



Postdoctoral Research Fellowship in Neuroimaging Grief & Resilience

DREAM Lab

The DREAM (Developing Resilience to Ease Anguish in Mourning) Lab, led by Dr. Joseph Goveas within the Department of Psychiatry and Behavioral Medicine at the Medical College of Wisconsin, is seeking a **Postdoctoral Fellow** to join our multidisciplinary neuroimaging research team. Our lab's mission is to uncover neurobiological biomarkers predictive of Prolonged Grief Disorder (PGD) onset and treatment response. With an extensive longitudinal dataset already collected, including multimodal MRI (e.g., resting-state connectivity, DTI, quantitative morphometry, task-induced BOLD activation, cerebral blood flow), along with detailed clinical and behavioral data, we are scaling up analytic efforts to answer fundamental questions about how grief unfolds over time—especially in older adults—and what differentiates resilient adaptation from PGD.

Current projects include developing predictive models of chronic grief outcomes in acutely grieving adults, characterizing the heterogeneity in grief trajectories, and investigating how targeted interventions modulate brain networks and relate to clinical improvement in PGD.

The Fellow will contribute to the development of **computational brain models** of grief and resilience in older adults, participating in multiple projects that employ advanced functional magnetic resonance imaging (fMRI) techniques to investigate brain network mechanisms underlying diverse grief trajectories, including adaptive (resilient) responses and complications such as PGD. This position also offers a unique opportunity to work with rich, multimodal longitudinal datasets from both acutely and chronically grieving adults.

This position is supported by appropriate levels of compensation and benefits. The postdoctoral appointment is intended to be temporary (≤ 5 years), not including family medical leave or maternity/paternity leave. MCW is an equal opportunity employer.

Primary Responsibilities

- Perform advanced computational analyses on longitudinal brain imaging and behavioral datasets.
- Design, implement, and refine innovative neuroimaging data processing pipelines.
- Report to the Principal Investigator and collaborate with multidisciplinary teams across the Center for Imaging Research, and departments of Psychiatry, Biophysics, and Radiology.
- Lead manuscript preparation and contribute to high-impact scientific publications.
- Present at scientific conferences and engage in regular meetings with the PI and research team to interpret findings and optimize methodologies.

Qualifications

PhD (or equivalent) in computer science, applied mathematics, image processing, engineering, or computational neuroscience is required. Programming and prior experience with neuroimaging data analysis is required. Proficiency in Python is required; familiarity with Linux environment and writing Bash scripts is expected. Strong foundation in statistical modeling and data analysis, including experience with longitudinal modeling, machine learning methods, subgroup analysis, or other advanced modeling techniques is highly desirable. Experience with neuroimaging tools such as AFNI, SPM, FSL, Freesurfer, or similar is a plus. Strong written and oral scientific communication skills required.

To Apply:

Send a CV with bibliography and letter of interest (describing your research experience and interests) to Dr. Joseph S. Goveas: jgoveas@mcw.edu.

References and a copy of the doctoral degree are required.

More about the lab: www.mcw.edu/DREAM