

Postdoc Position in the Department of Radiology, Massachusetts General Hospital / Harvard Medical School

The Gordon Center for Medical Imaging (GCMI) in the Department of Radiology at Massachusetts General Hospital (MGH) and Harvard Medical School (HMS) in Boston, Massachusetts, has an opening for highly qualified individuals at the post-doctoral level to work with Dr. Heidi Jacobs. The Jacobs lab is part of the Gordon Center for Medical Imaging at MGH and focused on improving the early detection and early treatment of Alzheimer's disease. The lab focuses on the neuromodulatory subcortical nuclei, in particular the locus coeruleus, using a variety of approaches, including 7T MRI, PET imaging, pupil measurements, physiological recording, blood-based markers and cognitive assessments. This postdoc will be involved in a new NIA-funded R01 project using **7T imaging and non-invasive stimulation of the vagus nerve to modulate cognitive performance and locus coeruleus activity in the brains of older individuals at risk for Alzheimer's disease**. Our team and this project are closely affiliated with the Harvard Aging Brain Study (HABS). Ideal start date is around June 2021. Most of the work in this project will be performed at the Athinoula A. Martinos Center for Biomedical Imaging, Charlestown Navy Yard. The candidate will be part of ongoing collaborations and be able to work in a stimulating and inspiring environment.

The Department of Radiology at MGH is equipped with the first mobile PET/CT, the first brain PET/MRI, the first whole-body PET/MRI in the USA and several MRI scanners, including two 7T ultra-high-field scanner. It is equipped with a large-scale shared memory computing facility for parametric image analysis, tomographic reconstruction, Monte Carlo simulation, and other computationally intensive research applications.

Our research group values open communication, motivation, optimism, mutual respect, teamwork, and innovative thinking. Dr. Jacobs is highly committed to individualized mentoring to help trainees achieve the most out of their postdoctoral candidature and to move forward in their career. At a minimum, the training environment will include professional development, one-on-one meetings, group lab meetings, frequent seminars and journal clubs, opportunities to present their work at national and international scientific conferences (i.e. Human Amyloid Imaging, Alzheimer's Association International Conference, OHBM), and manuscript preparation for publication in high impact journals. In addition, Dr. Jacobs has a strong funding record and will strongly encourage and provide mentorship in grant applications.

Requirements: Candidates should have a Ph.D. in Cognitive Neuroscience, Computational Neuroscience, Medical Physics, Computer Science, Biomedical Engineering or related disciplines. Strong analytical, quantitative and programming skills are essential (e.g., fMRI-physiological data analyses, data modeling, simulations). Prior experience in fMRI, non-invasive neurostimulation methods and physiological investigation is advantageous. The candidate should be highly motivated, a strong communicator, possess internal drive to learn independently, but also be comfortable with working as part of a larger collaborative team. A real necessity is a passion for science, strong scientific writing and organizational skills, and a positive attitude. Experience in Alzheimer's disease dementia or aging would be beneficial.

MGH & HMS are equal-opportunity, affirmative action employers. Women and minority candidates are encouraged to apply.



Apply: The successful candidate will have joint appointments at MGH and HMS. If interested, please send your CV, letter describing interests, background, major achievements, skills, goals and contact information for three professional references. Please send application materials to Dr. Heidi Jacobs, Assistant Professor of Radiology, at [hjacobsmgh.harvard.edu](mailto:hjacobs@mgh.harvard.edu)