JOB PURPOSE:
We are seeking a motivated and highly skilled research fellow to join our research team focusing on advanced magnetic resonance imaging (MRI) methods to study tumor energy metabolism and develop machine learning models for image enhancement. The successful candidate will play a pivotal role in addressing cutting-edge challenges in metabolic imaging, machine learning, and model validation.

NATURE AND SCOPE:
This staffing request is made for a postdoc (or research associate) to assist in pilot preclinical cancer imaging project under the Howard-Hopkins Comprehensive Alliance in Cancer Research, Education and Equity (H2CAREE) U54 program. The successful applicant will have strong knowledge and research background in MRI/MRS, and experience in programming languages (MATLAB, Python, R), and expertise in imaging processing and analysis. He/she will report progress to the PI on experiments and data analysis. The PIs for this project are Kofi Deh (College of Arts & Sciences) and Tsang-Wei Tu (Howard University Hospital).

PRINCIPAL ACCOUNTABILITIES:
- Perform MRS/MRI for energy metabolism research in mouse model of prostate cancer.
- Develop models for CEST MRI simulation, post-processing and data analysis.
- Collaborate with optical imaging and histology teams to validate imaging results.

CORE COMPETENCIES:
- Experience with advanced MRI techniques, particularly CEST MRI
- Development of deep learning models for image processing
- Proficiency in programming languages such as Python or MATLAB
- Experience with the application of computational fluid dynamics to organ perfusion modeling is a plus.

MINIMUM REQUIREMENTS:
- Ph.D. in Biomedical Engineering, Physics, Chemistry, Computer Science, or a related field.
- Familiarity with metabolic imaging, CEST MRI, perfusion modeling, optical imaging or other validation methods
- Excellent analytical and problem-solving skills.
- Ability to work collaboratively in a multidisciplinary research environment.

Benefits and Opportunities:
This position provides an exciting opportunity to contribute to high-impact research at the intersection of biomedical imaging and machine learning. The candidate will have access to state-of-the-art imaging facilities, mentorship from leading researchers, and opportunities to publish in top-tier journals.

How to Apply:
Interested candidates should apply at https://howard.wd1.myworkdayjobs.com/HU/job/Seeley-G-Mudd-Building-College-of-Medicine/Post-Doctoral-Fellow_JR106971-1. Inquiries can be sent to tsangwei.tu@howard.edu.

Location: Howard University
Position Type: Full-Time, Fixed-Term
We are an equal opportunity employer and welcome applicants from diverse backgrounds.