



Faculty Position to Lead Neuroimaging Research Program

Dept. of Radiology, Northwestern University, Chicago, IL, USA

The Department of Radiology at Northwestern University Feinberg School of Medicine seeks a full-time tenure track Investigator at the rank of Associate Professor or Professor with a primary emphasis in **neuroimaging**, especially **advanced Magnetic Resonance Imaging (MRI)**. Expertise in Computed Tomography (CT) and Positron Emission Tomography (PET) is also highly valued, and candidates with strengths across multiple modalities are encouraged to apply. The successful candidate will establish and lead a world-class, integrated neuroimaging program within a vibrant translational research environment that integrates advanced imaging methodology with clinical and population-based investigation.

The appointee will guide and expand multidisciplinary neuroimaging initiatives that leverage complementary strengths of MRI, CT, and PET to advance comprehensive structural, functional, metabolic, and molecular brain imaging. The program will foster close collaboration among neuroradiology, neurology, neurosurgery, psychiatry, psychology, and related disciplines. Research efforts will emphasize innovation across clinical and translational science, addressing critical areas such as neuro-oncology, Alzheimer's disease and related dementias, cognitive decline, pain, normal aging, stroke, and neurovascular disease. This leadership role entails shaping the strategic direction of the program from technical innovation in acquisition and reconstruction, to quantitative analytics, multimodal data fusion, and clinical implementation.

The ideal candidate will maintain an active, externally funded research program and demonstrate a strong track record in the development, validation, and clinical translation of advanced neuroimaging techniques across modalities, with particular emphasis on MRI. Expertise in development and clinical application of advanced MRI techniques, multimodal image acquisition and reconstruction, quantitative biomarker development, hybrid imaging (e.g., PET/MR), and cross-platform harmonization is highly desirable. Experience in advanced data analysis - such as biomedical modeling and machine learning - to enhance image interpretation and outcome prediction is strongly encouraged.

Qualified candidates will hold a PhD or MD/PhD with focus in physics, engineering, chemistry, computer science, medical imaging, or a related field. An exemplary record of peer-reviewed publications and a successful demonstration of extramural funding are essential. The ideal candidate will demonstrate deep expertise in imaging methodology - such as MRI pulse sequence development, CT/PET quantitative imaging techniques, molecular imaging strategies, and clinical translational research - alongside a proven record in advancing neuroimaging techniques and model-based image analysis. The successful candidate will work in a highly collaborative environment alongside physicists, engineers, diagnostic and interventional radiologists, neuroscientists, and physician-scientists across multiple departments and subspecialties.

Northwestern Environment and Resources: The Northwestern Feinberg School of Medicine provides an exceptional infrastructure for translational imaging research through the Center for Translational Imaging (CTI), a core facility on the Chicago campus operated by the Department of Radiology. The CTI houses five dedicated research MR systems, including full-body 1.5T and 3T scanners and a pre-clinical 7T system. Investigators also have access to more than 20 clinical MR scanners, a 3T PET-MRI system, and three state of the art PET-CT systems at Northwestern Memorial Hospital. A strong research collaboration with Siemens Healthineers further enables rapid translation of novel imaging technologies into clinical studies and practice.

The neuroimaging program is embedded within a highly collaborative clinical and research ecosystem. Key partners include the recently inaugurated Simpson Querrey Brain Health Institute with a focus on neurovascular biology and precision medicine for imaging brain health and preventing cognitive decline and brain injury; the Mesulam Institute for Cognitive Neurology and Alzheimer's Disease, a leading center for research in neurodegenerative disorders; the Ken & Ruth Davee Department of Neurology, with specialized divisions spanning stroke, epilepsy, movement disorders, neuro-oncology, and behavioral neurology; and the Lou and Jean Malnati Brain Tumor Institute, which offers one of the nation's largest portfolios of brain tumor clinical trials and advanced therapeutic modalities, including Gamma Knife radiosurgery and proton beam therapy. Together, these resources provide a robust foundation for innovative, multidisciplinary neuroimaging research.

The start date is negotiable, and the position will remain open until filled. At Northwestern, we are proud to provide meaningful and competitive benefits. Visit us at www.northwestern.edu/hr/benefits to learn more.

To apply (Job ID53745):

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