Neuroscience Postdoc in a collaboration between Berlin and Oxford

We seek a **neuroscience postdoctoral researcher** for a **3-year** collaborative project between Charité-Universitätsmedizin **Berlin** and University of **Oxford** as part of an Einstein BUA/Oxford Visiting Fellowship to Prof. Andrew Sharott (Oxford).

The post-holder will contribute to projects that aim to uncover large-scale neural dynamics underlying the cognition and motor control, and the disruption of these processes in disease. We will address these questions through a combination of high-density electrophysiological recordings (**multiple Neuropixels probes)**, automated behavioural analysis (DeepLabCut) and application of linear and non-linear dimensionality reduction approaches. Specifically, we have obtained a dataset with movement-related activity from over 40,000 neurons across 23 brain regions that can be further explored and will record similar data sets with different tasks over the next years. In addition, this collaboration will also include opportunities to analyse human local field potential data that were recorded from Parkinson's patients that underwent implantation of deep brain stimulation electrodes.

The successful applicant will be based in the Department of Neurology, Section for Movement Disorders at the **Charité-Universitätsmedizin Berlin**. This project will be supervised by Dr. Yangfan Peng (Berlin), Prof. Andrew Sharott (Oxford), and Prof. Andrea Kühn (Berlin).

We offer:

- State-of-the art experimental techniques and datasets for studying movement-related neural activity in mouse and human.
- Opportunity to develop analytical skills and experience research at the intersection between basic and translational motor neuroscience.
- Unique opportunity for regular exchange between Berlin and Oxford with vibrant research communities (Berlin: sfb-retune.de, Oxford: mrcbndu.ox.ac.uk). These communities provide regular events on career development.

Responsibilities:

- Analyse and interpret in vivo electrophysiological and behavioural data.
- Develop and implement data analysis pipelines for large-scale neural recordings.
- Assist during in vivo electrophysiological experiments.
- Present results in meetings and author manuscripts for publication.

Your profile:

- PhD degree in neuroscience related field.
- Experience in scientific programming (Python and/or Matlab) required.
- Experience with recording and/or analysing electrophysiological data required.
- Interest in translational neuroscience.
- Interest in collaboration, communication, and project management.

The salary corresponds to a full-time scientist position in pay group 13 according to TVÖD.

Application deadline: 30.06.2024 | Starting date: 01.09.2024

For further information and to apply (with a letter describing your previous experience and scientific interest, a CV and named references) please contact Dr. Yangfan Peng: yangfan.peng@charite.de