



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,500 employees in one of Europe's biggest research centres and help us to shape change!

At the Institute of Bio- and Geosciences, Plant Sciences (IBG-2), we are researching sustainable solutions for agriculture. These require efficient nutrient uptake, which is largely determined by the root system. The root system, in particular the fine root structures, changes in space and time, but the functional lifetime of some of these structures has not yet been fully investigated. For plant physiologists and breeders, it is crucial to know which root traits have a particular influence on nutrient uptake and thus promote plant development. In the research group "Root Dynamics" (Dr. Johannes Postma and Dr. Borjana Arsova) we investigate such traits and root-soil processes at different scales.

You enjoy studying and are enthusiastic about scientific work? You would like to do your practical semester and/or your master thesis in an international and interdisciplinary research environment in plant science? Then join our team now in the identification of root traits.

Join our team to the next possible date as

Practical Semester in biology/plant science / Master Thesis / Student Assistant – nutrient uptake by fine roots

Your Job:

Fine root structures are inexpensive for plants in terms of metabolism and biomass (allocated carbon and nutrients), but at the same time they contribute a large proportion of nutrient uptake. As part of a master thesis, root traits are to be investigated under different nutrient treatments. Invasive and non-invasive phenotyping will be used for the development of new biological insights. The focus is on conducting experiments in rhizotrons or gnotobiotic EcoFAB rhizosphere boxes, microscopic examination of roots, data collection, and statistical evaluation. In addition to the experimental tasks, the work

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email.

www.fz-juelich.de

could also involve modeling if there is interest.
You can write your master thesis on the topic.

Your Profile:

- Proven hands-on experience in laboratory work (internships, courses)
- Bachelor's degree (university or university of applied sciences) in Biology, Biotechnology, Agriculture or in another relevant field
- Enrolled in a master's program at a European university or university of applied sciences
- Ability to work cleanly and precisely
- Very good organizational skills (especially in the laboratory)
- Good knowledge of plant biology and molecular biology
- Good knowledge of written and spoken English
- Highly motivated and able to work in a team

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We support you in your work with:

- A topic as part of a master thesis in which you will provide new scientific insights with social relevance.
- A very good working atmosphere in a highly motivated group "Root Dynamics" at the Institute of Plant Sciences, one of the leading institutes for plant phenotyping
- We will pay you a salary for the internship and plan the period and focus with you at an early stage
- The position is initially limited to 3-6 months
- Excellent scientific and technical infrastructure in one of the largest research institutions in Europe
- An international network of experts
- Continuous professional support

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.

Further information on diversity and equal opportunities: <https://go.fzj.de/equality>