The mission of the Leibniz Centre for Agricultural Landscape Research (ZALF) as a nationally and internationally active research institute is to deliver solutions for an ecologically, economically and socially sustainable agriculture – together with society. ZALF is a member of the Leibniz Association and is located in Müncheberg (approx. 35 minutes by regional train from Berlin-Lichtenberg). It also maintains a research station with further locations in Dedelow and Paulinenaue.

The Research Area 1 Landscape Functioning of ZALF (RA1) investigates the functioning of agricultural landscapes and aims at contributions to the United Nations’ Sustainability Goals (SDGs) Zero Hunger, Climate Action, and Life on Land.

We are offering in the WG Isotope Biogeochemistry and Gas Fluxes and WG Microbial Biogeochemistry of the RA1 65% positions temporarily limited for 36 months at our location in Müncheberg for

2 Doctoral Coworkers (m/f/d)

The announced positions are part of the project “CropRhizoSOM - Erosion-induced Impact on Carbon Dynamics in a Crop Rhizosphere-Microbiota-Soil Organic Matter-Continuum” funded by DFG. The tentative start of the project is Mai 2020.

CropRhizoSOM investigates a cereal-soil model system. Methods being used range from spatially resolved radioactive tracer experiments, analysis of functional dynamics of the microbiome (metagenome-based) and soil enzyme activities. Together with our collaborators from Biology Centre CAS and the University of South Bohemia (Czech Republic) the dynamics of SOM will be assessed. Principal investigators of the project are Prof. Jürgen Augustin, Dr. Rainer Remus, Dr. Stephan Wirth and Prof. Steffen Kolb.

Phd Project 1 – Plant-Soil Carbon Dynamics

Your tasks:

- Performing pot experiments (phytotrons) by radioactive tracer labeling (¹⁴C) and CO₂ gas flux measurements
- Investigation of C partitioning into shoot, roots, soil respiration, rhizodepositits and SOM stock changes
- Project-related lab work incl. modern ¹⁴C analyses
- Data analysis incl. multivariate statistics
- Presentation of results on national and international conferences
- Publication of results in peer-reviewed scientific journals

Your qualifications:

- Master of Science in the field of plant, soil or agricultural sciences
- Experiences in experimental laboratory work
- Excellent communication skills (incl. English)
- A substantial interest in science and willingness to learn new methods
- A high capability in self-management
- Very good teaming skills
- Willingness to travel in Germany and abroad

Advantageous:

- Practical experiences with plant pot experiments
- Practical experiences with radioactive tracer techniques
- Driving license
Phd Project 2 – Rhizosphere Microbiome’s Functional Dynamics

Your tasks:

- Assistance with radioactive ($^{14}$C) labeled pot experiments
- Analyses of the microbiome, incl. lab work (metagenomics, qPCR, soil enzymes, cultivation of microorganisms)
- Data analysis incl. standard multivariate statistics and further network analyses
- Presentation of results on national and international conferences
- Publication of results in peer-reviewed scientific journals

Your qualifications:

- Master of Science in the field of plant-microbe interactions, microbial ecology or agricultural sciences
- Experiences in experimental laboratory work
- Excellent communication skills (incl. English)
- A substantial interest in science and willingness to learn new methods
- A high capability in self-management
- Very good teaming skills
- Willingness to travel in Germany and abroad

Advantageous:

- Experiences with the analysis of metagenome and gene data
- Practical experiences with qPCR, DNA/RNA extraction and sequencing from soil and plants
- Driving license

We offer:

- A collegial and open-minded working atmosphere in state-of-the-art facilities
- Family-orientated work
- Possibility to achieve a doctoral degree at Humboldt University of Berlin
- Participation in national and international conferences (DBG, VAAM, EGU, ISME Meeting, miCROPe2021)
- Membership in ZALF’s graduate program (incl. benefit from skill training courses)
- Scientific and personal exchange with Czech Partners of SoWa and University of South Bohemia
- An interdisciplinary and international working environment that encourages independence and self-reliance
- Salary according to the collective agreement of the federal states (TV-L) EG13 (including special annual payment)

Women are particularly encouraged to apply. Applications from severely disabled persons with equal qualifications are favored.

Please send your application preferably by e-mail (one PDF file, max. 5 MB) with the usual documents, in particular CV, proof of qualification and certificates, stating the reference number 07-2020 until 30 March 2020 to Bewerbungen@zalf.de.

If you have any questions, please do not hesitate to contact us:
Prof. Jürgen Augustin (Phd Project 1), phone +49(0)33432/82-376, EMail: jaug@zalf.de
Prof. Steffen Kolb (Phd Project 2), phone +49(0)33432/82-282, EMail: kolb@zalf.de

For cost reasons, application documents or extensive publications can only be returned if an adequately stamped envelope is attached.

If you apply, we collect and process your personal data in accordance with Articles 5 and 6 of the EU GDPR only for the processing of your application and for purposes that result from possible future employment with the ZALF. Your data will be deleted after six months.

You can find further information at: www.zalf.de/en/ueber_uns/Pages/Datenschutzerklaerung.aspx