



**Postdoctoral Fellow/Staff Scientist in Neuroimaging
Martinos Center for Biomedical Imaging, Massachusetts General Hospital
McLean Imaging Center, McLean Hospital
Harvard Medical School**

Postdoctoral fellow or Research Associate positions

Positions are available at the Athinoula A. Martinos Center for Biomedical Imaging (Massachusetts General Hospital) and the McLean Imaging Center (McLean Hospital), affiliated with Harvard Medical School. Successful candidates will engage in studies involving MRI/MRS technique developments and translational imaging. The primary focus of research is on developing cutting-edge neuroimaging approaches and studying neuropsychiatric disorders. This research aims to explore the convergent evidence and identify imaging/molecular biomarkers related to molecular mechanisms, brain circuits and excitation/inhibition balance, examining alterations of brain structure, function, metabolism, inflammation, and the glymphatic system throughout disease progression and treatment response, including TMS and other neuromodulations. A significant aspect of the work will involve 7T Terra and 3T Prisma Siemens scanner, where the candidate will design, sequence programming and implement data acquisition protocols.

We are looking for candidates with skills and passion in one or more of the following areas:

- 1. MRI/MRS Techniques Development:** The candidate will develop, implement experimental protocol of data acquisition, processing and analysis pipeline, particularly for glymphatic and fast metabolic imaging.
- 2. Imaging Data Processing using Machine Learning Approaches:** In addition to the conventional methodologies, candidates will work with multimodal neuroimaging data (e.g., T1/T2, DTI, ASL, fMRI, and MRS) collected from hundreds of subjects in longitudinal studies to outline biological development trajectories and identify biomarkers for the disease progression, treatment engaged targets, and response.

The specific area of focus will be tailored to the candidate's experience and interests. The candidates should have a background in biomedical engineering, physics, neuroscience, or a related field with experience in MRI/MRS. Proficiency in MATLAB, Python, imaging/spectroscopy sequence development and data analysis, or machine learning is highly desirable.

What we offer:

1. A competitive salary, commensurate with experience.
2. Support to develop individual research interests for grant applications, and career development
3. Opportunity to work with multidisciplinary team of imaging physicists and clinical physicians, extending the boundaries of knowledge in cutting-edge neuroimaging and neuropsychiatric disorders study.
4. Access to an excellent education system and a robust network of collaborators within MGH and McLean (Mass General Brigham), and Harvard Medical School.

To be considered, please send your CV, a cover letter with a statement of research interests, and three references to:

Fei Du, Ph.D.

Email: fd�@mclean.harvard.edu

Associate Professor, Harvard Medical School

Director, Laboratory for High-Field Imaging and Translational Neuroscience

Director, Advanced MR Imaging and Spectroscopy Program

McLean Imaging Center, McLean Hospital

Ethanol A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital