

Postdoctoral Fellow Position at the Medical College of Wisconsin (Job ID 24457)

The Department of Psychiatry and Behavioral Medicine at the Medical College of Wisconsin (MCW) is seeking to hire a Postdoctoral Research Associate to join our team. The applicant must be willing and able to focus on advanced functional and structural magnetic resonance imaging (MRI) analysis in normal aging and neuropsychiatric disorders such as late-life depression (LLD) and neuropsychiatric symptoms (NPS) in Alzheimer's disease (AD).

Dr. Goveas's imaging lab conducts functional and structural neuroimaging experiments to identify the brain network abnormalities underlying LLD and examine the network correlates of treatment response to specific interventions in LLD. His lab also conducts imaging studies to determine the neurobiological correlates of NPS in AD. The long-term goal is to identify and validate brain network measures as diagnostic and treatment response biomarkers in LLD and NPS in AD. Potential research projects include but are not limited to analysis of task functional MRI, resting-state functional connectivity MRI, arterial spin labeling, flair-based white matter hyperintensities, and diffusion tensor imaging datasets. The postdoctoral fellow will report to Joseph S. Goveas, MD, and work closely with Shi-Jiang Li, Ph.D. and Gang (Jeff) Chen, Ph.D (Biophysics), Cecilia Hillard, PhD (Neuroscience Research Center) and Yang Wang, Ph.D. (Radiology & Center for Imaging Research).

Primary Functions

- Combine multimodal state-of-the-art brain imaging and behavioral datasets using advanced computational modeling and conduct data analysis.
- Plan, design and execute novel neuroimaging research studies, procedures and protocols, and modify and improve existing ones.
- Coordinate data collection, storage and database maintenance, and ensure timely data transfer to NIH data archive.
- Ensure accurate implementation of imaging research protocols, and manage imaging projects.
- Participate in discovery projects, and coordinate research study activities.
- Collaborate closely with the MCW Center for Imaging Research (CIR), Biophysics, Psychiatry, Pharmacology and Neurology researchers, including imaging biostatisticians and physicists.
- Write and prepare scientific reports and outcome findings, and manuscripts.
- Participate in meetings in which you will evaluate/interpret the validity of data, develop methodologies, and design and evaluate lab procedures.
- Oversee the work of laboratory personnel including training and development as well as daily work direction, delegation and establishing priorities.

Requirements

- Ph.D. with expertise in computer science, MR physics, MR image processing, and quantitative analysis is essential.
- Experience in machine learning and deep learning techniques, and pulse sequence programming are desirable.
- Strong computer and programming skills; specifically, proficiency with the Linux operating system, and software such as AFNI, SPM, MATLAB, FSL, Freesurfer etc.
- Strong foundation in statistical packages including SAS, SPSS and/or R to conduct data analysis.
- Excellent English reading, writing, speaking and comprehension skills.
- Excellent skills in preparing scientific reports, abstracts, manuscripts and grant submissions.
- An aptitude in mentoring students and research assistants.

To apply

Please send a CV and letter of interest, which describes your research experience and interests to Dr. Joseph S. Goveas: jgoveas@mcw.edu. Excellent references are required.