

The University of Tuebingen is one of the leading research universities in Germany. The junior research group Functional and Metabolic Brain Imaging (FMBI) is part of the Department of Preclinical Imaging and Radiopharmacy. This group is one of the pioneers in combined positron emission tomography (PET) and magnetic resonance imaging (MRI), and is one of the top PET/MR research institutions worldwide. FMBI aims at deciphering the enigmatic nature of brain function in activation and rest by applying combined PET/MR imaging. Within the framework of a DFG funded Emmy Noether Group we plan to combine electroencephalography (EEG) with PET/MR. To expand our team we are looking for:

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

### **Data analysis for simultaneous PET/MR/EEG in small animals**

Specifically this PostDoc position aims at establishing novel data analysis schemes for simultaneous small animal PET/MR/EEG. This novel system will allow measuring brain activity on multiple temporal (slow: PET, medium: fMRI, fast: EEG) and on metabolic (PET), hemodynamic (fMRI) and electric (EEG) scales. The work includes as a first step e.g. data interfacing, artefact reduction, PET/MR/EEG correlation analysis based on global signals. It will expand to more advanced strategies such as the development of small animal EEG head models, EEG source analysis and scale free brain activity methods, multimodal PET/MR/EEG data analysis. Applications will be in the area of brain connectivity research in health and disease. The applicant will have the ability to follow his own research interests in the application of this novel and unique research tool, which is not limited to data processing and analysis but can also include laboratory work. Therefore, this PostDoc project spans the entire range from implementation to application of a novel technique, allowing a multitude of insights into the exciting field of functional and metabolic brain imaging. The work will be conducted in close collaboration with national and international partners (Germany, Japan, USA). Work will be based on a 7 T MRI machine equipped with a PET-insert.

The work is at the interface of informatics and signal processing, engineering, physics, biology and medicine. We are looking for highly motivated and dedicated scientists who want to work in an international team and plans to utilize their creativity to solve questions of brain function and connectivity.

Applicants should have a PhD degree in e.g. Bioinformatics, Computer Sciences, Physics, Electrical engineering, Biophysics, Biology, Biochemistry or a related field. Prior knowledge in EEG is a plus, as well as experience in the imaging field. Good English language skills are needed to work effectively in this multidisciplinary team. Start date for the work would be around summer / fall 2016 or after mutual agreement.

Salary will be according to the German TV-L. People with disabilities are encouraged to apply. We welcome applications of women. Employment will be managed by the department of human resources, and will be subject to University regulations.

We are looking forward for your application (cover letter, CV, publication list, letter of reference) and your questions about the position per email.

Please contact: Dr. Hans Wehrl, Dipl.-Phys., [hans.wehrl@med.uni-tuebingen.de](mailto:hans.wehrl@med.uni-tuebingen.de)

University of Tuebingen, Preclinical Imaging, Roentgenweg 13, 72076 Tuebingen, Germany

Official job announcement text can be found:

[http://www.med.uni-tuebingen.de/Mitarbeiter/Karriere/Job+finden+\\_+Bewerben/Jobangebote/Wissenschaftliches+Personal.html](http://www.med.uni-tuebingen.de/Mitarbeiter/Karriere/Job+finden+_+Bewerben/Jobangebote/Wissenschaftliches+Personal.html)