Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Behavioral Physiology & Sociobiology
(Zoology II)

PhD position – Neuroethology of hawkmoth spatial vision

We are looking for a PhD candidate in the Department of Behavioral Physiology & Sociobiology at the University of Würzburg. The Stöckl lab studies the visual neuroethology of hawkmoths – in particular spatial information processing and its consequences for flower selection and movement control. We combine intracellular electrophysiology, quantitative behavioural experiments and neuroanatomical methods (immunohistochemistry, block-face SEM) to answer these questions.

The suggested starting date is December 2019 (negotiable). Our department values an international work environment and we welcome international applicants.

Project description: Parallel spatial channels in the insect visual system

The visual system acquires information about the natural world with a particularly high dimensionality. Parallel processing categorizing visual signals at an early stage is crucial to process the complex input with limited neural capacities. While well-known from vertebrates, the existence of parallel spatial processing channels in insects has not yet been demonstrated. In this project, the PhD candidate will study spatial processing in the hawkmoths brain, in particular lamina monopolar cells, which previous results have pointed to as the ideal candidates for parallel spatial channels. This will be achieved by intracellular recordings, combined with immunohistochemistry and serial block-face EM reconstructions of the lamina. Using quantitative behavioural paradigms, the resulting spatial acuity of the different channels will also be analysed.

Qualifications of the applicant

We are seeking a highly motivated candidate with a degree (Master) in Biology, Neuroscience, Engineering or related subjects. A solid background in neuroscience is mandatory. A strong interest in insect vision and neuroethology, an excellent track-record and experience with any of our methods, as well as programming (Matlab) would be desirable.

Type of employment

Payscale according to TV-L (65%). The positon is fully funded by a DFG-project for three years. The University of Würzburg aims at increasing the proportion of female employees. Disabled applicants will be preferentially considered in case of equivalent qualification.

Contact for applications

Please send applications as a single pdf file including a cover letter, CV, and the name of two references to Anna Stöckl: anna.stoeckl@uni-wuerzburg.de.
Don't hesitate to contact us if you have any questions!

The application deadline is October 8th, 2019.

Zertifikat seit 2008
audit familiengerechte hochschule

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