

Postdoctoral Fellow in Multimodal Imaging of Alzheimer's Disease

NYU Langone Health's Department of Radiology invites applications for a postdoctoral fellowship in multimodal imaging of Alzheimer's disease (AD). The successful candidate will combine cutting-edge multimodal MRI and MRS techniques with positron emission tomography (PET) to further the understanding of the pathogenesis and progression of AD.

AD is the most common form of dementia and a major challenge to modern healthcare. Deeper understanding of disease mechanisms and better ability to predict the progression of AD are crucial to improving patient management and to developing effective therapies. This research will focus on MR-derived measures of intracellular viscosity and their use as markers for disease progression.

Job Responsibilities

- Acquiring brain MRI and MRS data from elderly subjects
- Post-processing of MRI and MRS data, which may include resting-state BOLD-fMRI connectivity, imaging of brain iron, and multi-parametric MRS (relaxation times and concentrations)
- Combining Aß- and tau-PET data with MRI/MRS
- Using advanced statistical methods to analyze and understand the rich multi-modal neuroimaging data generated by the project (i.e. connectivity analyses of BOLD-fMRI data, mixed models, model-free statistical methods)
- Manuscript writing
- Staying informed about current developments and advancements in the field through literature review and conferences

Required Qualifications

- Knowledge of post-processing and analysis of at least one of the following modalities: resting-state BOLD-fMRI connectivity, MRS, quantitative susceptibility mapping (QSM), and/or the imaging of iron concentrations
- Excellent writing skills
- Experience with PET neuroimaging data is an advantage

Salary and Benefits

The annual salary range for this position is \$70,000-75,000. NYU Langone Health offers a <u>competitive benefits package</u> that includes health, dental, and vision insurance, a prescription drug plan, commuter plans, and subsidized housing based on availability. We welcome both domestic and international applicants and provide support for visa applications.

About Us

The project is led by <u>Ivan Kirov</u>, <u>PhD</u> and <u>Assaf Tal</u>, <u>PhD</u>—researchers in NYU Langone's *Radiology Department* and its *Center for Advanced Imaging Innovation and Research*—and is a collaboration with NYU Langone's *Alzheimer's Disease Research Center*.

The project team is multi-disciplinary, including expertise in pulse sequence design, clinical translation, neuroscience, fluid biomarkers and PET.

Environment

The wider research environment has outstanding resources and provides opportunities for further collaborations and career development.

The <u>Radiology Department</u> and its associated <u>Center for Advanced Imaging Innovation and</u> <u>Research</u> (CAI²R, pronounced *care*) are home to approximately 150 full-time personnel dedicated to imaging research, development, and clinical translation. Our research facilities include four Siemens MRI systems, a cyclotron, two state-of-the-art radiochemistry laboratories, and a fully equipped radio frequency engineering laboratory.

The <u>Alzheimer's Disease Research Center (ADRC)</u>, is one of the oldest and largest ADRCs in the United States. It leverages the strengths of the national ADRC network to provide large numbers of samples and standardized clinical, cognitive and biomarker data from well-characterized participants.

To Apply

Email Dr. Kirov at "Ivan.Kirov@nyulangone.org", with an academic CV and contact information of 2-3 professional references, one of whom is the candidate's thesis advisor.

Center for

Advanced Imaging

Innovation and Research



