



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 6,800 employees in one of Europe's biggest research centres and help us to shape change!

Researchers at the Cognitive Neuroscience department of the Institute of Neuroscience and Medicine (INM-3) investigate the neural mechanisms underlying motor and cognitive (dys-)function in healthy subjects and patients suffering from neurological and psychiatric disorders. Our scientific mission is to further the understanding of stroke-induced disturbances in brain networks and the development of novel brain stimulation approaches to promote recovery of function. To achieve this, we combine neuroimaging (structural/functional MRI, electroencephalography) and computational neuroscience with technical interventions (TMS) that allow us to enhance neural plasticity and neurorehabilitation.

We are offering a

PhD Position - Systems Neuroscience

Your Job:

The successful candidate will be part of a translational cooperation project led by Professor Mathias Hoehn (INM-3) and Dr Markus Aswendt (University Hospital Cologne) on the coupling of structural and functional network reorganization after stroke. This includes:

- Acquisition and analysis of ultra-high field MRI mouse brain data
- Apply and further develop in-house tools (<https://github.com/aswendt/ab>) for automated processing, graph theory and machine learning
- Interaction with a dynamic multidisciplinary team and collaborators from Psychology, Medicine, and Computational Neuroscience as well as the University Hospital Cologne
- Presentation and publication of the results at international conferences and in peer-reviewed journals

Your Profile:

- Completed study in Neuroscience, Mathematics, Informatics, Bioengineering, Physics, Psychology or related discipline
- An affinity to programming, including programming skills in Matlab and Python

We look forward to receiving your application until 09.02.2022 via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form.**

Please note that for technical reasons we cannot accept applications via email.

www.fz-juelich.de

- Previous research experience with systems neuroscience/neuroimaging techniques (psychophysics, EEG, DTI, fMRI, etc.) is desirable
- Advanced English communication skills (written and spoken)
- Intrinsic motivation, initiative, and an ability to work independently

Our Offer:

We work on the very latest issues that impact our society and are offering you the chance to actively help in shaping the change! We offer ideal conditions for you to complete your doctoral degree:

- A highly motivated group as well as an international and interdisciplinary working environment at one of Europe`s largest research centers
- Outstanding scientific and technical infrastructure – ideal conditions for successfully completing a doctoral degree
- Chance of participating in (international) conferences and project meetings
- Continuous scientific mentoring by your scientific advisor
- Participation in overarching seminars including certificates
- From bench-to-bedside: Translational research relevant for patients
- Further development of your personal strengths, e.g. through an extensive range of training courses; a structured program of continuing education and networking opportunities specifically for doctoral researchers via JuDocS, the Jülich Center for Doctoral Researchers and Supervisors: <https://www.fz-juelich.de/judocs>
- Targeted services for international employees, e.g. through our International Advisory Service

The position is initially for a fixed term of 3 years. Pay in line with 65 % of pay group 13 of the Collective Agreement for the Public Service (TVöD-Bund) and additionally 60 % of a monthly salary as special payment („Christmas bonus“). Further information on doctoral degrees at Forschungszentrum Jülich including our other locations is available at: www.fz-juelich.de/gp/Careers_Docs

Forschungszentrum Jülich promotes equal opportunities and diversity in its employment relations.

We also welcome applications from disabled persons.