Post-doctoral Position in Neuroimaging

Description

The laboratory of Dr. Guglielmetti in the Mallinckrodt Institute of Radiology (MIR) at Washington University School of Medicine, St. Louis is recruiting a post-doctoral research associate. The successful candidate will be involved in projects to develop and characterize new metabolic imaging approaches to monitor neuroinflammation, neurodegeneration, and response to novel therapies. There is a particular emphasis on the validation of PET/CT imaging and metabolic MRI (hyperpolarized ^{13}C magnetic resonance spectroscopy) contrast agents in models of Multiple Sclerosis and other neurodegenerative diseases. Overall, this research aims to improve our understanding of the complex interplay between the immune system, glial cells, and brain health, as well as set the stage for clinical translation of novel imaging methods.

Required Qualifications

1. Ph.D. in Neuroimaging, Biomedical Sciences, Neurosciences, Immunology or a related field, with an emphasis on brain research.
2. Knowledgeable within one or more of the following subjects: MRI, PET/CT imaging, MR spectroscopy (MRS), hyperpolarized ^{13}C MRS, MR sequence programming, metabolism, immunology, neurological disorders.
3. Ability to clearly communicate research findings through oral presentation and written publication.
4. Ability to work independently and in a collaborative manner with a diverse group of scientists and clinicians.

Preferred Qualifications

1. Experience with small animal imaging (MRI, PET/CT) and data analysis.
2. Experience with data analysis, post-processing, and statistical analyses using Excel, MATLAB, SPSS, Python, or related software.
3. Experience with preclinical models of neurological disorders, including handling of research animals.
4. Experience with quantitative analyses of tissue (immunofluorescence analyses, activity assays, western blots, flow cytometry).

The successful candidate will develop expertise in metabolic imaging of preclinical models of neurological disorders. The research will be performed within the MIR at Washington University, which is equipped with state-of-the-art imaging systems including a preclinical 9.4-T, a 4.7-T, and a 11.74-T MR systems, a PET/MR, two PET/CT scanners, and a SPINlab polarizer, as well as multiple clinical instruments. He/she/they is expected to lead research projects, publish in leading scientific journals and conferences. He/she/they will participate in set-up of project proposals and participate in funding activities. He/she/they will be strongly encouraged and supported to develop career skills, including writing, public speaking, networking, and applying for independent fellowships and grants. Training will be provided in disciplines with which the candidate is less familiar. Information on being a postdoc at Washington University in St. Louis can be found at https://postdoc.wustl.edu/prospective-postdocs

Applicant Special Instructions

Interested candidates are encouraged to email a CV, a cover letter describing research interests and previous experience, and a list of 3 references to Dr. Caroline Guglielmetti at carolineguglielmetti@wustl.edu