A postdoctoral research fellowship in perfusion MRI analysis and biophysical modeling is available at the Athinoula A. Martinos Center for Biomedical Imaging, Massachusetts General Hospital (MGH), under the supervision of Dr. Susie Huang and Dr. Yi-Fen Yen. The successful candidate will work to develop and validate biophysical models and cutting-edge analysis techniques on multiplex perfusion MRI in human brain. The ultimate goal is to understand neurovascular health in aging and how altered neurovascular health affects the onset of neurodegenerative diseases. This work will leverage the state-of-the-art MRI and PET-MRI hardware and superb expertise in MR acquisition and machine/deep learning at MGH/Martinos. The project will require biophysical modeling of neurovascular perfusion, oxygenation and metabolism, and validation of the models on DSC-MRI, ASL-MRI and PET data to study aging and neurodegenerative diseases, including Alzheimer’s disease and Huntington's disease.

Athinoula A. Martinos Center for Biomedical Imaging at the Massachusetts General Hospital is one of the largest biomedical imaging centers in the United States with over 200 research faculty, post-doctoral fellows and graduate students. This position provides a valuable opportunity to work and collaborate with a multi-disciplinary research team dedicated to developing, validating and translating the latest MRI technology that will benefit the neuroscience and clinical research communities as well as the diverse patient population served by the MGH.

A Ph.D. (or equivalent) in physics, electrical engineering, chemical/biomedical engineering, or a related field is required; however, strong candidates with other scientific backgrounds will also be considered. The ideal candidate should have a strong analytical background while displaying a high level of creativity. First-hand experience with biophysical modeling and analysis of perfusion and oxygenation in neurodegenerative diseases is a must. Skills in computational methods and image processing are highly desired. Candidates should be highly motivated and interested in working in an interdisciplinary environment with an emphasis on clinical and translational research.

APPLICATION
Interested applicants should send a cover letter describing research experience, interests, and future research and career goals, as well as an up-to-date curriculum vitae and contact information for three references to Yi-Fen Yen, Ph.D., by e-mail: yyen1@mgh.harvard.edu.

Questions regarding this position and informal inquiries should be directed to Yi-Fen Yen, Ph.D., by e-mail: yyen1@mgh.harvard.edu.

The position is full-time with benefits and available starting July 1, 2019. A two-year time commitment is required. The Massachusetts General Hospital is an Equal Opportunity/Affirmative Action Employer.