

Postdoctoral Scholar in Radiology-Brain Tumor Imaging Lab

University of California Los Angeles

Requisition Number: JPF11059

The Department of Radiological Sciences at UCLA is seeking a highly motivated researcher to join the Brain Tumor Imaging Lab as a Postdoctoral Scholar. The successful candidate will work closely with Dr. Jingwen Yao and a cross-disciplinary team on NIH-funded research in neuroimaging biomarker development, with a primary focus on Huntington's disease (HD). The researcher will also contribute to other ongoing projects in brain tumor imaging, movement disorders, and epilepsy.

The primary project is supported by an NIH R01 grant aimed at characterizing circuit-level spatiotemporal alterations in HD using advanced multimodal MRI. The research spans three interconnected aims: (1) identifying regional and tract-based multimodal imaging features across HD disease stages; (2) defining imaging predictors of domain-specific cognitive, motor, and behavioral symptoms; and (3) developing a spatiotemporal model to map individualized disease progression. This is a prospective, multi-center study conducted at UCLA and UCSF, leveraging advanced imaging techniques including QSM, multi-shell diffusion MRI, resting-state fMRI, and MR spectroscopic imaging. In addition to the HD project, the candidate will contribute to other neuroimaging research including novel MRI sequence and imaging marker development to explore the physiological and pathological processes involved in primary and metastatic brain tumors, as well as other neurological diseases.

The UCLA Radiology Department offers access to 40+ clinical MRI scanners across various imaging centers/clinics in the greater Los Angeles region. At the main campus of UCLA, there are 7 clinical/research Siemens scanners at 3T and 1.5T, one clinical GE 3T scanner, as well as one 3T Siemens scanner exclusively for research purposes. In addition, a Siemens 3T MR-PET scanner for clinical/research and a small animal Bruker 3T scanner with high gradient performance are also available. With strong interdisciplinary links between Radiology and various campus and clinical departments, the lab provides a unique opportunity to work with a diverse group of engineers, basic scientists, radiologists, neurologists, and neurosurgeons.

Key Responsibilities:

- Lead independent research projects and support collaborative studies
- Design, implement, and test novel MRI sequences, reconstruction methods, or post-processing techniques for research and clinical translation
- Develop and validate disease progression models and other data-driven analyses in large-scale multimodal datasets (imaging, phenotypical data, genetics data)

- Author scientific publications and contribute to grant proposals
- Supervise trainees and maintain research infrastructure
- Comply with UCLA guidelines for lab safety and human subject research
- Communicate effectively with team members and present findings verbally and in writing

To apply, please visit: <https://apptrkr.com/7200395>

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