About This Position

A full-time postdoctoral research position is available through the Department of Radiation Oncology at the University of Miami, Miller School of Medicine. The focus of this position is development, implementation, and analysis of MRI techniques in radiation oncology for cancer of the central nervous system and other body sites. The University of Miami has the fourth ViewRay MRI-guided radiation therapy system in the world. We seek to develop and implement multi-parametric MRI (diffusion, perfusion, spectroscopy, etc) on the ViewRay system for daily measurements of cancer changes during multiple weeks of chemotherapy and radiotherapy. The ViewRay system is built on a Siemens MRI platform. Findings will be verified on high field MRI scanners available within the neighboring Department of Radiology and additional studies are also planned at 3 Tesla.

The post-doctoral mentor, Eric A. Mellon, MD, PhD, is a board certified radiation oncologist specializing in brain tumors with a PhD in MRI physics. The postdoctoral fellow would work closely with collaborators in radiology and bio-engineering. Additional faculty and staff in the department of radiation oncology will assist with image processing and data acquisition.

Minimum Qualifications

Ph.D. in a relevant life science field of study; M.D.; or other doctoral-level degree. The ideal candidate will have a background in MRI physics and experience in MRI technique development in the Siemens IDEA development environment. Other useful skills include a strong history of scientific writing for research protocols, publications, and grants. Able to simulate expected signal output from MRI pulse sequences. Experience with MRI pulse sequence development and testing. Knowledge of image analysis techniques. Experience in analysis software such as: Matlab, IDL, ImageJ, etc. Able to perform basic laboratory such as building of custom MRI phantoms. Able to convey information effectively. Able to work independently and effectively. Strong analytical skills.

UHealth—University of Miami Health System, South Florida’s only university-based health system, provides leading-edge patient care powered by the ground breaking research and medical education at the Miller School of Medicine. As an academic medical center, we are proud to serve South Florida, Latin America and the Caribbean. Our physicians represent more than 100 specialties and sub-specialties, and have more than one million patient encounters each year. Our tradition of excellence has earned worldwide recognition for outstanding teaching, research and patient care. We're the challenge you've been looking for.

Patient safety is a top priority. As a result, during the Influenza ("the flu") season (September through April), the University of Miami School of Medicine requires all employees who provide ongoing services to patients, work in a location (all Hospitals and clinics) where patient care is provided, or work in patient care or clinical care areas, to have an annual influenza vaccination. Failure to meet this requirement will result in rescinding or termination of employment.