

Eawag, the Swiss Federal Institute of Aquatic Science and Technology, is an internationally networked aquatic research institute within the ETH Domain (Swiss Federal Institutes of Technology). Eawag conducts research, education and expert consulting to achieve the dual goals of meeting direct human needs for water and maintaining the function and integrity of aquatic ecosystems.

The Department of Environmental Chemistry is offering a position for a

## PhD student in Environmental (Bio)Chemistry

**The position** is part of a project funded by the Swiss National Science Foundation (SNF) aiming to assess the dynamics of microbial metabolism in soil and water upon human-induced environmental change. Questions on ecosystem functioning will be approached through a wholistic evaluation of microbial phosphorus metabolism using stable isotope-based evidence as proxy for the study of phosphoryl transfer reactions in aerobic heterotrophic bacteria.

This study will be carried out in an interdisciplinary team working at the intersection of environmental system sciences and biochemistry.

This work will focus on the elucidation of intracellular phosphorus metabolism through stable isotope analysis of phosphate and organophosphorus compounds. The student will isolate, purify, and characterize the relevant enzymes and study the expression of oxygen isotope effects in metabolic reactions responsible for consumption, transfer, and release of phosphate during microbial activity. The outcome of this work will feed into quantitative metabolic models for the interpretation of the observable isotopic fingerprints of phosphate.

**We seek** applications from individuals with a strong interest in developing expertise in biochemistry and molecular/chemical biology related to environmental phenomena of phosphorus cycling. Potential candidates hold a MSc degree in a relevant discipline of chemical, biological, or environmental sciences. We expect excellent writing and communication skills in English. Creativity and independent thinking as well as the ability to work in teams will be critical requirements for joining this project. The successful applicant is expected to start this position between September and October 2022. The position will be limited to four years.

**The successful applicant** will join the Environmental Chemistry Department at Eawag, [www.eawag.ch/en/department/uchem/organisation/hofstetter/](http://www.eawag.ch/en/department/uchem/organisation/hofstetter/) and be part of a collaborative project carried out the Group of Plant Nutrition at ETH Zürich, <https://plantnutrition.ethz.ch>.

This position also comes with the opportunity to work with researchers from ETH Zürich and the University of Bern in an interdisciplinary working environment and in state-of-the-art laboratories. The successful candidate will be enrolled as PhD student at ETH Zürich and is expected to fulfil its admission requirements, <https://ethz.ch/en/doctorate/registration-admission.html>.

**Eawag is** a modern employer and offers an excellent working environment where staff can contribute their strengths, experience and ways of thinking. We promote gender equality and are committed to staff diversity and inclusion. The compatibility of career and family is of central importance to us.

For more information about Eawag and our work conditions please consult [www.eawag.ch](http://www.eawag.ch) and [www.eawag.ch/en/aboutus/working/employment](http://www.eawag.ch/en/aboutus/working/employment).

**Applications should include** (i) a cover letter with a concise statement about your previous education and research experience, your specific motivation to work on this project, and your vision for your professional development (1 page maximum), (ii) a curriculum vitae, copies of your academic qualifications, and names and contact information of 2-3 academic references. Please do not include letters with the application.

Any questions about the position can be directed to [Dr. Thomas Hofstetter](#) and [Dr Federica Tamburini](#).

Screening of applicants will begin immediately, and **the closing date is 15 July 2022**.

We look forward to receiving your application. Please send it through this webpage, any other way of applying will not be considered. A click on the button below will take you directly to the application form.

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