Postdoctoral Research Fellow
High Resolution MR Image Acquisition and Reconstruction

Description: The Center for Advanced Imaging Research (CAIR) in the Department of Radiology of Mayo Clinic is seeking a post-doctoral fellow to work in the technical development of MRI acquisition and reconstruction methods enabling improved spatial resolution. Specifically, the methods involve enabling resolution finer than the slice thickness of conventional multi-slice MRI as used for morphological (T1- and T2-weighted), diffusion, and perfusion imaging.

Applications: The developed techniques are targeted toward multiple clinical applications with the principal one being prostate cancer. Prostate MRI is an area of particularly high growth, and technical improvement is well recognized as being valuable. Applications to other anatomic regions are also foreseen.

Qualifications: The candidate must have a Ph.D. or equivalent degree in biomedical engineering, medical physics, electrical engineering or a related field with a strong background in experimental physics and computation. The candidate should also have excellent written and oral communication skills. Experience in MRI pulse sequence programming and image reconstruction is highly desired. He/she will be expected to participate in both independent and collaborative projects.

Facilities and Resources: The Mayo CAIR offers exceptional resources for this position. Technical development will be done in the research-dedicated Opus Building which includes two 3T (GE and Philips) and one 1.5 T (GE) whole body MRI scanners available fulltime for research. The facility also houses extensive office and laboratory space. Also available are laboratory support staff with expertise in engineering, computation, and pulse sequence programming.

Associated Resources: Other resources include the extensive MRI facilities (>40 MRI scanners) of the Department of Radiology. The department currently performs over 4,000 prostate MRI exams per year. Available for consultation are collaborating radiologists, urologists, and other medical specialists.

Salary and Benefits: Salary and benefits are highly competitive.

How to Apply: Interested candidates should submit a brief statement of research interests, their curriculum vitae, and contact information of three references to: Stephen J. Riederer, Ph.D., Mayo Clinic, Rochester MN, email: riederer@mayo.edu

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