

Post-doctoral position in neuroimaging

Date: March 18th, 2026

Location: Mallinckrodt Institute of Radiology, Washington University in St. Louis

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 development of metabolic imaging including state-of-the-art hyperpolarized ¹³C and deuterium magnetic resonance spectroscopy in combination with PET/CT imaging in preclinical models of neurological disorders (Multiple sclerosis, Alzheimer's disease) and aging. Overall, this research aims to generate an improved understanding of the interplay between the immune system 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 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 ¹³C MRS, deuterium MRS, metabolism, 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. 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>

Working Conditions

This position works in a laboratory environment with potential exposure to biological and chemical hazards. The individual must be physically able to wear protective equipment and to provide standard care to research animals.

Salary Range

Base pay is commensurate with experience.

Applicant Special Instructions

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