



Vacancy Notice 249/2024

Otto von Guericke University Magdeburg (OVGU) is an internationally oriented and regionally networked university with a strong research profile.



The Faculty of Natural Sciences seeks to fill the following vacancy – subject to the allocation of funds – at the Institute of Biology:

Research Associate (PhD Student) (m/f/d) in Neuroscience



Salary scale:	Date commencing:	Fixed term (until):	Contract status:
13 TV-L	01.09.2024	31.12.2027	65 %

The Junior Research Group “Cellular and Synaptic Mechanisms of Engram Formation” at the Institute of Biology is looking for a highly skilled and motivated neuroscientist with a strong background in circuit and behavioural neuroscience in rodents. The position is supported by the European Regional Development Fund (ERDF). Initial funding is until the end of 2027.

Our research group aims to understand the neurobiological basis of how memories form and how they are transformed into optimal behavioural action during recall. To answer this, we employ a wide range of techniques in the realms of *in vivo* two-photon calcium imaging and single-photon calcium imaging in freely moving mice, combined with optogenetic stimulation, circuit tracing, and engram labelling strategies.

The research project will build upon recent findings of our group demonstrating a direct pathway from the rodent hippocampus to the nucleus accumbens mediating spatial reward memories (Barnstedt et al., 2024, Nature Communications). In this project, we will investigate how hippocampal reward engrams form and how they are modulated by state-dependent release of neuromodulators. The ideal candidate is experienced in rodent stereotactic surgeries, behavioural experiments, immunohistochemistry, and microscopy. Experience with *in vivo* physiology and programming experience are beneficial. We expect a strong motivation to learn new techniques and the ability to independently plan, conduct and analyse experiments and to prepare the results for publication. The successful candidate will work in an interdisciplinary environment and an international and inclusive team. For more information, see also www.barnstedtlab.com. English proficiency is mandatory.

Your benefits:

- You will have the opportunity to learn cutting-edge *in vivo* neuroscience techniques to answer fundamental questions of memory processing in a supportive environment
- As an internationally oriented university with about one-third international students, we offer a diverse working environment
- You work in a young and dynamic international team with low hierarchies and strong mutual support

For further information about the position, please contact Dr. Oliver Barnstedt at: [oliver.barnstedt\(at\)ovgu.de](mailto:oliver.barnstedt(at)ovgu.de). Please send your complete application (motivation letter, curriculum vitae, graduation certificates, references) by **July 31, 2024** using the following link: <https://ovgu.b-ite.careers/en/jobposting/c895c2959661ea3115983856324cea3d146999850/apply>