Postdoctoral Position in Breast Cancer Diffusion MRI

NYU Grossman School of Medicine is one of the nation's top-ranked medical schools. For over 175 years, NYU Grossman School of Medicine has trained thousands of physicians and scientists who have helped to shape the course of medical history and enrich the lives of countless people. An integral part of NYU Langone Health, the School of Medicine is committed to improving the human condition through medical education, scientific research, and direct patient care. **The Center for Biomedical Imaging (CBI)** in midtown Manhattan, New York City, hosts the **Center for Advanced Imaging Innovation and Research (CAI^{2}R)**, and is embedded within the NYU Department of Radiology. This arrangement brings together vast resources in basic MR science (physics, engineering, mathematics) and clinical applications (radiology, medicine, neurology, oncology, etc.). Four Siemens MRI scanners are available on-site (two 3T, one 7T, and one 3T PET/MR), as well as a cyclotron / radiochemistry lab, a wet lab, and a dedicated RF laboratory. CBI researchers also work within the NCI-designated **NYU Perlmutter Cancer Center (PCC).**

Memorial Sloan Kettering Cancer Center (MSK) is an NCI-Designated Comprehensive Cancer Center and is recognized as one of the largest and most successful comprehensive cancer centers in the world. MSK is located on the Upper East Side of Manhattan and is recognized as a world leader in clinical cancer care and research. Department of Radiology has multiple GE 3T 750, Premier scanners, and a PET-MR scanner. Of these, the candidate will have access to two 3T scanners are available on-site at the Evelyn H Lauder Breast Center as well as high performance computing services.

JOB DESCRIPTION: We invite applications for a postdoctoral position in the Center for Biomedical Imaging (CBI), and Center for Advanced Imaging & Innovation (CAI2R) in the Radiology Department of NYU Langone Health, working in quantitative breast cancer imaging. The successful candidate will join a multi-disciplinary team of physicists, image processing scientists, radiologists, oncologists, and surgeons and work on breast cancer MRI with joint supervisors Eric Sigmund, PhD and Sunitha Thakur, PhD. The multi-site project aims to translate a technique of breast cancer characterization (intravoxel incoherent motion, or IVIM) for reliable use on a broad scale. Salary is commensurate with experience and includes a comprehensive benefits package. Subsidized housing within walking distance to the CBI will be offered depending on availability. Initial appointment will be for two years with potential renewals for subsequent years. The initial position will be located at NYU Langone Health and the candidate will also interface and liaison with the team at MSK led by Dr. Thakur.

Job Responsibilities will include (but are not limited to): Acquisition and analysis of advanced diffusion-weighted MRI of breast cancer tissue. Assisting in design and operation of physical phantoms for breast IVIM. Performing simulations to compare signal processing approaches for IVIM. Presentation of results at conferences and in peer-reviewed publications.

Minimum Qualifications: Candidates should have (or expect to shortly receive) a PhD in a relevant field. (physics, engineering, mathematics, etc.) and experience with relevant programming languages (C/C++, Matlab, Python or similar). Capacities for both independent work and collaboration within a multidisciplinary team are a must.
Preferred Qualifications: Experience in breast imaging, diffusion MRI or both is highly desirable. A record of peer-reviewed journal publications is recommended. Motivated individuals will have the opportunity to engage in independent research within the context of the study.

Both NYU Langone and MSK are equal opportunity and affirmative action employers committed to diversity and inclusion in all aspects of recruiting and employment. All qualified individuals are encouraged to apply and will receive consideration without regard to race, color, gender, gender identity or expression, sexual orientation, national origin, age, religion, creed, disability, veteran status, or any other factor that cannot lawfully be used as a basis for an employment decision.

Please send questions for further information or applications (in pdf format) containing (1) CV, (2) short statement of research interests in the context of prior work, and (3) contact information of 2-3 references to
    Eric Sigmund, PhD (eric.sigmund@nyulangone.org) and **Sunitha Thakur, PhD (thakurs@mskcc.org)**