The Environmental Microbiology Laboratory (EML) in the School of Architecture, Civil and Environmental Engineering, EPFL is seeking

**a Ph.D. student**

to investigate iron reduction by *Clostridium acetobutylicum*

**Requirements:**

- educational background in microbiology
- molecular biology skills is a must
- a strong chemistry background is an asset
- computer skills: Word, Excel, Powerpoint
- language: fluent English
- self-motivation, scientific curiosity, critical thinking and rigor in experiment work
- good communication skills and ability to work as part of an international team
- enthusiasm, willingness to learn, good organizational skills

**Work description:**
The project deals with *Clostridium acetobutylicum*, a Gram-positive bacterium that is capable of reducing Fe(III). There is very little known about the mechanism of iron reduction by this and other Gram-positive organisms. The goal of the project is to identify specific proteins (and corresponding genes) involved in this process and to propose an underlying mechanism.

**Tasks:**

- perform anaerobic bacterial cultivation
- identify the general mechanism of Fe(III) reduction in the model organism
- carry out experiments to identify proteins involved in Fe(III) reduction
- knockout genes encoding for specific proteins identified above
- participate in general laboratory tasks
- take classes required by the doctoral school
- perform first-class scientific research
- write publications
- attend and present at international conferences
- participate in weekly group meetings

**We are offering:**

- an opportunity to develop a scientific career in environmental microbiology
- an opportunity to learn high-end techniques and approaches
- the opportunity to build a scientific network in the field of metal reduction research
- excellent educational conditions and competitive remuneration
- a multi-cultural and stimulating scientific environment

**Application deadline:** January 1st, 2015

for further information, please contact Professor Rizlan Bernier-Latmani via e-mail: rizlan.bernier-latmani@epfl.ch

Applicants should submit a letter of interest, a curriculum vitae, university diplomas, working certificates and letters of reference to Prof. Bernier-Latmani by email.