



PhD Program between the Freie Universität Berlin (FUB) and the China Scholarship Council (CSC)

Open PhD position at FUB for CSC scholarship candidates 2017

Please note: the PhD position is only offered to Chinese PhD candidates for application in the framework of the FUB-CSC PhD Program.

<u>Department/Institute:</u>	Department of Biology, Chemistry, Pharmacy/Institute of Biology
<u>Subject area:</u>	Microbial Ecology, Global Change, Soil, Evolution, Fungi
<u>Name of Supervisor:</u>	Prof. Dr. Matthias C. RILLIG (Mr.)
<u>Number of open PhD positions:</u>	2
<u>Type of the PhD Study:</u>	Full-time only
<u>Project title:</u>	Gradual and abrupt environmental change: physiology, community and evolution

PhD Project description:

A major goal in ecology is to predict how environmental changes, including drivers of global change, affect communities and ecosystem functioning, with society demanding answers to these pressing questions. A key limitation of virtually all experimental approaches addressing such questions is that treatments are delivered abruptly, while many changes occurring in nature are gradual. In these doctoral student projects, the opportunity is given to interact with a group of researchers studying global change as part of an ERC Advanced Grant awarded to M. Rillig. In this larger project, we comprehensively study consequences of environmental change when delivered abruptly vs. gradually. In order to understand and model effects of gradual vs. abrupt changes, we need to simultaneously consider physiological effects (e.g. acclimation), evolutionary changes (e.g. adaptation) and changes in community composition and functioning. Even though changes at these levels likely interact, there is no study in which physiology, evolutionary changes and community shifts have been studied in response to a changing environmental factor. This research program thus enters uncharted territory of empirical environmental research, to which students can contribute with their own focused questions centering on one level or more of responses (e.g., physiology or communities). In terms of organisms, our work centers on soil fungi, key players in terrestrial ecosystems, and candidates with an interest in fungi are preferred. However, students interested primarily in modeling and/ or data synthesis are also welcome to apply.

Language requirements:

Language in lab and for thesis is English. IELTS 6.5 or TOEFL 95 ibt.

Academic requirements:

Candidates can have a degree (MSc degree is preferred) in either of these fields: ecology, evolution, mycology, modeling and should in all cases have a strong ecology background. Very good quantitative skills are preferred. Background with soil or fungi is desired but not necessary given sufficient interest.

Information of the professor or research group leader:

The lab website is at: <http://rilliglab.wordpress.com/> This website also contains information about the ERC Advanced Grant project. Prof. Dr. Matthias C. Rillig:
http://www.bcp.fu-berlin.de/en/biologie/arbeitsgruppen/botanik/ag_rillig/index.html

Please note:

In a first step the complete application should be submitted to the Beijing Office for evaluation by January 4th, 2017. Please don't contact the professor before. He/She will get in contact with you after having received the complete application in January.