Friedrich-Alexander-Universität
Naturwissenschaftliche Fakultät

Molekulare
Pflanzen
Physiologie

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Department Biologie

Lehrstuhl für Molekulare Pflanzenphysiologie

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Erlangen, 31.01.2023

Job Advertisement

PhD position (TVL E13, 65% – for three years)

…is vacant at the FAU Erlangen-Nürnberg, Department Biology, Chair for Molecular Plant Physiology in the team of Prof. **Markus Albert**. The proposed research project aims at the

Interaction of parasitic plants with resistant non-host tomato.

Research topic
Cuscuta spp. (dodder) is a devastating parasitic plant on most plants and causes severe crop loss. Cultivated tomato evolved mechanisms to defend *Cuscuta*. The project will involve molecular and biochemical studies on the resistance reaction of tomato against *Cuscuta*. We aim to decipher molecular and cellular signaling components that are involved in this defense reactions of tomato against the infestation. Defense reactions include components of PAMP-triggered and Effector-triggered immunity (PTI and ETI), such as ethylene production, ROS-burst and hypersensitive response.
For more details on the project background please also check the literature:
Hegenauer et al. (2016), *Science*, 353 (Issue 6298), pp. 478-481 (DOI: 10.1126/science.aaf3919); Hegenauer et al. (2020) *Nature Communications*, 11 (1), 5299 (https://doi.org/10.1038/s41467-020-19147-4); Albert et al. (2021) *Plant Physiology* 185 (4), 1282-1291 (https://doi.org/10.1093/plphys/kiaa064)
The candidate will also be involved in teaching, like the supervision of students in the BSc & MSc degree courses.

Qualification profile
We are looking for an excellent, highly motivated candidate with knowledge in molecular biology and/or biochemistry who is interested to study the immune responses and molecular interactions of resistant plants with parasitic plants. Applicants must hold a master degree in molecular biology or biochemistry. and plant immunity. Previous work on plant/pathogen interactions is not required but of advantage. The successful candidates should be creative, willing to be(come) independent researchers and also to work co-operatively within a team. Applicants must possess good communication skills and be fluent in both spoken and written English.

We offer
Salary will be within the TV-L E13 (PhD candidates 65%). The position can start March 15st and will be available for three years from starting date. The PhD candidate can be integrated (voluntary) in the graduate program “Life@FAU” (https://www.life.fau.de/).
Applicants should provide a CV and a covering letter addressing their motivation.

Please send your application as one pdf until latest Feb. 20th, 2023 to:
Markus Albert, markus.albert@fau.de