

# Curriculum Vitae

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Name: Eva Oburger  
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Address: Division of Terrestrial Ecosystem Science, Department of Microbiology and Ecosystem Science, University of Vienna, Althanstrasse 14, 1090 Vienna, Austria  
Place and date of birth: Vienna, Austria, 18.01.1983  
Children: 1 (born 28.12.2014)

## Research Focus

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My research focuses on: Fate and function of root exudates. Development of sampling techniques to collect root exudates from soil grown plants. Development of novel analytical approaches for root exudate analysis. Biogeochemical processes in the rhizosphere: Solubilisation of macro- and micronutrients as well as metal speciation. Soil-plant-microbe interactions. Bioavailability of pollutants (incl. risk assessment) in soil. Development and application of growth and imaging techniques (e.g. DGT, planar optodes) for *in-situ* visualization of rhizosphere processes.

## Education

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2010 PhD, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria, supervisor: Prof Walter Wenzel  
2007 Diplom Ingenieur (equiv. to Master) in Soil Ecology and Soil Management, University of Natural Resources and Life Sciences (BOKU)

## Current Position:

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2016- Senior Post Doc position and project leader at the Division of Terrestrial Ecosystem Research, University of Vienna

## Previous Positions:

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2014-2016 Senior Post Doc position and project leader at the Institute of Soil Research, Rhizosphere Ecology and Biogeochemistry Group, BOKU Vienna  
2011-2014 Post Doc position at the Institute of Soil Research, Rhizosphere Ecology and Biogeochemistry Group, BOKU Vienna  
2003-2006 Summer Research Assistant at BOKU Vienna, Institute of Soil Research, Rhizosphere Ecology and Biogeochemistry Group

## Research visits abroad:

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- 2011: University of South Australia, Adelaide, Australia, Prof Enzo Lombi (isotopically exchangeable Fe pools in soil (E-values))
- 2008: University of Riverside, California, US, Prof Chris Amrhein and Dr Alex Dellantonio (Behaviour of W in soils at different redox states)
- 2006-2007, 2008, 2010, 2012: SENR, University of Wales, Bangor, UK, Prof Davey Jones (Fate and function of organic acids in soil, peptide uptake and mineralization at INCREASE sites)

## Teaching activities:

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2008- Lecturer in Soil Science (3 ECTS) incl. field trips  
2010- Ecology and management of the rhizosphere in ecological engineering (3 ECTS)  
2014 Interdisciplinary project work: soil sciences (6 ECTS)  
2004-2008 Student teaching Assistant in field and laboratory courses (Soil Science)

### **Supervision of Graduate Students:**

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**2011-2016:** 1 Bachelor, 5 Master's students, co-supervision: 3 PhD students

**2017-:** 1 Master's students, co-supervision: 1 PhD students

### **Career break:**

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Dec 2014- July 2015     Maternity leave

### **National and international collaborations**

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- University of Lancaster, UK: Hao Zhang, William Davison, Paul Williams; University of Southern Denmark, Denmark: Morten Larsen, Ronnie Glud (2-D imaging of rhizosphere processes using DGT and planar optodes)
- INRA, Montpellier, France: Philippe Hinsinger, Mathieu Bravin (Validation and ISO standardization of a plant based biotest to assess the bioavailability of trace elements to plants)
- TU Graz/FHP Industries/BIOS/BIOENERGY 2020+/Steirische Landwirtschaftskammer, Ingwald Obernberger, Klaus Supancic, Heinrich Holzner: (Development of innovative wood ash applications in the environment)
- BOKU, Vienna, Franz Zehetner: Stefanie Kloss (biochar application to temperate soils)
- Lincoln University, New Zealand: Brett Robinson, Niklas Lehto & University of Bolzano, Italy: Fabio Valentinuzia, Tanja Mimmo, Stefano Cesco (chemical imaging using DGTs)
- Estación Experimental de Aula Dei (CSIC), Zaragoza, Spain: Ana Álvarez-Fernández (metal homeostasis and fertilization in plants)
- TU Vienna, Christian Stanetty, University of Vienna, Stephan Krämer, Walter Schenkevelt, BOKU, Vienna, Stephan Hann (The biogeochemistry of phytosiderophores in rhizosphere soil)
- AIT/University of Vienna, Andrea Watzinger, Wolfgang Wanek: (Tracing <sup>13</sup>C DMA in soil)
- INRA, Montpellier France: Philippe Hinsinger, Gabrielle Daudin (chemical imaging of O<sub>2</sub> and pH in the rhizosphere using planar optodes)
- IPK Gatersleben, Germany, Nicolaus von Wirén, ISAS Dortmund, Germany, Günter Weber, University of Vienna, Austria, Stephan Krämer (Interplay of chelating and reducing root exudates in plant iron acquisition)

