

Postdoctoral Position in Plant Stress and Developmental Signaling

A **two-year postdoctoral position** (with the possibility of extension) is available in the laboratory of Jörg Kudla at the Institute of Plant Biology and Biotechnology, University of Münster, Germany.

The successful candidate will use **state-of-the-art technologies** to explore the interface of plant **stress signaling and developmental plasticity**. Research will employ the model systems *Arabidopsis thaliana* and *Oryza sativa*. The project integrates cutting-edge approaches including: **Biosensor imaging, Biochemistry** and **Precision genome editing (HDR-based)** to investigate mechanisms connecting stress signaling pathways with developmental responses.

We seek a **highly motivated and creative candidate** with strong problem-solving abilities, critical thinking skills, and the capacity to engage in interdisciplinary scientific discussions. Applicants should demonstrate the ability to work **independently** while effectively coordinating with collaborators and supervising PhD students. An essential qualification is extensive experience in **molecular biology**. Experience with **omics technologies**, expertise in **large-scale data analysis** including AI-supported approaches, strong experience in **plant physiological and developmental phenotyping** and in **biochemical techniques** are highly desired skills. The working language in the laboratory is **English**, and excellent written and oral communication skills are required.

The Kudla laboratory focuses on **plant signal transduction**, particularly the role of **second messengers** in plant stress responses and their potential application for improving crop stress tolerance. The group is internationally recognized for developing and applying **advanced live-cell imaging approaches**. Research in the laboratory follows a **multiscale strategy**, spanning analyses from **protein structure over molecular network dynamics to systemic responses of the organism**. The laboratory provides a highly stimulating, international, and interdisciplinary research environment and is actively engaged in numerous international collaborations.

Selected publications from the laboratory:

- C. Zhang, Y. Song, J. Kudla, **Calcium signaling in crops**. *New Phytol.* (2025). <https://doi.org/10.1111/nph.70796>
- P. Köster, et al., **A bi-kinase module sensitizes and potentiates plant immune signaling**. *Sci. Adv.* 11, eadt9804 (2025). <https://doi.org/10.1126/sciadv.adt9804>
- L. Steinhorst, et al., **A Ca²⁺-sensor switch for tolerance to elevated salt stress in Arabidopsis**. *Dev. Cell* 57, 2081–2094.e7 (2022). <https://doi.org/10.1016/j.devcel.2022.08.001>
- W. Jing, et al., **Mitogen-activated kinase 6 facilitates autophagy initiation to confer salt tolerance in maize**. *Dev. Cell* (2026). <https://doi.org/10.1016/j.devcel.2026.01.002>

How to Apply

Please send the following documents by email:

- Curriculum Vitae (CV)
- Cover letter
- Contact details of three referees

Applications should be sent to:

application.agkudla@uni-muenster.de

Informal inquiries are also welcome and should be sent to the same email address. Review of applications will begin on **April 30th 2026** and continue until the position is filled.

Preferred start date: 1 August 2026 (or later, by agreement).