A Post-Doctoral Fellowship in Chemical Exchange Saturation Transfer (CEST) and Magnetic Resonance Fingerprinting (MRF) MRI is available at the Athinoula A. Martinos Center for Biomedical Imaging at Massachusetts General Hospital/Harvard Medical School.

The Farrar lab is seeking a MR Physicist/Imaging Scientist to work on the development of new, quantitative CEST MRI methods. The overall goal is to improve the sensitivity and specificity of CEST imaging and to provide quantitative CEST biomarkers (chemical exchange rate, concentration) for the accurate staging of disease, monitoring of treatment response, and imaging of novel biological based therapeutics. Specific to this posting is the development of new CEST MRI reporter genes for imaging oncolytic virotherapy (see for example Radiology 2015;275(3):746-754), the development of novel CEST magnetic resonance fingerprinting methods for rapid and quantitative CEST imaging, and the development of CEST methods for exchange rate selective CEST imaging.

The projects are funded by the National Institutes of Health and by biotech industries. The Post-Doctoral Fellow will be responsible for study design, protocol optimization and data acquisition and analysis. The candidate should have a strong background in MRI physics, Bloch equation simulations and Matlab programming. Experience in Bruker Paravision pulse programming and small animal MRI is also desirable.

The Farrar Group ([http://farrarlab.weebly.com](http://farrarlab.weebly.com)) is located at the A. A. Martinos Center for Biomedical Imaging, a branch of the MGH Radiology Department dedicated to addressing unmet challenges in biomedical imaging research through the application of the physical sciences. The Martinos Center ([http://www.nmr.mgh.harvard.edu](http://www.nmr.mgh.harvard.edu)) is a world-leading institute devoted to the development of cutting edge biomedical imaging technologies and their translation to clinical care. The Center is home to state of the art MRI facilities including 4.7, 9.4 and 15 Tesla preclinical MRI scanners. The Martinos Center fosters a unique environment for productive collaboration, mentorship, career development, and exchange of ideas.

The position is available immediately, but will remain open until the best candidate is available. This is a great opportunity for a MR physicist to develop new MRI reporter genes and imaging tools to impact novel viral and cellular based biological therapeutics.

Qualified applicants should send a CV and contact information for three references to Christian Farrar ([cfarrar@nmr.mgh.harvard.edu](mailto:cfarrar@nmr.mgh.harvard.edu)). Salary is commensurate with experience and is based on the NIH scale.