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EDUCATION

University of Colorado Boulder, Boulder, CO. 2001 – 2008. Doctoral degree awarded from the Department of Ecology & Evolutionary Biology. Dissertation title: Effects of alpine plant species on soil carbon and nitrogen dynamics and neighboring plant growth.

Graduate Teacher Program, University of Colorado Boulder. Graduate teacher certificate awarded Spring 2008.

Pomona College, Claremont, CA. 1994 – 1998. Bachelor of Arts in Chemistry, *cum laude*.

Jesus College, University of Cambridge, Cambridge, UK. 1997. Studied Physical Chemistry and Statistical Mechanics.

EXPERIENCE

Institute of Arctic and Alpine Research, University of Colorado Boulder. (2008 – present) *Post-doctoral research associate* in Dr. William Bowman's laboratory. Currently leading a project investigating the effects of plant roots on below-ground ecosystem function and neighboring plant growth.

Cooperative Institute for Research in Environmental Sciences, University of Colorado Boulder. (2008) *Post-doctoral research associate* in Dr. Noah Fierer's laboratory. Collaborated on a project investigating controls on decomposition across an elevational gradient in Peru.

University of Colorado Boulder. (2001-2008) *Graduate Research Assistant* in Dr. William Bowman's laboratory in the Department of Ecology & Evolutionary Biology. Developed experiments employing organic chemistry, greenhouse, and field ecology techniques to investigate single species and diverse plant mixture effects on carbon and nitrogen cycling. Projects involved considerable collaboration to develop chemical extraction, fractionation, and analytical techniques for plant tissues and soils. Results presented at national ecology conferences. Also responsible for supervision of undergraduate research assistants.

University of Colorado Boulder. (2001-2007) *Graduate Teaching Assistant* in the Department of Ecology & Evolutionary Biology. Taught laboratory portion of General Biology, Environmental Biology, and Microbiology. Developed statistical curriculum and worked intensively with students in the application of the scientific method to independent student projects. Conceived and developed web-based supplemental course material.

University of Colorado Boulder, (2007) *Guest Lecturer*, for Soil Ecology course taught by Dr. Noah Fierer.

London School of Hygiene and Tropical Medicine, London, UK. (1999-2001) *Professional Research Assistant* within the Immunology Unit. Designed and conducted original research investigating the effects of Category 3 intracellular pathogens on host immune function. Results were presented at national (UK) and international immunology conferences. Collaborated with other researchers to develop and apply confocal microscopy techniques to multiple models of parasitic infection and immune response. Instructed MSc students in the principles and applications of confocal microscopy.

EXPERIENCE continued

University College London, London, UK. (1998-1999) *Laboratory Assistant*, Department of Anatomy and Physiology. Wrote an original piece of software using LabVIEW capable of acquiring and analyzing data for experiments on human muscle contraction.

National Institutes of Health Fellowships, Hamilton, MT. (1996-1997, summer only) *Student Research Fellow* in the Laboratory of Intracellular Parasites (1996) and the Laboratory of Microbial Structure and Function (1997). Researched host-parasite interactions using two different parasite models: *Neisseria gonorrhoeae* and *Chlamydia trachomatis*.

Vista Elementary School, Claremont, CA. (1996) *After School Science Program Volunteer*. Developed creative, science-related projects for urban youth through a Claremont Colleges outreach program.

Portland State University and Port of Portland, Portland, OR. (1993-1994) *Biology Field Technician*. Performed ornithological and vertebrate community surveys in the field in order to assess the success of the Port of Portland's Government Island Wetland Mitigation Project.

PUBLICATIONS

Meier, C.L. and W.D. Bowman. 2008. Links between plant litter chemistry, species diversity, and below-ground ecosystem function. Proceedings of the National Academy of Sciences U.S.A. *In review*.

Meier, C.L., K.N. Suding, and W.D. Bowman. 2008. Carbon flux from plants to soil: Roots are a below-ground source of phenolic secondary compounds in an alpine ecosystem. *Journal of Ecology* 96: 421-430.

