



MEDIZINISCHE
FAKULTÄT

A PhD position is available in the lab of Dr. Janelle Pakan (<https://www.pakanlab.com>) in association with the Research Training Group 2413 SynAGE (<https://www.synage.de>), supported by the German Research Foundation. The position has a salary of TV-L E13 (65%) starting from **June 1st, 2023** or as soon as possible with an initial funding period of 3 years.

The project will investigate patterns of hyperactivity that occur with ageing and lead to altered long-range and local synaptic function and subsequent aberrant network excitability along with associated memory deficits. Specifically, the candidate will investigate the underlying contribution of cell-type specific projections within hippocampal-cortical circuits in mice and characterise the synaptic changes within long-range versus local cortical circuits across ageing. The candidate will gain valuable experience with *in vivo* two-photon calcium imaging in behaving mice in combination with virtual environments.

You will work at the Otto von Guericke University (OvGU) with Dr. Janelle Pakan in close cooperation with the Leibniz Institute for Neurobiology (LIN, Prof. Stefan Remy), as well as the DZNE Magdeburg (Dr. Anne Maass), where the results of the project will also be directly related to comparable MRI-based experiments in humans. You will be part of a multidisciplinary, international, and dedicated project group that offers you a wide range of opportunities for personal and professional skill development. The University offers excellent opportunities for cognitive and systems neuroscientific research, including a vibrant *in vivo* two-photon imaging community, several MRI facilities, as well as an excellent, multidisciplinary scientific environment.

The candidate will be given the opportunity to develop a doctoral thesis with extensive support through the RTG2413 (<https://www.synage.de>) and the CBBS graduate program (<http://gp.cbbs.eu>).

Your profile:

- MSc in Neuroscience, Biology, Biomedical engineering, Life sciences, or a related field
- Experience with microscopy techniques and interest in neuroimaging
- Familiarity with statistics and programming experience with Matlab and/or python are advantageous
- Preference will be given to candidates with a completed FELASA course (or equivalent), but willingness to work directly with animals is a minimum requirement.

Please send your application including a motivation statement, CV, and contact information for two references to Janelle Pakan (janelle.pakan@med.ovgu.de). The initial **application deadline is May 1st 2023**, however candidates will be evaluated as they apply and the position will remain open until a suitable candidate is found.

Your appointment and welfare benefits will be in line with the Collective Agreement for Public Service in the Federal States (TV-L). Equal opportunity and the compatibility of career and family form part of our HR policy. Otto von Guericke University 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 case of equal suitability, ability and professional expertise.

Dr. Janelle Pakan

*Group Leader: Neural Circuits & Network Dynamics Group,
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