

## Vacancy Notice 248/2024

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:

### Postdoctoral Researcher (m/f/d) in the field of Circuit and Behavioural Neuroscience

|               |                  |                     |                  |
|---------------|------------------|---------------------|------------------|
| Salary scale: | Date commencing: | Fixed term (until): | Contract status: |
| 13 TV-L       | 01.09.2024       | 31.12.2027          | 100 %            |

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 use said techniques to understand how this circuitry and its constituent population codes change with learning, and which neuronal cell types are involved at different stages of memory processing. The ideal candidate is experienced in *in vivo* calcium imaging or electrophysiology. Additional expertise in optogenetics, immunohistochemistry, behavioural methods, and computational analysis using Python or Matlab is beneficial. We expect a strong motivation to work closely with the PI to establish techniques at the institute and train students, 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](http://www.barnstedtlab.com). English proficiency is mandatory.

#### Requirements profile:

- You have a MSc degree or equivalent **and** a PhD in neuroscience or a related field
- You have ample experience of physiological recordings (optical or electrical) in awake behaving rodents, demonstrated by authorship in relevant journal publications
- You have some experience in analysis of large-scale neurophysiological data using Python or Matlab
- You are a team player and ready to learn, teach, and enjoy research together
- Excellent English language skills (C1 level)

#### Your benefits:

- You can expect challenging tasks with a great leeway to organize them
- As an internationally oriented university, we offer a diverse working environment



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- 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).

We are a university with a focus on engineering and natural sciences as well as economics, human sciences and medicine. We offer excellent study and working conditions to 13,000 students from Germany and abroad as well as approx. 3,000 employees. You will benefit from our structures and offerings in the fields of sustainability, diversity, family support and staff development. Our location in the center of a thriving, lively and family-friendly state capital guarantees a high quality of life and a wide range of leisure activities. For more information, please visit [www.ovgu.de/en/karriere](http://www.ovgu.de/en/karriere). The Institute of Biology is located within 200 metres from the Leibniz Institute for Neurobiology (LIN), the German Center for Neurodegenerative Diseases (DZNE), and the Institute for Anatomy, thus enabling thriving local collaborations.

Otto von Guericke University Magdeburg is a signatory of the German Diversity Charter. We welcome your application, regardless of gender, cultural and social background, age or sexual orientation. Applications from severely disabled people or people with an equivalent impairment will be given priority in the case of equal suitability, ability and professional expertise. Otto von Guericke University Magdeburg strongly promotes gender equality in all professional areas.

Please note the information for storage of personal data: [https://www.ovgu.de/en/data\\_protection.html](https://www.ovgu.de/en/data_protection.html).

Please send your complete application (motivation letter, curriculum vitae, graduation certificates, references) by **July 31, 2024** using the online application portal:

<https://ovgu.b-ite.careers/en/jobposting/763247b12b50201d4bec2e91e4fc2d91861c305b0/apply>