



Katholisches Klinikum Bochum

The Research Department of Neuroscience (RDN) seeks a

MRI Scientist / Physicist (m/f/d)

The Research Department of Neuroscience (RDN) at Ruhr-University Bochum (RUB) has a long tradition of successfully integrating both interdisciplinary and multidisciplinary neuroscientific research. This research draws on the scientific expertise and methodological competence of six RUB faculties, several research consortia and the RUB university hospitals. Interdisciplinary research groups of the RDN use magnetic resonance imaging (MRI) approaches to address various neuroscientific questions such as the role of neuroplasticity in perceptual learning, extinction learning or cognitive performance, with a focus on multimodal MRI imaging. Another focus is placed on quantitative and multimodal MRI of neuroinflammatory and neurodegenerative processes of the central nervous system in various neurological and psychiatric diseases. The research groups are equipped by the RDN with their own new 3 Tesla research scanner (Siemens MAGNETOM PRISMA NX), located at RUB's Institute for Research and Teaching (IFL, location: St. Josef Hospital) and a 3Tesla Philips Achieva NX system (location: University Clinic Bergmannsheil).

With the goal of expanding its 3T imaging capacities, the RDN seeks an MRI-Scientist / Physicist to support its research and provide MRI equipment support. The position is available immediately.

The position will be located at the RUB university clinic, Katholisches Klinikum Bochum, St. Josef-Hospital, Institute for Neuroradiology.

The Institute of Neuroradiology (Director: Prof. Dr. med. Carsten Lukas) covers diagnostic and interventional neuroradiology with a focus on multimodal diagnostics of the entire spectrum of diseases. The NiRIMS (Neuroimaging Research in Multiple Sclerosis) working group based at the Institute is an integral part of regional MS research at the Ruhr University Bochum and cooperates with numerous national and international institutions. It is also part of the core research area of neuroscience at the Ruhr-Universität Bochum.

YOUR TASKS WILL INCLUDE

- Development, optimisation and technical support of advanced multimodal MRI sequences, including multi-shell diffusion-weighted imaging (DWI, DTI), functional imaging (fMRI, BOLD), arterial spin labelling (ASL) and magnetic resonance spectroscopy (MRS)
- Methodological development of new techniques for quantitative tissue characterisation
- Providing supervision and technical support for the 3 Tesla MRI research scanners of the RDN: primarily for our new Siemens PRISMA system (at IFL) and on the short-term, for our Philips Achieva 3T X-Scanner (until its deactivation in 2024)
- Supporting sequence implementation and the adaptation of sequence parameters from the Philips system to the Siemens Scanner
- Technical support of neuroscientific fMRI and quantitative MRI studies
- Developing your own research projects as well as participating in existing interdisciplinary MR-based research activities, publication and giving presentations at national and international conferences

YOUR QUALIFICATIONS

- We are looking for highly motivated applicants with a Master's / Diploma degree in physics, biology, biomedical engineering or similar and a technical expertise in MRI, ideally with a completed PhD
- Proven qualifications in the set-up, performance and analysis of structural and functional MRI as well as MRS in humans. Expertise in simultaneous EEG/fMRI recordings and MRI brain stimulation approaches would be an advantage
- Expertise in pulse programming of MRI sequences
- Publication activities and experience in acquiring third-party funding would be an asset
- Coordination and organisational skills, ability to work in a team and a high degree of motivation to work independently in interdisciplinary project teams
- A very good command of written and spoken English is required (C1 level CEFR); basic knowledge of German would be helpful, but is not essential

WHAT YOU CAN EXPECT

- A full-time position that is initially limited to 5 years, with a possibility of extension
- Remuneration in accordance with the AVR Caritas, including Christmas and holiday bonuses, predominantly employer-financed company pension scheme with the Kirchliche Zusatzversicherungskasse Köln and the possibility of private pension fund with the KlinikRente
- Innovative, wide-ranging neuroscientific research opportunities with scope for personal scientific development, with the opportunity to pursue a doctorate, if applicable
- A network of highly motivated interdisciplinary project teams
- Extensive opportunities for further qualification
- Family-friendly working place conditions and flexible working hours
- Corporate benefits: various discounts from well-known suppliers for private purchases
- Discounts on exercise and fitness offers at the in-house RuhrSportReha and the Oase Health Club Bochum

YOUR NEXT STEP

Interested? Then we look forward to your application until 15.03.2023. Your electronic application should include: a motivation letter, curriculum vitae, and copies of certificates and transcripts of academic degrees, as well as the contact data of two potential referees.

Please send your application to Prof. Carsten Lukas in a single pdf document to the e-mail address: rdn-mri@klinikum-bochum.de

Bewerbungen geeigneter schwerbehinderter Menschen und diesen Gleichgestellten im Sinne von § 2 SGB IX sind willkommen!



Further information at www.klinikum-bochum.de or at:

Excellent in clinic, teaching and research

The Katholisches Klinikum Bochum is a maximum-care hospital group and operates ten facilities. At the six locations St. Josef Hospital, St. Elisabeth Hospital, St. Maria Hilf Hospital, Marien Hospital Wattenscheid, Martin Luther Hospital and the Blankenstein Clinic with a total of 1,570 beds, we treat 227,700 inpatients and outpatients every year from across the region. In our clinic network, more than 5,500 employees combine cutting-edge medicine and research.