

Position Announcement: Director, PET and Molecular Imaging Instrumentation (PhD Scientist)

Department of Radiology, Vagelos College of Physicians and Surgeons, Columbia University Irving Medical Center (CUIMC)

The Department of Radiology at the Columbia University Vagelos College of Physicians and Surgeons invites applications for a Director of PET and Molecular Imaging Instrumentation. This leadership role is intended for a PhD-level scientist with deep expertise in molecular imaging and translational human imaging research.

The Director of PET and Molecular Imaging Instrumentation will provide scientific vision and leadership for human PET and SPECT imaging research, with a strong emphasis on molecular imaging, theranostics, and first-in-human investigations. The successful candidate will play a central role in advancing innovation, integration, and collaborative research across the CUIMC enterprise.

Salary will be commensurate with experience and qualifications. Columbia University offers a highly competitive benefits package.

Program Highlights

Columbia's Molecular Imaging Program features a world-class **PET Center**, including two cyclotrons supporting $[13\text{N}]$, $[15\text{O}]$ target production and dual-target capabilities for $[11\text{C}]$ and $[18\text{F}]$ isotopes. The program is equipped with three state-of-the-art PET scanners for both clinical and preclinical applications and has a robust infrastructure for isotope production, tracer development, and advanced imaging protocols. Strong industry partnerships provide exciting opportunities for innovation and collaboration in imaging sciences.

Responsibilities

The Director of PET/SPECT Imaging will be expected to:

- Provide scientific and strategic leadership for PET and SPECT imaging research involving human subjects.
- Develop, lead, and sustain an independent and/or collaborative research program in molecular imaging, theranostics, or related translational imaging sciences.
- Oversee and advance first-in-human and early-phase clinical imaging studies, including novel radiotracers and imaging methodologies.
- Collaborate closely with radiochemistry, medical physics, and clinical teams to translate novel imaging agents and technologies from preclinical development to human application.
- Define and implement a strategic vision for PET/SPECT imaging innovation, including quantitative imaging, dosimetry, image reconstruction, and multimodality integration (PET/CT, PET/MR, SPECT/CT).
- Collaboratively support PET/SPECT research operations, including protocol development, scanner utilization, and optimization of imaging performance.

- Contribute to regulatory and compliance activities related to human imaging research (e.g., IRB, IND/IDE, radiation safety), in partnership with departmental and institutional offices.
- Establish and strengthen collaborations across CUIMC, including with the Herbert Irving Comprehensive Cancer Center, Biomedical Engineering, Biomedical Informatics, Neurology, Radiation Oncology, and the Irving Institute for Clinical and Translational Research.
- Promote partnerships with industry, funding agencies, and external academic institutions to accelerate innovation and translation.
- Publish high-impact, peer-reviewed research and present findings at national and international scientific meetings.
- Teach and mentor graduate students, postdoctoral fellows, residents, and junior faculty, contributing to the department's educational mission.

Qualifications

Required

- PhD in Medical Physics, Biomedical Engineering, Radiological Sciences, Chemistry, Physics, or a closely related field.
- Demonstrated expertise in PET and/or SPECT imaging, molecular imaging science, and quantitative imaging methodologies.
- Strong record of peer-reviewed publications.
- Experience conducting or supporting human imaging research.
- Demonstrated ability to work collaboratively in a multidisciplinary academic environment.

Preferred

- Experience in theranostics, radiopharmaceutical development, or translational molecular imaging.
- Track record of extramural research funding as Principal Investigator or key collaborator.
- Prior leadership or program development experience in an academic imaging environment.
- Familiarity with regulatory pathways for human imaging studies (IRB, IND/IDE, radiation safety).

Salary

Salary range is \$430,000 - \$550,000. Columbia offers a generous benefits package.

Application Instructions

Interested candidates should submit their curriculum vitae, a statement of research interests, and the contact information for three references to:

Stella Kang, MD, MS
Professor of Radiology

Vice Chair of Clinical Research
Department of Radiology
Columbia University Irving Medical Center
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Environment

The Department of Radiology at Columbia University is home to over 130 full-time faculty and performs more than one million imaging studies annually. The Molecular Imaging Program benefits from cutting-edge infrastructure, including PET scanners and cyclotrons, and a supportive environment fostering interdisciplinary collaboration.

Columbia University Irving Medical Center (CUIMC) and NewYork-Presbyterian Hospital are internationally recognized for clinical and research excellence. Columbia provides unique opportunities for collaboration across its diverse academic ecosystem and offers an exceptional quality of life in the heart of New York City.

Columbia University is an Equal Opportunity Employer. Outstanding female and underrepresented minority scholars are strongly encouraged to apply.