The Trace Element Speciation and Environmental Chemistry Group (TrES Group), and the Soil Science Group of the Institute of Geography, University of Bern, Switzerland, are inviting applications for:

**Two Ph.D. positions in Environmental Biogeochemistry/Soil Science to study arsenic uptake and speciation at the soil/plant and plant/mammalian interface.**

**Responsibilities and background**

The overall aim of the two PhDs is to investigate the behavior and the speciation of arsenic in soils, plants and biota with a focus on the interfaces between these compartments. The work includes sampling, conducting experiments and the use and development of analytical methods (e.g. HPLC-ICP-MS; LC-MS). The two PhD projects will have a focus on:

PhD 1: *Cascading effects of the speciation-dependent toxicity of arsenic.*

PhD 2: *The role of microbiota at the soil/plant and plant/human interface on arsenic uptake and speciation.*

The PhD positions will be embedded into the new research consortium "One Health: Cascading and Microbiome-Dependent Effects on Multitrophic Health” consisting of ten research groups of the University of Bern which aim to interdisciplinary answer questions about health effects of environmental pollutants.

**Requirements**

The successful candidate will have a Master in Geography, Soil Science, Geology, Chemistry, Environmental Sciences or similar disciplines. Experience in soil and plant sampling and in using analytical instruments is required, as well as basic knowledge in Chemistry. Specific experience with analytical method development, HPLC, ICP-MS, ESI-MS and plant & soil incubations are an asset. The successful candidate will have good English writing and communication skills.

**Further information**

The salary is according to SNSF and University of Bern guidelines, with funding guaranteed for 3 years starting in March 2018 or a soon as possible.

Send a single PDF including a letter of motivation mentioning “Group of Soil Science / Trace Element Speciation and Environmental Chemistry”, a complete CV and the names and addresses of two referees to arsenic.phd.unibe@gmail.com until 31st January 2018. Selected applicants will be interviewed in person or by skype. The positions are available until filled.