

Under the challenging influence of global change the Helmholtz Centre for Environmental Research – UFZ performs significant scientific work to safeguard the basic requirements of life and the opportunities for individual development also for future generations. In this way the UFZ contributes towards a sustainable development.

The Department of Soil Ecology has a vacancy for a

PhD Student (m/f) in Soil Mycology

Start date: April 1, 2008 (temporary, 3 years)

Topic: Diversity of fungal peroxidases

The student will join project **FuPerS (Fungal Peroxidases in Soils)** within the DFG-funded **German Biodiversity Exploratories** (www.biodiversity-exploratories.de). Various classes of peroxidases are important in the degradation of lignocellulose, and incidentally of xenobiotics. Gene, transcript, and protein diversity will be addressed in sites of differing land use regimes in the three exploratories Hainich, Schorfheide-Chorin and Schwäbische Alb. Soil metagenomic libraries prepared within related projects will be screened for presence of litter/wood-decomposing peroxidase genes. RNA extraction from the same soils will be optimized. cDNA libraries will be established and screened. The student will integrate data from a second, proteomic group (IHI Zittau) in the same project, which investigates the diversity on the enzymatic level as well as litter/soil and process parameters. Fungi from the sites will be identified, and cultures established. Specimens and cultures will also be screened for peroxidases. Phospholipid fatty acid (PLFA) analyses complement the research.

Through the collaboration within the German Biodiversity Exploratories contributing projects, the satellite proteomics project at IHI Zittau, and with colleagues of other Helmholtz centers the student will interact with different specialist scientists. He/she will be supported by a group of scientists at the UFZ Soil Ecology Department. Coursework for the doctorate degree and enrollment are at University of Leipzig and are supervised by Prof. Francois. Buscot, Head of the UFZ Soil Ecology Department. The recently established UFZ Graduate School HIGRADE will allow additional training (<http://www.ufz.de/index.php?en=11429>).

Requirements:

Applicants should have a German Diplom or Masters or equivalent in biology, molecular genetics, microbiology, ecology, or biogeochemistry. They should be fluent in English and German. The ideal candidate has a background in a combination of molecular ecology and phylogenetics, soil microbiology and fungal systematics. Experience with metagenomics, statistics and bioinformatics is a plus.

Fieldwork and laboratory work are important components of this research; a driver's license is preferred.

The place of work is Halle/Saale, Sachsen-Anhalt, Germany.

Salary will be according to the appropriate civil service level 13/2 (TVöD-O).

To apply, please send a complete CV with publication list, your contact information, names and contact information of 2-3 referees, and a one-page cover letter stating your qualifications, background and reasons for applying. Or follow German application traditions.

Further details can be requested from Dr. Dirk Krüger (Tel: +49-345-558-5425; dirk.krueger@ufz.de).

The UFZ is an equal opportunity employer. To increase the share of female employees at UFZ, women are explicitly encouraged to apply. Physically handicapped persons will be favored if they are equally qualified.

Please send your application until **29.02.2008** under **code 06/2008** to the Personnel department of the Helmholtz Centre for Environmental Research, PO Box 500136, D-04318 Leipzig, Germany, or by email to martin.schroeder@ufz.de.