A postdoctoral associate position in neuroimaging research

A postdoctoral associate position is currently available in the Department of Neurology at the University of Rochester School of Medicine and Dentistry in Rochester, NY, starting from May 2024. Under the guidance of Drs. Uddin and Schifitto, the postdoctoral associate will be working on the development of novel MRI post-processing tools for neurological diseases including HIV and cerebral small vessel disease.

Primary research areas encompass the following:

1. Development of a novel automated image processing pipeline for brain artery segmentation and feature extraction from MR angiography using machine/deep learning.
2. Development of novel image processing and analysis methodologies, including multi-compartment diffusion MRI modeling such as neurite orientation dispersion and density imaging (NODDI) utilizing machine/deep learning.
3. Development of image processing pipeline for multimodality MRI integration and exploration of their relationships with cognitive performance and blood markers.

Primary responsibilities include:

1. Utilize and extending state-of-the-art MR imaging and angiography, statistical, and data analytic tools to analyze multimodal imaging in clinical populations.
2. Contribute to data collection, management, and analysis, including image segmentation, multi-parametric cohort analysis, and the translational application of developed tools to study patients.
3. Contribute to MRI protocol development and performing quality control of the data.
4. Participating in study team meetings and providing updates on project status and changes in imaging requirement as needed.
5. Contributing to the development of manuscripts and grant applications.

Eligibility Requirements: Applicants must have a recent Ph.D. in electrical and computer engineering, biomedical imaging, medical physics, or a related discipline, along with demonstrated prior research experience evidenced by first-authored peer- reviewed publications. Strong organizational skills, a high degree of independence and initiative, superb communication skills, excellent computer proficiency, and the ability to collaborate effectively with other group members, and collaborators are essential. Experience in image processing (e.g., MATLAB, python, and image analysis software packages) is essential. The ideal candidate will be highly motivated, reliable, and equally productive when working independently or cooperatively.

Location, Time Frame and Salary: This appointment will be made through the University of Rochester Department of Neurology, Rochester, NY, and is funded by NIH. The position is initially for one-year of commitment with the possibility of a longer-term extension pending performance and funding. Salary and benefits will be commensurate with qualifications and experience, following the guidelines set by the University of Rochester.

How to Apply: Applicants should email a CV along with details about recent research interests and activities to Dr. Giovanni Schifitto (giovanni_schifitto@urmc.rochester.edu) and Dr. Md Nasir Uddin (nasir_uddin@urmc.rochester.edu).