

**ter:labs**

TERRESTRIAL ECOSYSTEM RESEARCH

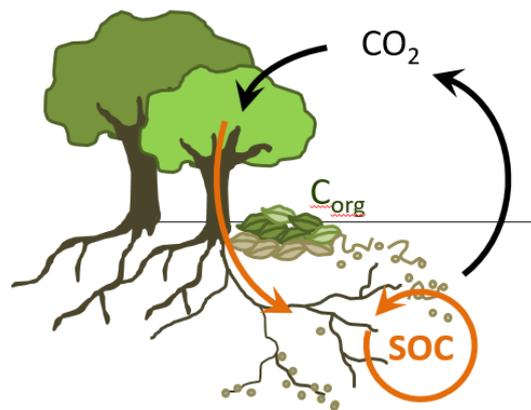


**universität  
wien**

A 3.5-Year PhD Position in Microbial Ecology / Ecosystem Ecology /  
Isotope Biogeochemistry

is available at the Division of Terrestrial Ecosystem Research (TER),  
Department of Microbiology & Ecosystem Science, University of Vienna.

## Soil microbial carbon metabolism, microbial turnover and necromass formation



TER, the Division of Terrestrial Ecosystem Research, Department of Microbiology and Ecosystem Science, is looking for a highly motivated PhD student interested to work at the interface between soil microbial ecology, biogeochemistry and metabolomics.

The 3.5 yr PhD thesis will focus on central aspects and controls of soil organic carbon (SOC) sequestration, i.e. (i) how labile organic matter inputs in soils (root exudates) are metabolized by the microbial community, (ii) how this impacts the decomposition of soil organic matter (rhizosphere priming effect), and (iii) how this influences microbial turnover and necromass production and thereby soil organic matter sequestration. Isotope tracing will be applied to study the microbial metabolism of exudates and necromass formation. The PhD candidate will therefore work at the interface between soil/microbial ecology and analytical chemistry, applying high end methods of soil organic matter speciation and isotope measurements (fluxomics).

**Job Description:** Your responsibility will be to write a PhD thesis (scientific papers) and the participation in research projects. Additionally, it is expected that you assist in the supervision of students and the maintenance of analytical instrumentation at the department. Teaching to the extent of the collective agreement provisions is required.

**Profile:** Master or diploma degree in biology/ecology, environmental sciences, or analytical chemistry; expertise in at least two of the fields of microbial physiology, soil biogeochemistry, soil microbial ecology, and ecosystem research; hands-on experience in analytical techniques such as

liquid/gas chromatography and/or mass spectrometry; good written and oral communication skills  
Ideal candidates should have a solid background in ecosystem research and in analytical chemistry.  
Applicants must have the ability to work in an international team, have good communication skills  
and should be highly motivated and committed to pursuing interdisciplinary research. Excellent  
English in speaking and writing is mandatory.

We are committed to conduct excellent research in a motivating and intellectually stimulating  
environment, and to train our students to become independent and internationally competitive  
scientists who enjoy research and contribute to society as conscientious citizens.

Documents:

- Motivation letter (1 page maximum)
- CV (including scientific publication and presentation activities, if any)
- Contact details of two possible references

Applications including a letter of motivation (German or English) should be submitted to  
checo@univie.ac.at

For further information please contact Christof Oberwalder, 43-1-4277-25761,  
or the principal investigators,  
Wolfgang Wanek (wolfgang.wanek@univie.ac.at) and  
Christina Kaiser (christina.kaiser@univie.ac.at).