MRI Scientist – Pulse Sequence Development

The University of Maryland School of Medicine Center for Advanced Imaging Research (umCAIR) within the Department of Diagnostic Radiology & Nuclear Medicine has an opening for the position of a full-time MRI Staff Physicist with a background in pulse sequence development to support research operations associated with Hyperpolarized $^{13}$C Metabolic Imaging and MR-guided Focused Ultrasound (MRgFUS).

Both the Hyperpolarized Metabolic Imaging and MR-guided Focused Ultrasound operations are supported by a GE 3T 750w MR scanner and a new Bruker small animal 3T system. Together these two systems provide both preclinical and clinical support for various ongoing projects. Hyperpolarization is facilitated by a GE SPINLab dynamic nuclear polarizer suitable for preclinical and clinical applications and MRgFUS for neuro applications is facilitated by two 1024 element transducers operating at 670 kHz and 220 kHz, respectively, for neuro-interventions from Insightec. A small animal 8-element MRgFUS system from Image Guided Therapy is also available that can be used as a stand-alone unit or interfaced with a Bruker 7T or a 9.4T small animal scanner. In addition to these, the center also has a research dedicated Siemens Prisma 3T system and a Siemens mMR Biograph 3T system to facilitate advanced imaging research.

While the initial focus is to develop state-of-the-art pulse sequences for MR imaging and spectroscopic applications to support the Hyperpolarized $^{13}$C Metabolic imaging and MRgFUS studies on the GE 3T and Bruker systems, the selected candidate will also be involved in developing new imaging techniques as and when the needs arises to support various research projects.

The ideal candidate would have a Ph.D. degree in Electrical Engineering, biomedical engineering, Medical Physics or related field with 3-5 years of experience in MR pulse sequence development (particularly in the areas of RF excitation, parallel imaging, and non-Cartesian acquisition techniques) and corresponding signal/image processing. Pulse sequence development on multiple platforms including GE, Siemens, and Bruker will be considered a plus.

Interested candidates should send an email to Dirk Mayer, Ph.D. (dmayer@som.umaryland.edu) or Rao P Gullapalli, Ph.D. (rgullapalli@som.umaryland.edu) with a cover letter highlighting key qualifications and experience, current CV and contact information of three referees.

Interested candidates may also contact the above for a meeting at the Annual Meeting of the ISMRM in Montreal to get more information.

_The University of Maryland at Baltimore is an AA/EOE/ADA Employer and encourages applications from women and members of minority groups._