

PhD Position in Microbial Ecology – Methane-Oxidizing Bacteria

EPFL, Lausanne, Switzerland

The Microbial Physiology and Resource Biorecovery Laboratory (MICROBE), led by Dr. Wenyu Gu at the Swiss Federal Institute of Technology Lausanne (EPFL), invites applications for a fully funded PhD position in Microbial Ecology.

We are looking for a highly motivated and talented PhD student to join our interdisciplinary team at the Institute of Environmental Engineering. The successful candidate will conduct cutting-edge research in applied and environmental microbiology, with a focus on the ecology of methane-oxidizing bacteria. These microbes play a central role in the global carbon cycle and have the potential to mitigate greenhouse gas emissions by oxidizing methane, even at atmospheric concentrations.

The research will investigate how interactions between methane-oxidizing bacteria and other microbial community members shape ecosystem function, and the role of metal competition in regulating microbial activity and methane oxidation. The project involves a combination of approaches, including high-throughput sequencing and bioinformatics, isolation, cultivation, and physiological characterization of gas-utilizing bacteria, community-level activity and function analyses.

This project is funded by the Swiss National Science Foundation (SNSF). The PhD candidate will collaborate closely with other PhD students and postdoctoral researchers, both within the group and across EPFL's international research network.

Your Profile

- Master's degree in environmental engineering, microbiology, chemical engineering, or a related discipline.
- Demonstrated research experience (publications, thesis, or equivalent).
- Prior experience in bioinformatics is an advantage.
- Strong communication and academic writing skills in English.
- Ability to work effectively in a collaborative, international environment.

We Offer

- Mentoring and support for professional and personal development.
- A stimulating, multicultural research environment with access to state-of-the-art facilities.
- Opportunities for interdisciplinary collaboration and international networking.
- A world-class training environment within the ETH Domain.

Employment Conditions

- **Start date:** Flexible.
- **Contract duration:** 1-year renewable, up to 4 years.

To apply, please follow the instruction and access to this post:

<https://careers.epfl.ch/job/Lausanne-PhD-Position-in-Microbial-Ecology-of-Methane-Oxidizing-Bacteria/1163550755/>

Please prepare your application containing:

- A motivation Letter
- Your detailed CV
- Contact information
- The names and contact information of 3 references willing to write a recommendation letters.