MR physics postdoctoral fellowship in Translational Hyperpolarized MRI

Memorial Sloan Kettering Cancer Center is the world’s oldest and largest private cancer center. Housed in MSK is a wide range of basic and translational research labs geared toward paradigm shifting translational and interdisciplinary science. We are seeking highly motivated postdoctoral fellows who are interested in MR physics in an interdisciplinary cancer research setting while living in the heart of Manhattan. Our primary research includes the exploration of MR techniques and probes to develop novel approaches for hyperpolarized magnetic resonance as well as systems to study metabolic dynamics.

Hyperpolarized MRI is a novel approach that allows for the creation of non-invasive MR contrast agents with dramatically increased signal intensity, making it possible to image nearly any small molecule and its subsequent biochemical products. Harnessing this approach, our lab’s research extends from bench to bedside with both pre-clinical and clinical laboratories, combining many fields of basic and applied science. Our lab houses a wide range of both permanent and superconducting high field MRIs as well as 2 hyperpolarizers which are exclusively used for our research. In this fellowship, you will take part in translational imaging, pushing magnetic resonance to explore in vivo metabolic dynamics. You will interface with clinicians as well as biologists and chemists, to explore mechanisms in biology and physics. MR physics approaches will include concepts relevant to rapid 3D imaging, sparse sampling, RF pulse design as well as parallel imaging.

Candidates with Ph.D. training in bioengineering, electrical engineering, biophysics or equivalent disciplines are strongly encouraged to send an application. For more information visit our lab website (www.ski.edu/keshari) or email Prof. Kayvan Keshari (rahimikk@mskcc.org).

For interested applicants, please send as one file:

- Cover letter indicating current and future research interests as well as your motivation for joining our team
- Curriculum vitae
- Brief summary of previous research experience
- Names and contact information for at least 2 references