Medical Imaging Scientist - 43761

Overview

St. Jude Children's Research Hospital is one of the world's premier research and treatment centers for pediatric cancer and childhood diseases. It has been recognized by Fortune magazine as one of the "100 Best Companies to Work For" every year since 2011 and was one of The Scientist's top 10 "Best Places to Work in Academia" for 7 consecutive years.

The Department of Radiation Oncology at St. Jude is seeking a creative and highly motivated Medical Imaging Scientist who shares our passion for advancing pediatric cancer treatments to join our research team. Under the supervision and guidance of the principal investigator (faculty member), your role will focus on maximizing the therapeutic ratio in proton therapy through novel analysis and modeling of imaging, radiation dose and clinical outcome data. Your discoveries can directly impact pediatric cancer patients treated at St. Jude and the world.

The main areas of our imaging research include improving proton therapy accuracy, developing adaptive proton therapy, and assessing/predicting tumor and normal tissue response to radiation therapy in clinical trials. You will have access to our state-of-the-art imaging technology, which includes two MRI machines, a PET/CT and Spectral CT, all dedicated solely to our department.

Responsibilities
- Combine strong knowledge of medical imaging, data science, and development of pipelines and algorithms to process longitudinal multimodality imaging (MRI, PET, CT, CBCT), radiation dose distribution, and patient outcome data (derived from clinical trials)
- Develop novel applications of imaging technology for advancing tumor targeting, normal tissue avoidance and radiation treatment planning in the pediatric population
- Participate in scientific activities with high clinical relevance (e.g. imaging optimization, data collection, data analysis and modeling, phantom measurements, experimental validation, quality assurance)
- Conduct scientific research and actively contribute to publications in peer-reviewed journals and grant applications
- Collaborate with an inter-disciplinary team (medical physicists, radiation oncologists, medical imaging scientists, IT staff and software engineers, clinical research associates and radiation therapists, to name a few) to improve clinical trial data collection, data storage and management and data analysis
- Provide guidance and training to postdoctoral fellows, students, and clinical staff

Minimum Education
- Ph.D. in biomedical engineering, medical physics, computer sciences, electrical engineering, or related scientific field required
- Minimum Experience
- Two (2) year's research experience in medical image analysis and processing beyond PhD is required

- Advanced knowledge of multimodality medical imaging
- Familiarity with computational tools and advanced programming experience (e.g. MATLAB, Linux, Python, R, C/C++, Java, ITK, SPM, FSL)
- Excellent written and communication skills (evidence of first-authored scientific publications in peer-reviewed journals)

Interested Applicants should apply here: https://bit.ly/2U8awaO

EEO Statement
St. Jude is an Equal Opportunity Employer