

Within the DFG funded priority programme "Rhizosphere spatiotemporal organisation – a key to rhizosphere functions – SPP 2089" we are seeking, in subject to the final approval, for a motivated PhD student. The sub-project aims at investigating the spatio-temporal development of maize gene expression patterns during early rhizosphere development in soil columns as well as during maize production in the field. Feedback loops between gene expression regulation in maize roots, the structure and function of root development, root hair formation, exudate production, plant nutrient levels, soil properties, and the rhizosphere microbiome are investigated.

PhD position (m/f)

Subject: Spatial and temporal analysis of maize root gene expression patterns as a tool to elucidate how maize interacts with the rhizosphere microbiome

Project start: 01.09.2018, working time 65 % (25,35 h / week), limited for 36 month

Your tasks:

- Isolation of RNA from maize roots
- Analysis of Illumina RNA sequencing data, also in combination with data from collaborating projects
- Preparation of samples and analysis of Biomark HD real time PCR array data
- Installation and operation of soil column and microcosm experiments at UFZ Halle
- Participation in training courses, workshops and conferences

Your profile:

We are looking for a highly motivated candidate holding a Diploma or M.Sc. in biology, bioinformatics, ecology or related sciences who is interested to integrate different fields of rhizosphere research in an interdisciplinary project. Applicants should be trained in sampling and analysis of gene expression or microbiome data, in bioinformatics or biostatistics and should have experience in conducting experiments. Practical skills with cDNA preparation, RNA sequencing and R programming are a plus. A driving license is required. We expect the motivation to work in an interdisciplinary team as well as the capability to work independently.

We offer:

- Top level interdisciplinary research at a research centre which enjoys an excellent reputation within Germany as well as internationally
- Excellent technical facilities
- Work in inter-disciplinary and multinational teams
- Excellent links to national and international research networks
- Support and optimal training courses by our graduate school (HIGRADE)
- Remuneration in accordance with the TVöD public-sector pay grade 13

Please apply for the position at:

<https://recruitingapp-5128.de.umantis.com/Vacancies/1356/Description/2>

The Helmholtz Centre for Environmental Research (UFZ) with its 1,100 employees has gained an excellent reputation as an international competence centre for environmental sciences. We are part of the largest scientific organisation in Germany, the Helmholtz association. Our mission: Our research seeks to find a balance between social development and the long-term protection of our natural resources.