



UNIVERSITÄTS
KLINIKUM
TÜBINGEN



Hertie Institute
for Clinical Brain Research

The University Hospital / Hertie Institute of Clinical Brain Research Tübingen (Germany) is seeking a

PhD Student / Research Fellow in MEG/EEG Connectivity of Genetic Epilepsies (Wissenschaftlicher Mitarbeiter, 50%)

for the AG Translational Neuroimaging in a DFG-funded 3-years project.

The successful applicant will work primarily on **functional connectivity in MEG and hd-EEG** in patients with **genetic epilepsy**. This involves graph-theoretical concepts and machine learning approaches. The aim of this project is to link the genetic causes of epilepsy with imaging patterns and improve our understanding of the pathophysiology and genotype-phenotype relations in general.

Applicants need a university degree (MA or equivalent) in physics, mathematics, biology, biomedical engineering, medicine or other related disciplines. **Programming skills** (Matlab) are essential as is previous knowledge of **MEG or EEG** and common **imaging toolboxes** (e.g. Fieldtrip, Brainstorm, SPM, FSL). Publications on network analysis/graph theory are beneficial for a successful application, as is previous experience with epilepsy. Since the study involves interaction with patients, German language skills are advantageous. The applicant has to be fluent in English, both written and oral.

The focus of our group is the utilization of imaging and post-processing methods to better understand the neurobiology of focal and generalized epilepsies, allow individualized diagnostics and translate methodological advances into clinical applications. The applicant will have access to a unique setting including high-density MR-compatible 256-channel EEG, 3T- and 9.4T-MRI scanners, human and fetal MEG and hybrid human PET-MR facilities. The medical university clinics runs a comprehensive epilepsy surgery program including invasive EEG recordings. The applicant can be enrolled into the neuroscience PhD program including various teaching courses and further benefits (<http://www.neuroschool-tuebingen.de/>).

The salary is according to German federal scale (TV-L, E13 50%). The initial contract is for one year. After successful interim evaluation (PhD advisory board), a prolongation for further two years is available. The university is especially encouraging the application of women. Disabled applicant are preferred in case of equal qualification. The intended start date is November 2016 with some flexibility.

Please send a letter of motivation, CV, references and, if available, a sample publication to:

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