



Postdoctoral positions in preclinical neuroimaging at UTSW

The **preclinical neuroimaging laboratory** of Dr. Nan Li ([L^NAB](#)) in the Advanced Imaging Research Center (AIRC) at the University of Texas Southwestern Medical Center (UT Southwestern) is seeking **motivated postdoctoral fellows** to join our team. The L^NAB focuses on developing novel whole-brain fMRI methods to integrate molecular and system neuroscience and solve brain science problems. Particularly, we are interested in understanding the neural mechanisms of reward, learning, and memory in rodents' brains. Our work is supported by the UT Southwestern Endowed Scholar Award, the UT STARS Award, the Brain and Behavioral Research Foundation, and the Welch Foundation. AIRC has three preclinical MRI scanners (4.7T, 7 T, 9.4T), an RF engineering lab, three human 3 T (Philips, Siemens and GE) and human 7 T (Philips) scanners.

Specific research projects include: (1) Develop MRI imaging acquisition and analysis methods for engineered-hemodynamic fMRI, particularly for genetic-targeted functional connectivity in rodents' brains; (2) Study the reward and learning system by integrating multimodal technologies - fMRI, optical imaging, optogenetics - in health and brain disorders, such as depression, obsessive-compulsive disorder, and Parkinson's disease; (3) Innovative projects initiated by the trainee while aligning with the general goal of the lab.

Qualifications: Candidates must have a recent Ph.D. degree in biomedical engineering/bioengineering or an equivalent doctoral degree in electrical and computer engineering or a related field before the effective date of the appointment. Candidates with research experience in small animal MRI are preferred. Required qualifications also include strong motivation and communication skills and proficient programming skills (MATLAB, Python, etc.). Postdoctoral trainees are strongly encouraged to apply for fellowships, attend and present at scientific conferences. Information on the UT Southwestern postdoctoral training program, benefits, and a virtual tour can be found [here](#).

Dr. Nan Li is an endowed Thomas O. Hicks Scholar in Biomedical Research at UT Southwestern, in the Advanced Imaging Research Center, the Department of Neuroscience, and O'Donnell Brain Institute. Dr. Li holds an adjunct appointment at the Bioengineering Department, School of Engineering and Computer Science at the University of Texas at Dallas (UTD). Previously trained in the fields of MRI imaging and neuroscience, Dr. Li's published work focused on dopamine-sensitive fMRI (**Li and Jasanoff, *Nature* 2020**), genetic-targeted hemogenetic fMRI (**Ghosh*, Li*, et al. *Nature Neuroscience*, 2022**), and neural mechanisms underlying cortical plasticity (**Li et al., *PNAS* 2011, Li et al., *Journal of Neurotrauma* 2014**).

Interested applicants should email Dr. Nan Li (Nan.Li@utsouthwestern.edu) with your CV, contact information for three references, and a brief statement of your research achievements, interests, and career plans.

Nan Li, Ph.D.

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[Nan Li, Ph.D. - Faculty Profile - UT Southwestern](#)

<https://www.nlab-utsw.org/>

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