

Ph.D. student position in Plant Cell Biology

A funded Ph.D. student position is available in the group of Philipp Denninger at the Chair of Plant Systems Biology at the Life Sciences campus of the Technische Universität München in Freising-Weihenstephan.

The Denninger Lab seeks a highly motivated Ph.D. student to study Rho-GTPase signalling and protein kinases in tip growing pollen tubes of *Arabidopsis thaliana*. We want to understand how these signalling components dynamically change their subcellular localization, activity, interactors, and the association with the plasma membrane. This should lead to a better understanding how cells grow polarly, can change their growth direction and communicate with other cells during double fertilization.

To address these questions, we use live-cell imaging, developmental and cell biological approaches.

The ideal applicant shows a strong interest in cell or developmental biology and has a background in plant biology, biochemistry, or is experienced in microscopy.

Please send a letter of motivation and CV in a single PDF to: philipp.denninger@wzw.tum.de

The position is available immediately and will remain open until filled.

Further information and relevant publications:

Website of the Chair: <http://sysbiol.wzw.tum.de>

Website of the SFB924: <http://sfb924.wzw.tum.de>

P. Denninger, A. Reichelt, V. A. F. Schmidt, D. G. Mehlhorn, L. Y. Asseck, C. E. Stanley, N. F. Keinath, J.-F. Evers, C. Grefen, G. Grossmann. Distinct RopGEFs Successively Drive Polarization and Out-growth of Root Hairs. *Current Biology*. 29, 1854-1865.e5 (2019).

P. Denninger, A. Bleckmann, A. Lausser, F. Vogler, T. Ott, D. W. Ehrhardt, W. B. Frommer, S. Sprunck, T. Dresselhaus, G. Grossmann. Male-female communication triggers calcium signatures during fertilization in *Arabidopsis*. *Nature Communication*. 5, 4645 (2014).

I. C. R. Barbosa, H. Shikata, M. Zourelidou, M. Heilmann, I. Heilmann, C. Schwechheimer. Phospholipid composition and a polybasic motif determine D6 PROTEIN KINASE polar association with the plasma membrane and tropic responses. *Development*. 143, 4687–4700 (2016).