



The Max Planck Institute for Multidisciplinary Sciences is a leading international research institute of exceptional scientific breadth. With more than 40 research groups and some 1,000 employees from over 50 nations, it is the largest institute of the Max Planck Society.

The research group for *Magnetic Resonance Signal Enhancement* headed by Stefan Glöggler is inviting applications for a

## **Postdoctoral Fellow (f/m/d)**

### **- New Contrast Mechanisms for Magnetic Resonance to Measure Blood Oxygenation -**

Oxygen is the fuel of life and in its absence, most cells and organisms die within minutes. Many diseases are associated with compromised blood flow (hypoperfusion) and oxygen delivery (hypoxia), including neurodegenerative diseases. The Signal Enhancement group focuses on the development of new methods and contrasts for MRI and MRS and bringing these advances to biomedical application with an ultimate goal of clinical translation. In a joint project together with the Medical Physics Group of the University Medical Center Freiburg we are aiming at developing new approaches to study blood oxygenation and its changes in diseases. Techniques in our labs that will be applied include proton spectroscopy and potentially the use of signal-enhanced/hyperpolarized  $^{13}\text{C}$  probes.

*The open position will be located at the Max Planck Institute for Metabolism Research in **Cologne** and will be associated with the Max Planck Institute for Multidisciplinary Sciences in Göttingen. The position is to be filled as soon as possible with the earliest starting date of October 2022.*

The candidate should have a strong background in physics or related disciplines and magnetic resonance imaging or spectroscopy. The position is to be filled for an initial 2 years with possibilities of extension.

### **What you will be doing**

- Developing new proton spectroscopy sequences
- Investigating relaxation effects in different (biological) media
- Collaborating with our partners from the University Medical Center Freiburg on preclinical implementations
- Optional: working with  $^{13}\text{C}$  hyperpolarization techniques

### **What we offer**

- Physics with biomedical application aiming at improving research, diagnostics, and monitoring of neurodegenerative diseases
- High-impact emerging field of research
- State of the art equipment and infrastructure  
(e.g., preclinical Bruker 9.4T MRI systems with volume resonator for  $^1\text{H}$  and  $^{13}\text{C}$  studies)

The Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. The Max Planck Society strives for gender and diversity equality. We welcome applications from all backgrounds.



Applications will be reviewed on a rolling basis until the positions are filled. Please submit your application including cover letter (explaining background and motivation), CV, transcripts, publication record and two contacts for letters of reference preferably via E-Mail as a single PDF file to

[ausschreibung38-22@mpinat.mpg.de](mailto:ausschreibung38-22@mpinat.mpg.de)

**Max Planck Institute for Multidisciplinary Sciences**  
**Research Group “NMR Signal Enhancement”**  
**Dr. Stefan Glöggler**  
**Am Faßberg 11**  
**37077 Göttingen**  
**Germany**



**Web:** <https://www.mpinat.mpg.de/gloeggler>

Information pursuant to Article 13 DS-GVO on the collection and processing of personal data during the application process can be found on our website below the respective job advertisement.