

Neuroscience PhD to study large-scale neuronal dynamics in Parkinson's disease

The translational neurophysiology group is seeking a PhD candidate for a project within the DFG-funded Collaborative Research Center *ReTune*.

The project aims to understand how neuronal population activity across the cortico-basal ganglia network is altered in the Parkinsonian mouse model and whether it can be rescued by pathway-specific neuromodulation. This will be achieved through a combination of state-of-the-art methods, including high-density in vivo electrophysiological recordings (Neuropixels), pathway-specific optogenetics and detailed behavioural analysis (DeepLabCut).

The successful applicant will join the newly established group by [Dr. Peng](#) that is part of the Department of Neurology and affiliated with the Neuroscience Research Center at the Charité-Universitätsmedizin Berlin. The group focuses on synaptic microcircuits and neural population dynamics underlying goal-directed motor behaviour, with a strong emphasis on translational neuroscience. The group is part of the transregional [Collaborative Research Center *ReTune*](#) (CRC) which provides a highly interdisciplinary scientific community that covers clinical, experimental, and computational neuroscience with a special focus on movement-related brain circuits. As part of the CRC, the candidate will be co-supervised by [Prof. Tovote](#) (Würzburg) and benefit from regular seminars and fall schools for early career researchers. In addition, Berlin's vibrant neuroscience community offers regular talks, events, and workshops.

We offer:

- A stimulating research environment with access to state-of-the-art methods
- Extensive training and professional development opportunities
- Opportunities for International and interdisciplinary collaborations
- A supportive community with mentoring and supervision

Your profile:

- M.Sc or equivalent degree from a neuroscience-related field
- Enthusiasm for translational neuroscience research and desire to tackle challenging questions
- Experience in electrophysiology and/or animal behaviour desired
- Programming (Python/Matlab) and quantitative skills to analyze complex datasets desired
- Interest in collaboration, communication, and project management
- Excellent written and verbal communication skills in English

The position is funded by the DFG ReTune CRC 295 for 4 years. The salary corresponds to a scientist position in pay group 13 according to TVÖD with a working time of 65%.

Starting date: 1. September 2024.

Application deadline: 30. June 2024.

To apply, please send a motivation letter explaining your skills and interests relevant to the project, and a detailed CV with two references to yangfan.peng@charite.de

Charité – Universitätsmedizin Berlin hires based on suitability, qualifications, and professional performance. They encourage women and individuals with a migration background to apply and give special consideration to equally qualified women and disabled applicants.