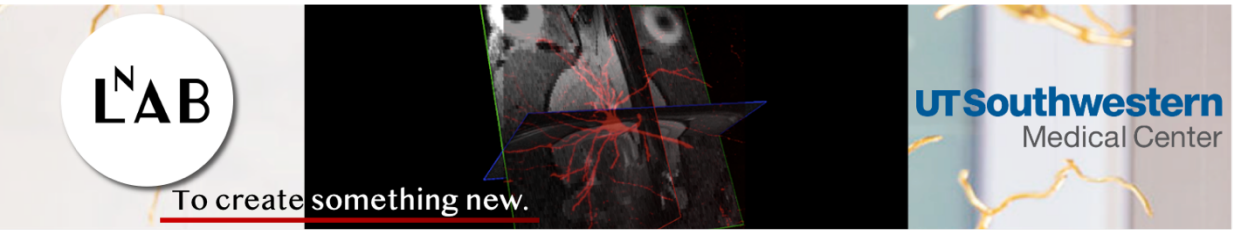

Postdoctoral positions in Neuroimaging at UTSW

The neuroimaging laboratory of Dr. Nan Li (L^{N}AB) at the University of Texas Southwestern Medical Center (UTSW) invites **applications for several postdoctoral training positions**. The L^{N}AB starts in April 2021 at the Advanced Imaging Research Center (AIRC), the Department of Neuroscience and the O'Donnel Brain Institute at UTSW. Our mission is to develop novel whole brain imaging methods to integrate molecular and system neuroscience and solve brain science problems. We are specifically interested in understanding the neural mechanisms of reward, decision, and motivation in rodents' brain. With strong support from AIRC, the lab can access the most state-of-art resources for the preclinical small animal scanners (9.4T, 7T, 3T), PET, SPECT, and other imaging modalities. Supported by the Endowed Scholar Program at UTSW, our lab has access to all 18 core facilities on campus with the latest equipment and technologies.

Potential projects include: (1) **Develop genetically targeted functional MRI methods**; (2) Investigate cell-type-specific circuit-specific dynamic functional connectivity in awake animals; (3) Study the reward and learning system by integrating multimodal technologies - fMRI, electrophysiology, optogenetics - in health and brain disorders, such as addiction, obsessive-compulsive disorder, and Parkinson's disease; (4) Innovative projects initiated by a postdoctoral trainee while aligning with the general goal of the lab.

Qualifications: Candidates must have a Ph.D. degree in biomedical engineering/bioengineering, or equivalent doctoral degree in neuroscience, biochemistry, or a related field, prior to the effective date of the appointment. Highly motivated and talented candidates are welcome to apply. Background with **Synthetic Biology and experience with molecular imaging probes** will be a plus.

Dr. Nan Li is an Assistant Professor in the Advanced Imaging Research Center, the Department of Neuroscience and O'Donnel Brain Institute at UTSW. Dr. Li received her B.S. from Shanghai Jiao Tong University, and her Ph.D. from the Johns Hopkins University School of Medicine, both in Biomedical Engineering. As a graduate student co-supervised by Dr. Galit Pelled and Dr. Nitish Thakor, she established an optogenetic fMRI strategy to study cortical plasticity following peripheral nerve injury (*Li et al., PNAS 2011*). As a postdoctoral associate in Dr. Alan Jasanoff's group at MIT, she focused on studying brain circuitry using novel molecular fMRI techniques, with particular emphasis on functions of the neuromodulator dopamine (*Li and Jasanoff, Nature 2020*). Nan was selected as 20 McGovern Rising Stars at MIT in 2020. She is the recipient of the Harvard Chinese Life Sciences Distinguished Research Award, the Stanley Fahn Research Fellowship, Women in Bio Robbie Melton Scholarship Award, the UT System Rising STARs Award, and Endowed Thomas O. Hicks Scholar in Medical Research.

The L^{N}AB will engage to provide trainees a supportive and inclusive environment. Regardless of gender, race, origins, prior knowledge, we will try to make sure all lab members feel they belong to the lab family. Postdoctoral trainees are strongly encouraged to apply for fellowships, attend and present at scientific conferences. According to the new UTSW policy, we will cover the relocation fee up to $5k.

Interested applicants should send an email to 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.