

Doctoral researcher or postdoctoral position in carnivorous plant biology

The research group of Kenji Fukushima at the University of Würzburg is seeking 1 Doctoral researcher (i.e., PhD student) or 1 Postdoctoral researcher. The successful applicant will participate in the research project "Stoma-to-stomach evolution: the hidden link between stomatal physiology and plant carnivory" funded by DFG (granted to KF) in which the evolution of carnivorous plants will be studied by combining electrophysiology and evolutionary transcriptomics. In particular, the project will focus on the evolution of gland cells and ion channels that involve the secretion of hydrochloric acid in the Australian pitcher plant *Cephalotus follicularis* (photo). This project will be driven by tight collaboration with multiple researchers especially within the Chair of Botany I (e.g. with Profs. Rainer Hedrich and Dietmar Geiger) where sophisticated electrophysiology facilities are available.



The position is available from April 2021, but the start date is flexible. The salary and benefits will be based on the "Tarifvertrag für den öffentlichen Dienst der Länder" (Collective Agreement for the Public Service of German Federal States, TV-L). The exact amount of salary will vary according to the pay step ("Stufe") and the pay grade ("Entgeltgruppe"). To which pay grade and step the successful applicant will be assigned will depend on his or her professional background. If all requirements are met, the applicant will be assigned to pay grade E13. The Doctoral researcher position is part-time (0.65 FTE) and for a fixed term of 3 years, and the postdoc position is full-time (1 FTE) and for a fixed term of 2 years. A salary calculator can be found here.

Minimum qualifications:

- Master's degree (Doctoral researcher) or PhD degree (postdoc) in Molecular Biology, Electrophysiology, Plant Biology, Evolutionary Biology, Genomics, Bioinformatics, or a related discipline
- · Strong interest in plant biology
- Sound knowledge and skills in molecular biology
- Ability to work independently and in a team environment

Preferred qualifications:

- · Sound knowledge and skills in plant physiology
- Sound knowledge and skills in statistics and bioinformatics
- Experience in electrophysiology
- Experience in high-throughput DNA sequencing
- A good record of publications in peer-reviewed journals

Application: Applications and inquiries should be emailed to Kenji Fukushima (kenji.fukushima@uni-wuerzburg.de). The closing date for applications is **28 February 2021.** Review of applications will begin immediately and continue until the positions have been filled. The University of Würzburg aims to increase the number of women in those areas where they are underrepresented. Therefore, we explicitly encourage applications from woman. Severely handicapped applicants will be given preferential consideration when equally qualified. All applications should be submitted as a single pdf file containing:

- A cover letter including the statement of interest
- A CV including a list of publications
- Names and contact details of at least two professional references

Research: For details, please see our website or our previous publications:

- 1. Fukushima et al., 2021. A discordance of seasonally covarying cues uncovers misregulated phenotypes in the heterophyllous pitcher plant *Cephalotus follicularis*. **Proceedings of the Royal Society B** in press
- 2. Hedrich and Fukushima, 2021. On the origin of carnivory: Molecular physiology and evolution of plants on an animal diet.

 Annual Review of Plant Biology 72 in press
- 3. Fukushima and Pollock, 2020. <u>Amalgamated cross-species transcriptomes reveal organ-specific propensity in gene</u> expression evolution. **Nature Communications 11**: 4459
- 4. Fukushima et al., 2017. Genome of the pitcher plant *Cephalotus* reveals genetic changes associated with carnivory. **Nature Ecology & Evolution** 1: 59
- 5. Fukushima et al., 2015. Oriented cell division shapes carnivorous pitcher leaves of Sarracenia purpurea. Nature Communications 6: 6450
- 6. Fukushima and Hasebe, 2014. Adaxial-abaxial polarity: The developmental basis of leaf shape diversity. Genesis 52(1): 1-18