

Position available starting 1<sup>st</sup> October, 2026.

## PhD student (m/f/d) in Molecular Plant Physiology

### About us

The Bienert Lab is part of the TUM School of Life Sciences of the Technical University of Munich located in Freising. The main objective of the research group 'Crop Physiology' is to understand the physiology of plants down to the structure and function of genes and proteins as well as relevant mechanisms, which allow optimizing agriculturally important quality and yield traits and the generation of crops, which are beneficial for the society in terms of food-security (improved plant performance and stress tolerance) and food-safety (generation of healthier food).

**We focus in particular on molecular nutrient- and water efficiency mechanisms in plants. To this aim, our group synergistically bridges classic plant nutritional research with modern molecular biology.**

#### ▪ Your tasks:

-In frame of the newly established DFG Research Unit "*Soil-plant hydraulics impacting transpiration and plant growth in response to drought*", aiming to investigate how plants maintain their hydraulic linearity even under drought stress conditions, you will identify and characterize the molecular and physiological role of plant water channeling aquaporins in the regulation of the cell-to-cell water transport pathways from roots to leaves in response to water deficits.

-You will strive for the identification of soil property-dependent anatomical, physiological, and particularly transcriptomic responses of isohydric and anisohydric maize genotypes to water limiting conditions, advancing our understanding on regulatory gene networks allowing plants to ensure hydric linearity on a short and diurnal time scale.

-You will advance the understanding on an up to date and application-oriented climate-related agriculturally relevant research topic.

-You will interdisciplinary network with other PhD students and PIs of the DFG Research Unit and visit joint meetings.

#### ▪ Your qualifications and skills:

-You have a MSc or equivalent degree in biology or any related field.

-You have a very strong interest in molecular plant physiology.

-You like to work with plants and have an advanced wet-lab experience in molecular biology & physiological approaches.

-You work precisely and reliably.

#### ▪ You fit to us:

-You are a highly-motivated researcher with the ambition and commitment to achieve scientific excellence in a world-class university with state-of-the-art facilities and scientists from all over the world.

-You want to develop your scientific skills and obtain an outstanding dissertation.

-You show a very strong team spirit and have the ability to work independently.

-You have a passion for unraveling biological mechanisms, solving scientific questions and possess a high degree of self-initiative and individual responsibility to succeed in your tasks.

#### ▪ Our offer:

-An interdisciplinary research environment at the interface of molecular biology & plant physiology.

-Pro-active participation and exchange in the highly vivid Research Unit Alliance comprising 8 project groups from different universities in Germany.

-A friendly & productive working atmosphere in a highly motivated team.

-A straightforward and personal mentoring & career development.

-A position for four years starting 01.10.2026.

-A gross salary up to E13 TV-L (65%). Salary will be determined in accordance with the German collective wage agreement in public services.

### Your application

Please send your interest and full application as a PDF to [patrick.bienert@tum.de](mailto:patrick.bienert@tum.de) or by mail to the address below latest until May 31, 2026. The application should include a cover letter, a detailed CV, a short description of research experience and interests (max. 1 page) and contact details for 1 reference. If you have questions or require more information, please directly contact Patrick Bienert:

### Contact

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### **Additional information**

The position is suitable for people with severe disabilities. Applicants with severe disabilities will be given preference if their suitability, qualifications and professional performance are otherwise essentially equal. The TUM seeks to increase the proportion of women in those areas where they are underrepresented, therefore applications from women are explicitly encouraged.

### **Data protection**

As part of your application for a position at the Technical University of Munich (TUM), you are submitting personal data. Please note our privacy policy in accordance with Art. 13 of the General Data Protection Regulation (DSGVO) regarding the collection and processing of personal data as part of your application: <https://portal.my-tum.de/kompass/datenschutz/Bewerbung/>. By submitting your application, you confirm that you have read and understood TUM's privacy policy.