Meier, C.L. and W.D. Bowman. 2008. Phenolic-rich leaf carbon fractions differentially influence microbial respiration and plant growth. *Oecologia*. *In press*.

Bowman, W.D., H. Steltzer, T.N. Rosenstiel, C.C. Cleveland, and C.L. Meier. 2004. Litter effects of two co-occurring alpine species on plant growth, microbial activity and immobilization of nitrogen. *Oikos* 104: 336-344.

Meier, C.L., M. Svennson, and P.M. Kaye. 2003. *Leishmania*-induced inhibition of macrophage antigen presentation analyzed at the single-cell level. *The Journal of Immunology* 171: 6706-6713.

PRESENTATIONS

Meier, C.L., M. Maxa, and W.D. Bowman. 2007. Predicting litter diversity effects on short-term C and N turnover. Soil Ecology Society meeting, Moab, UT. Poster presentation.

Meier, C.L. and W.D. Bowman. 2007. Effects of low molecular weight phenolics and tannins on microbial activity and plant growth. NSF post-ASM Polyphenolics workshop, Corvallis, OR. Oral presentation.

Meier, C.L. and W.D. Bowman. 2006. Mechanisms of carbon flux from plants to soil: Implications for a nutrient availability feedback loop. NSF LTER All Scientists Meeting, Estes Park, CO. Poster presentation.

Meier, C.L. and W.D. Bowman. 2006. Phenolics, soil microbes, and competitor performance: The importance of both low molecular weight and tannin phenolics. Ecological Society of America meeting, Memphis, TN. Oral presentation.

Meier, C.L. and W.D. Bowman. 2005. Phenolic effects on competitor growth. Guild of Rocky Mountain Ecologists and Evolutionary Biologists meeting, University of Colorado Mountain Research Station, Nederland, CO. Oral presentation.

Meier, C.L. and W.D. Bowman. 2004. Phenolic rhizodeposition and overwinter litter: Significant sources of carbon for microbes during the growing season? Ecological Society of America meeting, Portland, OR. Poster presentation.

Meier, C.L. and P.M. Kaye. 2001. Single cell analysis of macrophage T-cell conjugates reveals a novel mechanism of effector T-cell inhibition. Woodshole Immunology Conference, Marine Biological Laboratories, Woodshole, MA. Oral presentation.

Meier, C.L., M. García, and P.M. Kaye. 1999. The impact of intracellular pathogens on cytoskeletal redistribution during cognate APC-T cell interactions. British Society for Immunology meeting, Harrogate, UK. Oral presentation.

GRANTS

- USDA Soil Processes program 2 year post-doctoral fellowship; 2009-2010, \$125000
- Dept. Ecology & Evolutionary Biology Graduate Student Research Grants; 2002-2006, totalling \$5800
- John W. Marr Ecology Fellowship Grants; 2002-2006, totalling \$3900
- Dept. Ecology & Evolutionary Biology One-Semester Graduate Fellowship; Fall 2005.

HONORS AND AWARDS

- Dept. Ecology & Evolutionary Biology Teaching Excellence Award; Spring 2007.
- University of Colorado Graduate Teaching Excellence Award; Spring 2006.
- NSF pre-doctoral fellowship competition, Honorable Mention, 2001.
- Pomona College Scholar, 1997/98, 1996/97, 1994/95

ACTIVITIES

- NSF Research Experiences for Undergraduates Program in Behavior, Ecology, and Evolution (2006-2008). Mentored undergraduate research projects through the NSF REU program at the University of Colorado Mountain Research Station, Nederland, CO.
- Website design for University of Colorado NSF REU program (available at <http://www.colorado.edu/eeb/EEBprojects/reu/>)
- Niwot Ridge LTER Graduate student site representative (2004-2007).
- NSF LTER Graduate Student Symposium (2005). Led a workshop entitled: "Plant controls on soil nutrient dynamics". Blue River, OR.