UT Southwestern
Medical Center

The Advanced Imaging Research Center (AIRC) at University of Texas Southwestern Medical Center seeks motivated ***Postdoctoral Fellows/Research Scientists*** *in Biomedical Engineering, Computer Science, Electrical Engineering, Biomechanics, Physics, or Neuroscience.*

About the Lab and AIRC:
Dr. Wang's Lab focuses on developing novel magnetic resonance imaging (MRI) acquisition and analysis methods on the central nervous system (CNS) and musculoskeletal system. These MRI technologies facilitate the broad applications for various brain disorders, including Alzheimer's disease, autism spectrum disorder, and multiple sclerosis. Dr. Wang's lab also develops novel non-invasive imaging biomarkers to detect the early degradation of articular cartilage to extend the current knowledge about the cartilage composition and the interaction between bound water and macromolecules in the cartilage matrix.

Our work is supported by NIH R01 Award and Ralph W. and Grace M. Showalter Research Award. AIRC has three preclinical MRI (4.7T, 7 T, 9.4T), an RF engineering lab, three human 3 T (Philips, Siemens and GE) and human 7T (Philips) scanners. The scanners provide an unprecedented opportunity to perform cutting-edge, high-resolution imaging for neuroscience research, musculoskeletal disorders, and renal diseases. Candidates also have opportunities to work with our collaborators in Peter O'Donnell Jr. Brain Institute, Radiology department, Neuroscience department, and collaborations with other institutes.

Qualification:
We are seeking candidates with an interest in pulse sequence development, image reconstruction, and/or image/data analysis. Desirable qualifications include programming skills in Matlab, Python, and/or C/C++, as well as a strong publication record and proficiency in imaging data processing using software tools like FSL, ANTs, and MRtrix3. Applicants should have a background in Medical Physics, Electrical Engineering, Biomedical Engineering, Computer Science, Neuroscience, or related disciplines. Specific research projects include: (1) Developing novel high-resolution MRI (dMRI and QSM) acquisition and analysis methods; (2) Validating MRI findings through conventional histology and 3D Light-sheet Microscopy (LSM); (3) Developing AI/ML techniques for imaging acquisition, reconstruction, and analysis; (4) Applying high-resolution MRI techniques to study neurodegenerative diseases.

How to Apply:
Salary will follow NIH guidelines and can be negotiated with experience. Interested applicants should email Dr. Nian Wang (nian.wang@utsouthwestern.edu) with a cover letter, your CV and contact information for three references.
Lab Website: https://labs.utsouthwestern.edu/multimodality-imaging-and-analysis-laboratory-mudia

<u>If you plan on attending ISMRM 2024, we would be delighted to have the opportunity to meet you in person at the conference.</u>