### **Awards and scholarships**

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- 2002, 2003, 2005 BOKU merit scholarship
- 2006 ASAG - Scholarship
- 2008 Marshall Plan Scholarship

### **Other relevant activities**

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- Certified radiation protection officer (unsealed sources)
- Memberships: Austrian Soil Science Society (ÖGB), Federation of European Societies of Plant Biology
- Reviewer of Scientific Journals: *Nature-scientific reports*, *Environmental and Experimental Botany*, *Plant and Soil*, *Soil Biology and Biochemistry*, *Science of the Total Environment*, etc.
- Associate editor with *Rhizosphere*

### **Selected invited conference presentations**

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I have been an invited speaker at 17 different national and international peer-reviewed conferences, including two invited keynotes. Listed below is a selection of these invitations.

**Oburger, E.**, Vergara Cid, C., Preiner, J., Hue, J., Hann, S., Wanek, W., Richter, A. ICOBTE, Zurich, Switzerland (2017): *Bioavailability, speciation, and phytotoxicity of tungsten (W) in soil affecting growth and molybdoenzyme activity of nodulated soybean (Glycine max)*

- Oburger, E.**, Gruber, B., Schindlegger, Y., Schenkeveld, W.D.C., Hann, S., Kraemer, S.M., Wenzel W.W., Puschenreiter, M., Rhizosphere 4, Maastricht, Netherlands (2015): *Release and fate of phytosiderophores in the rhizosphere of wheat (invited keynote)*
- Oburger, E.**, Gruber, B., Schindlegger, Y., Schenkeveld, W.D.C., Hann, S., Kraemer, S.M., Puschenreiter, M., ICOBTE, Athens, Georgia, United States (2013): *Solubilisation of trace metals by phytosiderophores in the rhizosphere of wheat*
- Oburger E.**, Dell'mour M., Hann S., Wieshammer G., Puschenreiter M., Wenzel W., EUROSOIL, Bari, Italy (2012): *Comparison of different root exudate sampling techniques including a novel approach using rhizoboxes combined with an in-situ root exudate collecting tool*
- Oburger E.**, Jones D.L., Wenzel W.W., Rhizosphere 3, Perth, Australia (2011): *Phosphate solubilization mechanisms by different organic acid anions in soil and the effect of concurrent acidification and soil P content.*

#### **Other invited talks**

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- Oburger, E.** Tsukuba, Japan (2013): *Root exudates affecting P phytoavailability in soils - biogeochemical mechanisms and experimental approaches*
- Oburger, E. et al.** Goslar, Germany (2015): *Release and fate of phytosiderophores in the rhizosphere of wheat.*
- Oburger, E.** Halle, Germany (2016): *Unraveling root exudation dynamics depending on methodological and environmental conditions*
- Oburger, E.** Vienna, Austria (2017): *Sampling root exudates – Mission Impossible?*
- Oburger, E et al.**, Bonn, Germany (2017) *Release, fate & function of phytosiderophores in the rhizosphere of wheat.*