

The research department of neuroscience (RDN), established at the Ruhr-University Bochum (RUB) several years ago, is an integrative platform for multi-disciplinary and diversified neuroscientific research. RDN research has an inter-disciplinary orientation, based on the research expertise and tradition of four RUB faculties, three institutes, a graduate school, as well as the RUB university clinics. The inter-disciplinary magnetic resonance (MR) research groups belonging to the RDN, participate in two Collaborative Research Centers (SFB 874, SFB 1280) and investigate various neuroscientific topics, such as neuroplasticity in perceptual learning, extinction learning, and cognitive performance, with a focus on multi-modal MR imaging. Further main topics are quantitative and multi-modal MR imaging of neuroinflammatory and neurodegenerative processes of the central nervous system in various neurological and psychiatric diseases. For their research, the groups currently use a dedicated research MR scanner (Philips Achieva 3T X-series), located at the University Clinic Bergmannsheil.

As part of upgrading their 3T imaging capacities, the MR research groups of the RDN are looking for an MR Scientist /Physician for project support and MR scanner administration.

### **MR Scientist /Physicist (m/f/d)**

#### Your tasks:

- Development, optimization and technical support of modern multimodal MRI sequences, including multi-shell diffusion-weighted imaging (DWI, DTI), functional imaging (fMRI, BOLD), arterial spin labeling (ASL) and magnetic resonance spectroscopy (MRS)
- Development of new methods/procedures for quantitative characterisation of tissues
- Administration and technical supervision of the research MR scanner
- Technical supervision of neuroscientific fMRI and/or quantitative MRI studies
- Participation in interdisciplinary MR research activities, initiation of own research activities, writing of publications and presentations on national and international conferences (ISMRM)

#### Your qualifications:

- We are looking for a highly motivated individual, with a doctoral degree, or equivalent, in the area of physics, biology, biomedical engineering etc., and technical expertise in magnetic resonance technology
- Attested qualifications in the area of designing, performing and analyzing structural and functional MRI and MRS in human subjects. Expertise in simultaneous EEG/fMRI imaging and MRI brain stimulation approaches would be of advantage
- Expert knowledge in pulse programming of MRI sequences
- Experience with publishing research data and acquisition of grants would be of advantage
- Coordination and organization skills, team player, as well as a high level of motivation for independent work in interdisciplinary project teams
- Excellent command of the English language, good command of the German language

#### What to expect:

- Full-time position (38.5 hrs/week), initially fixed-term (2 years) with an option on a permanent position.
- Payment: TV-L according to personal conditions
- Innovative diverse neuroscientific research opportunities with room for own scientific development, optional opportunity for doctoral studies/promotion.
- Ample opportunities for professional development
- Family-friendly conditions and flexible working hours

Travel expenses for interviews cannot be refunded.

To apply, please send a CV, motivation letter, certificates, in a single PDF by 31.12.2020 to: Prof. Dr. M. Tegenthoff, Chair Dept of Neurology, BG-University Clinic Bergmannsheil, Ruhr-University Bochum; e-mail: [martin.tegenthoff@rub.de](mailto:martin.tegenthoff@rub.de)