, nationality, gender, sexual orientation and identity, religion/belief, age and physical characteristics. Anyone who has been recognised as severely disabled, will be given preferential consideration in the event of equal suitability and qualification in accordance with the provisions of the German Social Code IX. If you have any questions, please contact our Representative Body for Employees with Disabilities at sbv[at]gfz-potsdam.de (mailto:sbv@gfz-potsdam.de), who will be happy to assist you in the further application process. In case of further queries regarding gender equality, please do not hesitate to contact our Equal Opportunities Officer at gba[at]gfz-potsdam.de (mailto:gba@gfz-potsdam.de).

Your personal data will be processed for the purpose of conducting the selection procedure on the basis of Art. 6 para. 1 b, Art. 88 GDPR in conjunction with Art. 26 of the Data Protection Act for the State of Brandenburg. After completion of the procedure, application documents will be deleted in compliance with data protection regulations.

In case of any further queries relating to the field of activity, please contact Prof. Dr. Dirk Wagner either via email at dirk.wagner@gfz-potsdam.de (mailto:dirk.wagner@gfz-potsdam.de) or phone +49 (0)331-6264 28800. If you have any general questions about the application process, please contact our recruiting team at our phone number +49 (0) 331-6264-28787.