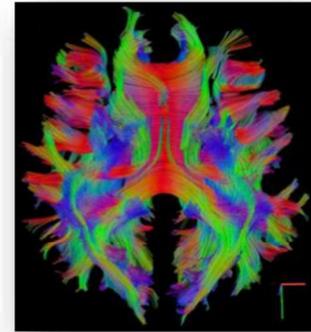
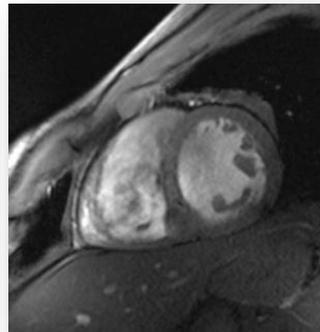




The [Department of Cardiovascular Imaging of the Comprehensive Heart Failure Center \(CHFC\)](#) develops, deploys, and performs research on a variety of biomedical imaging technologies, in particular ultra-high-field MRI of the heart and organs interacting with the heart (e.g brain). Imaging research is supported by an RF-lab for MRI hardware developments, high-performance computational cardiology and using of artificial intelligence methods for imaging data processing.

We operate the **Siemens Magnetom Terra 7T** MRI system with parallel transmit and multi-nuclei-imaging support. The Bruker Pharmascan 70/16 MRI 7T system is available for the pre-clinical studies. By special organizational measures full translational imaging workflow, i. e. from mouse over pigs to humans (and back), is available. Other clinical imaging modalities (3T MRI, PET/CT, US, etc.) are available through close local collaborations with other departments of Würzburg University and University Clinics.



We seek a researcher for working on advanced neurological 7T MRI applications in the joined project of CHFC Department of Cardiovascular Imaging with the [Department of Psychiatry, Psychosomatics and Psychotherapy \(PPP\)](#). The focus of the research project is establishment the high temporal and spatial resolution techniques for fMRI at 7T. The ideal candidate would be an enthusiastic, visionary and collaboration-oriented scientist with an intrinsic scientific motivation. Basic expertise in MR-physics and practical experience of measurements using Siemens MR-scanners (Syngo VD/VE baseline) are essential. The basic knowledge on artificial intelligence methods would be helpful. The main activities will focus on:

- Adaptation, optimization and of fMRI protocols using EPI high resolution simultaneous-multi-slice (SMS) and multi-band (MB) pulse sequences. Establishing and performing routine fMRI measurements in patients with anxiety disorder.
- Application and optimization of the advanced B_0 shimming techniques for distortion correction of the fMRI in deep brain regions. Development and application techniques for imaging distortions corrections using artificial intelligence-based techniques

Contributions to acquisition of third-party funding and close collaboration with the Department of Cardiovascular Imaging team, medical doctors of University Hospital Wuerzburg, and further scientists will be expected. We offer a full-time position (~3 years) with market conform wages (TVL-E13) in a large, multidisciplinary research center in the heart of Europe. The position is immediately available.

Candidates can submit their application documents (motivation letter, full CV including certificates, names and addresses of two references) preferably in a single PDF file via the following contact persons:

Dr. Maxim Terekhov (Terekhov_M@ukw.de)