

# Postdoc Position in Multi-Modal Brain Stimulation

## Job description

We look for a talented researcher with a passion for studying motor control and brain stimulation. The goal of this project, funded by the German Research foundation (DFG), is a combination of different brain stimulation techniques towards a network stimulation for Parkinson's disease.

The successful applicant will join the Department of Neurophysiology and Pathophysiology at the University Medical Center Hamburg-Eppendorf (UKE, Germany), including a tight collaboration with the MRC Brain Network Dynamics Unit, University of Oxford (UK). A stay in Oxford for up to 6 months, as well as a further collaboration with the University of Twente (Netherlands) on neurotechnology are possible.

## About the project

Network dynamics relating to the motor symptoms of Parkinson's disease, including both basal ganglia and cortical structures, are still poorly understood. Deep brain stimulation (DBS) has become a popular treatment option for severe cases, often relieving many of the motor symptoms. Still, it is not clear how DBS modulates large-scale networks, and which modulations relate to symptoms and side-effects. Systematic and specific modulation of networks may shed light into with aspects are pathological or maladaptive. In this project, we combine different stimulation modalities towards controlled network stimulation in Parkinson's disease.

For more information you are welcome to contact Dr. Bettina Schwab ([b.schwab@uke.de](mailto:b.schwab@uke.de)).

## Your profile

We look for a highly motivated, enthusiastic researcher who is driven by curiosity and has:

- or will shortly acquire, an MD or a PhD in neuroscience or a related topic.
- programming experience (e.g. Matlab, R, Python, or C++).
- experience with advanced biomedical signal analysis.
- affinity to the clinical application of neurotechnology.
- a creative and interdisciplinary approach.
- proficiency in English.

The following skills are not required but of advantage:

- experience with functional magnetic resonance imaging (fMRI).
- experience with brain-computer interfaces (BCIs).
- experience in working with patients.
- knowledge of German.

### **Our offer**

We offer an exciting temporary research position in a dynamic and international environment.

- A position as a postdoctoral fellow at UKE (TV-L 13) for 3 years.
- Funding for a stay in Oxford.
- The possibility of training in new methodologies (fMRI, BCIs).
- Working in a committed, interdisciplinary team with many years of internationally expertise in neuroscience, neurophysiology as well as clinical care of patients.
- A high degree of responsibility and independence.

### **Information and application**

Are you interested to be part of our team? Please send your application to [b.schwab@uke.de](mailto:b.schwab@uke.de), including:

- a letter of motivation, emphasizing your specific interest, qualifications and motivation to apply for this position
- a detailed CV including a list of publications
- MD or PhD certificate
- contact information of two referees

Selected applicants will be invited for an (online) interview.