



Conserving - Exploring - Exploiting

The [IPK](#) is one of the world's leading international institutions in the field of plant genetics and crop science. Its research program and services contribute significantly to conserving, exploring and exploiting crop diversity. Its research goals are driven by the need to ensure an efficient and sustainable supply of food, energy and raw materials, thereby addressing a major global ecological challenge.

PhD student (f/m/d) in the field of Root Anatomy

The research group [Genetics and Physiology of Root Development](#) studies crop root anatomical and architectural traits. Research is mainly focused on cereals including barley, wheat, and maize. We aim to leverage high-throughput phenotyping to create knowledge about plant function at the physiological level and use forward genetics approaches to unravel the genetic architecture of root traits.

Our most recent project is to characterize the function and genetic control of root anatomical (specifically cortical) traits in maize to enhance plant nitrogen stress tolerance. You will closely collaborate with other researchers in the project and group, including experts in genetics and rhizosphere biology.

Your tasks:

- Root anatomical phenotyping using imaging and microscopy.
- Plant and root physiological measurements to determine the function of (interacting) root phenotypes.
- Functional-structural plant modeling to determine the benefit of root phenotypes for stress tolerance.
- Plant cultivation (maize) in the greenhouse and field
- Keep informed with the latest advancements in plant science research and contribute to scientific literature through publications and presentations.
- Engage in the dissemination of research findings through conferences, seminars, and other scientific events.

Your qualifications and skills:

- You hold a MSc in plant science, crop science, biology, or related field.
- You have experience growing, managing, and phenotyping plants in the field and greenhouse.
- You have experience using modern approaches in root phenotyping, image analysis, or simulation modeling to understand the functional roles of plant roots in agroecosystems.
- You have excellent communication skills and will to collaborate with researchers from different disciplines.
- You have proficiency in data analysis and statistical software packages.
- You have problem solving skills.

You fit to us:

- If you have a strong interest in plant physiology and root biology.
- If you have strong scientific curiosity and motivation.
- If you are able to work autonomously and in a team.

We offer you:

- the opportunity to work in a world-class research center with state-of-the-art facilities and scientists from all over the world.
- a collegial working atmosphere.
- A 3-year PhD position, starting on 01.11.2024, subject to a positive funding commitment
- a gross salary up to 65% E13 TV-L.
- Accommodation in IPK guest house (on request)

If you need further information feel free to contact **Prof. Dr. Hannah Schneider** Tel.: +49 (0) 39482 5506.

What you need to know:

For us, your qualifications and strengths count. Therefore, everyone is welcome – independent of gender, origin, age, or disability. The IPK is striving to increase the proportion of women in sectors where they are underrepresented and, therefore, explicitly encourages qualified women to apply. Our institute has been certified for Career and Family (“berufundfamilie”), and we offer family-friendly working conditions and flexible working hours. The IPK has set a goal to employ more people with disabilities. Qualified applicants with a disability will be given preference.

Your application:

We are looking forward to receiving your online-application (<http://www.ipk-gatersleben.de/en/job-offers/>) by **25.09.2024**. If you have questions or require more information, please contact **Kerstin Schweigert** (jobs@ipk-gatersleben.de). Please indicate the reference number **54/08/24** in your correspondence.

Foreign qualifications must carry out an equivalence test in Germany, which is subject to a fee. This must be presented in the event of a later hiring: <https://zab.kmk.org/en/statement-comparability>