

PhD position in pain and optogenetic fMRI in mice at UKM in Münster, Germany

The **Departments of Anesthesiology and Clinical Radiology** are offering a PhD position initially limited to 3 years:

PHD Student (gn*)
Part-time with 65%
Salary according to TV-LE13

(*gn= gender neutral)

A position is available for a graduate student to participate in a joint project with the Department of Anesthesiology, and the Translational Research Imaging Center (TRIC) at the University Hospital Münster, Germany. In this project we will study sex-differences of pain processing in mouse pain models. We are specifically interested in investigating peripheral and spinal signaling pathways and changes in cerebral networks in clinically-relevant acute and chronic pain using cutting-edge in vivo multimodal imaging. Methods will include functional MRI, fMRI in combination with optogenetics and/or Ca²⁺ recordings, resting state fMRI, and brain network analysis based on Graph Theory. Additionally, routine biochemical and immune-histochemical assays will be applied as needed.

The Translational Research Group (Dpt. of Anesthesiology) is focused on behavioral as well as in vivo neurophysiological studies related to pain mechanisms and the Experimental MR group within the TRIC has a longstanding focus on neuro- and multimodal imaging. Together, our labs will perform in vivo imaging studies using fMRI and in vivo optogenetics.

The candidate should have a MSc degree in Biology, Physics, Veterinary medicine, Psychiatry or related subject, strong interest in Neuroscience, interest in method development/refinement; ideally, prior experience in fMRI or neurophysiology, very good English skills in both speaking and writing.

Available instrumentation:

9.4 T MRI system (Biospec with cryoprobe); setups for in vivo behavioral testing, optogenetic stimulation and in vivo electrophysiological recordings; labs equipped for biochemistry and histology; computer server for data analysis and simulations;

Access to setups and instrumentation in other groups: in vitro patch clamp recordings; DIA-mass spectrometry; fluorescence reflectance imaging system (with X-ray); fluorescence tomography; small animal PET and small animal Micro-CT.

Please send your application (including the above reference number a CV, contact information for two references and a cover letter describing your previous achievements and future goals) with all relevant information (PDF-file, max. 5 MB) until **01.06.2020** to **Dr. Bruno Pradier** (pradier@uni-muenster.de), **Prof. E. Pogatzki-Zahn** (pogatzki@anit.uni-muenster.de), and **Prof. C. Faber** (faberc@uni-muenster.de). For further information please refer to <http://campus.uni-muenster.de/nmr.html>.

Applications of women are specifically invited. In the case of similar qualification, competence, and specific achievements, women will be considered on preferential terms within the framework of the legal possibilities. Handicapped candidates with equivalent qualifications will be given preference.