

**Post-Doc and PhD position
at the Institute for Clinical Neuroscience and Medical Psychology**

Both positions are in the context of the project “Spontaneous brain activity in healthy subjects and Parkinson’s disease”, funded by the Volkswagen foundation. The project aims at providing a characterization of the neurophysiological basis of the brain’s resting state networks (RSNs) by determining how communication between and within RSNs is mediated, using electro-/magnetoencephalographic (E/MEG) data from healthy participants. In the second part of the project the characterization of RSN electrophysiology will be used to improve our understanding of the pathophysiology of Parkinson’s disease. A particular focus will be on tracing out the electrophysiological mechanisms underlying the effectiveness of dopamine treatment and deep brain stimulation.

The jobs involve research design, data collection, data analysis, methods developments/implementation, presenting at conferences, and participating in the writing up of the results. The PostDoc is also expected to assist in the supervision and training of junior lab members.

Preferable candidates will have a strong background in physics, neuroscience, electrophysiology, biology, computer science or related fields. Knowledge of MEG/EEG biophysics, data acquisition and analysis, biostatistics, and signal processing or the willingness and capability to quickly acquire this knowledge are essential.

Qualities we are looking for:

- Good scientific programming and data processing skills
- Familiarity with Matlab and LaTeX
- Solid knowledge of descriptive and inductive statistics and time series analysis
- Previous exposure to M/EEG source estimation, Brainstorm, and fMRI resting state analysis are considered a plus
- Strong motivation to carry out neuroimaging studies utilizing MEG and to perform source and connectivity analysis
- Knowledge of neuroscience concepts
- Good interpersonal and communication skills, particularly in the interaction with subjects and patients (beneficial: knowledge of German)
- Excellent skills in written and spoken English;
- Proven track record of academic excellence

What we offer:

The group is part of the Institute for Clinical Neuroscience and Medical Psychology at Heinrich-Heine University, Düsseldorf, located in the capital of Germany’s biggest state. The institute hosts a state-of-the-art 306 channel MEG-system and a 128 channel EEG system as well as a 3T MRI. The Heinrich-Heine University (HHU) is part of the Neuroscience Network Düsseldorf, a collaborative effort jointly with the Research Centre Jülich and the IUF - Leibniz Research Institute for Environmental Medicine Düsseldorf. A particular focus of this network is the investigation of disease-associated pathomechanisms such as the one of Parkinson’s disease. At the HHU

Düsseldorf the graduate school iBrain has been established and enables graduate students to obtain further formal qualifications in neuroscience.

Terms and conditions for this position:

Both positions are available from 1st of July 2016 or until filled. The initial appointment is for 2-3 years (postdoc) or 3 years (PhD student). Salary for the PostDoc will be according to E13/TV-L and for the PhD up to 0.65 E13/TV-L. Health insurance is included.

The contract will be affiliated with Heinrich Heine University Düsseldorf.

Female candidates are encouraged to apply; they will be given preference in cases of equal aptitude, ability, and professional achievements unless there are exceptional reasons for choosing another applicant.

Applications from suitably qualified severely disabled persons or disabled persons regarded as being of equal status according to Book IX of the German Social Legal Code (SGB – Soziales Gesetzbuch) are encouraged to apply. Disabled applicants will be given preferential consideration in the case of equal aptitude.

More information about this vacancy?

Please contact Esther Florin: esther.florin@med.uni-duesseldorf.de

Are you interested?

Please send your application within 3 weeks to:

Universitätsklinikum Düsseldorf
D 01.2.1 – Kennziffer: 149E/16, Moorenstr. 5, D-40225 Düsseldorf

It should include the following documents:

- short (one page) application letter
- your CV, incl. a list of publications and the names and contact details of two scientists who can provide references
- writing sample
- one-page summary of your research

For administrative reasons, we cannot return applications. In submitting your application, you give your consent to the retention of the application documents by the university hospital Düsseldorf.