Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

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

Metabolic signalling in plant pathogen defence

The Dröge-Laser lab offers a position for up to three years, intended to obtain a *Doctor of Natural Science* degree at the **University of Würzburg**, located in a beautiful wine-growing area in south 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 biosynthetic pathway leading to indolic glucosinolates provides specialized metabolites which function as potent defence compounds against pathogenic fungi. In the model plant Arabidopsis, this pathway is highly co-ordinated on transcriptional level. However, preliminary results suggest that metabolites are involved in a feed-back control. How metabolic signals are generated, transmitted and sensed to ultimately impact transcription is largely unknown in plants. The successful candidate will study this prototypic model to generate basic understanding on metabolic signalling in plants. For further information see: https://www.biozentrum.uni-wuerzburg.de/en/pbio/droege-laser-lab/

Methods: transgenic plants, genome editing by CRISPR-Cas9, protoplast transfection assays, RNAseq, transcription factor binding assays, ChIPseq, confocal microscopy, mass-spectroscopy based metabolic analyses

Selected References:
Fröschel and Dröge-Laser, Mol. Plant (2023); Fröschel et al., Cell Host Microbe (2021); Fröschel et al., MPMI (2019), Iven et al., Mol. Plant (2012)

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 preferentially 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 or University of Würzburg, Julius-von-Sachs-Institute, Julius-von-Sachs-Platz 2, D-97082 Würzburg). We accept applications until March 15th 2024 or until the position is filled.

Zertifikat seit 2008
audit familiengerechte hochschule