

**PhD position (m/f/d) in Plant Molecular Biology**

**Metabolic signalling  
during Arabidopsis seedling establishment**

The Dröge-Laser lab offers a PhD position at the **University of Würzburg, Germany**. We are looking for a highly motivated student, preferentially with background knowledge on plant molecular biology, holding a master's degree in Biology, Biochemistry or related disciplines. The applicant will be part of an international team focussing on plant stress signalling and transcriptional control.

**Project description:** The onset of plant life is characterised by a major phase transition: seed germination and subsequent seedling establishment are entirely heterotrophic and seed reserves are rapidly converted into carbohydrates to fuel metabolic demands until the autotrophic life-style is installed. Our previous work unravelled a crucial function of the metabolic master regulator SnRK1 (Snf1 RELATED PROTEIN KINASE) in orchestrating storage compound mobilization, hypocotyl elongation and establishment of the photosynthetic system (Henninger et al. Plant Cell, 2021). Focussing on seedling establishment, we aim at studying transcriptional and post-translational downstream events of central metabolic regulators such as the SnRK1 kinase. For further information see: <https://www.biozentrum.uni-wuerzburg.de/pbio/abteilung-prof-dr-wolfgang-droege-laser/>

**Methods:** genome editing by CRISPR-Cas9, promoter analyses in protoplasts, RNAseq, transcription factor binding assays, ChIP, confocal microscopy, phospho-proteomics, metabolic analyses

**Selected References:**

Henninger et al. Plant Cell (2021); Muralidhara et al., PNAS (2021); Dröge-Laser and Weiste TIPS (2018); Pedrotti et al., Plant Cell (2018); Mair et al., eLife (2015)

The Julius-von-Sachs Institute for Plant Science offers an excellent, multi-disciplinary research environment applying state-of-the-art techniques in plant physiology, molecular biology, biophysics, metabolomics and eco-physiology. The successful candidate will benefit from a structured PhD education due to participation in the Graduate School of Life Sciences (GSLs), Würzburg. The University of Würzburg is an equal opportunity employer. As such, we explicitly encourage applications from qualified women. Severely handicapped applicants will be given preferential consideration when equally qualified. Payment as a research assistant according to TV-L.

Please, submit your complete application as **one composite PDF** file including a statement of motivation and two references to Prof. Dr. Wolfgang Dröge-Laser ([wolfgang.droege-laser@uni-wuerzburg.de](mailto:wolfgang.droege-laser@uni-wuerzburg.de)). Review of applications will start 31.01.22 until the position is filled.

