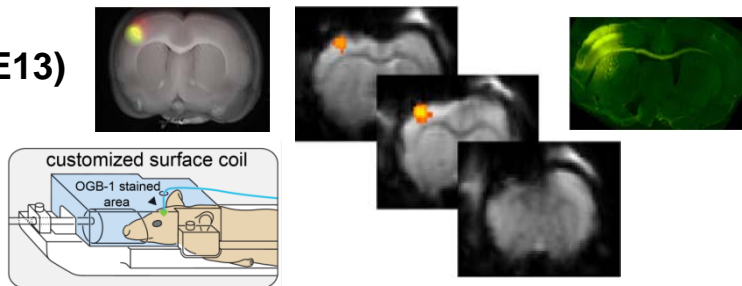


Open Postdoc position in **optogenetic fMRI** at the Experimental Magnetic Resonance Group at the Westfälische Wilhelms-Universität **Münster**, Germany.

### 3 year postdoctoral position (E13)

- optogenetic fMRI
- networks in the rodent brain
- epilepsy model (GAERS)
- $\text{Ca}^{2+}$  recordings + fMRI
- resting state fMRI



#### The project:

Brain function depends on its neuronal networks. This project aims to study network dysfunction in a rat model of epilepsy (GAERS). To this end, we combined in vivo fiber-based optical  $\text{Ca}^{2+}$  recordings with BOLD fMRI, and optogenetic control in a multimodal setup. Identification of network “choke points” is expected to initiate novel therapeutic strategies.

#### Applicants:

Applicants are expected to have completed a PhD in the field of small animal MRI or neurophysiology with imaging experience, or in optogenetics. Expected qualifications include: training in small animal fMRI, or neurophysiological in vivo methods; experience in operating Bruker MRI scanners (Paravision); good skills in Matlab. The successful candidate will be devoted to science and integrate in a dynamic interdisciplinary team.

#### The group:

The experimental MR group has a focus on neuroimaging and multimodal imaging. Münster offers an excellent neuroimaging environment with numerous partners in neurophysiology, neuroanatomy, neuroimaging and cell biology. The group is part of several collaborative research centers (SFBs) and of the Cluster of Excellence Cells in Motion.

#### Available instrumentation:

9.4 T MRI system (Biospec with cryoprobe), MR-compatible  $\text{Ca}^{2+}$ -recording and optogenetic stimulation setup with multiple Lasers, RF laboratory, mouse & rat facility, microbiology and biochemical lab, compute server for data analysis and simulations.

#### Applications and further information:

Prof. Dr. Cornelius Faber or Dr. Lydia Wachsmuth  
Institut für Klinische Radiologie, Universitätsklinikum Münster, Münster, Germany  
[faberc@uni-muenster.de](mailto:faberc@uni-muenster.de), [lydia.wachsmuth@uni-muenster.de](mailto:lydia.wachsmuth@uni-muenster.de)

See also

<http://campus.uni-muenster.de/nmr.html>