

Postdoctoral Research Associate – Preclinical MRI & Multimodal Neuroimaging

Yale School of Medicine – Department of Radiology and Biomedical Imaging

Yale Biomedical Imaging Institute, New Haven, Connecticut

A Postdoctoral Research Associate position is available in the laboratory of Basavaraju G. Sanganahalli, PhD, Assistant Professor of Radiology and Biomedical Imaging to work on a newly funded NIH R01 project focused on multimodal neuroimaging of early brain dysfunction in Alzheimer's disease (AD). The project combines preclinical MRI, fMRI, MRS, behavioral neuroscience, and molecular/histological approaches to identify early imaging and metabolic biomarkers of neurodegeneration and olfactory dysfunction in animal models of AD.

Research Focus: The candidate will conduct multimodal preclinical MRI/fMRI, DTI, and MRS studies in Alzheimer's disease rodent models, including longitudinal imaging and functional connectivity analysis. The work will integrate imaging, behavioral, metabolic, and molecular data using advanced computational and statistical approaches to identify early biomarkers of neurodegeneration.

Qualifications: PhD in Biomedical Engineering, Neuroscience, Neuroimaging, Physics, or Biophysics, with strong quantitative and analytical skills and proficiency in MATLAB and/or Python. Experience with preclinical MRI/fMRI/MRS, rodent models, image processing, functional connectivity, and multimodal data analysis is preferred; experience with R, machine learning, or advanced statistics is a plus.

Training and Research Environment: The successful candidate will receive interdisciplinary training in preclinical neuroimaging, MRI physics, neuroscience, computational data analysis, and multimodal biomarker development. The Yale Small Animal MRI Core provides access to high-field MRI (9.4T and 11.7T) systems and specialized capabilities for structural MRI, fMRI, DTI, ASL, MRS, and metabolic imaging. The position offers opportunities to develop expertise in independent research, manuscript preparation, grant development, conference presentations, and collaborative multidisciplinary research.

How to Apply: Interested candidates with strong quantitative skills and a background in biomedical engineering, neuroscience, or preclinical neuroimaging should send their CV, brief cover letter, and contact information for 2-3 references to basavaraju.ganganna@yale.edu. Applications will be reviewed on a rolling basis.