

Postdoctoral Fellow — Prostate MRI AI

Center for Biomedical Imaging | Department of Radiology | NYU Langone Health

The Postdoctoral fellow will join NYU Langone's Center for Biomedical Imaging (CBI) and Center for Advanced Imaging Innovation and Research (CAIR). The predictive diagnostics group at CBI has an established program in prostate MRI AI and works closely with radiologists and urologists. Postdoctoral fellows benefit from active faculty mentorship, opportunities to lead independent research projects, and a highly collaborative, NIH-funded environment with access to large-scale prostate MRI datasets, state-of-the-art scanners, and substantial GPU computing resources.

POSITION SUMMARY

The Postdoctoral Fellow will lead independent and collaborative research in AI-based prostate MRI analysis, with an emphasis on multimodal foundation models, clinical translation, and outcomes prediction. This position is suited for a researcher who wishes to develop a program bridging technical AI methods with clinical radiology workflows. The fellow will work closely with faculty, radiologists, and other clinical collaborators to design studies, develop models, and produce high-impact scientific output in preparation for an independent research career.

JOB RESPONSIBILITIES

The Postdoctoral Fellow will be expected to:

- Lead the design, development, and evaluation of novel deep learning methods for prostate MRI, including multimodal fusion (imaging, text, clinical, genomic), AI-assisted diagnosis, and outcome prediction.
- Drive the conception and execution of original research projects with a clear path toward peer-reviewed publication.
- Contribute to the development of multimodal and foundation model architectures applied to large-scale clinical MRI cohorts.
- Collaborate with radiologists, urologic oncologists, and pathologists on translational research questions.
- Present research at national and international conferences (e.g., ISMRM, RSNA, MICCAI).
- Mentor graduate students and junior research staff.
- Contribute to IRB protocols, data use agreements, and regulatory documentation as needed.

PREFERRED QUALIFICATIONS

- PhD in biomedical engineering, electrical engineering, medical physics, computer science, or a closely related field.
- Strong publication record demonstrating expertise in medical image analysis, deep learning, or computational radiology.
- Experience with 3D deep learning for volumetric medical images; familiarity with transformer architectures, self-supervised learning, or multimodal models is highly desirable.
- Proficiency in Python and PyTorch; experience with large-scale model training on HPC infrastructure.
- Background in MRI physics, acquisition, or reconstruction is advantageous.
- Experience with clinical dataset curation, IRB protocols, and working in HIPAA-compliant research environments.
- Strong written and oral communication skills; ability to collaborate effectively with both technical and clinical audiences.

Salary: \$80,000

For consideration, forward your resume to hersh.chandarana@nyulangone.org and patricia.johnson3@nyulangone.org