Postdoctoral Fellow in MRI neuroimaging, image processing, and data analysis

The Department of Neurology, Multiple Sclerosis Division at the University of Maryland School of Medicine is recruiting for a highly qualified postdoctoral researcher to perform research in MRI neuroimaging, image processing, and data analysis. The successful candidate will be expected to develop and implement methodologies, algorithms, and software for quantitative image analysis. The candidate may also become involved with MR image pulse programming for novel technique development. These activities will be related to clinical research projects involving patients with multiple sclerosis, including, but not limited to, 3 and 7-Tesla MRI, high-resolution anatomic imaging, metabolic techniques (i.e. chemical exchange saturation transfer (CEST) imaging, magnetic resonance spectroscopy (MRS)), susceptibility MRI (quantitative susceptibility mapping (QSM), T2*/R2*), and diffusion techniques (diffusion tensor imaging, diffusion kurtosis). Alternate contrast and/or labelling techniques, such as hyperpolarization and USPIOs may also be explored.

The candidate will join a research program successfully funded through grants from the NIH, foundations, and industry.

We are looking for a highly motivated, and career-oriented research individual, with a PhD in biomedical or electrical engineering, computer science, or a related field with a focus on medical imaging analysis.

Experience in medical imaging is required. Experience in neuroimaging and knowledge of neuroanatomy is preferred.

Proficiency in computer programming/scripting languages (such as Python, Bash, Matlab, C, Java, etc.) and experience with software and/or algorithm development and implementation is required.

Strong knowledge of MR physics, related signal processing, and pulse programming is required.

Experience with existing neuroimaging analysis software packages (i.e. FSL, Freesurfer, SPM, MIPAV, JIST, CBS Tools, TOADS-CRUISE, JIM, etc.) is preferred.

Strong mathematical and analytic skills are preferred. Excellent oral and written communication skills and the ability to work independently and in collaboration are necessary.

Individuals who are interested should submit a detailed CV, a brief statement including a research plan, interests and skills, and the names of three references, and a short description of their doctoral training and future research goals to:

Dr. Daniel Harrison
Associate Professor
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Baltimore, MD 21201
Or email it to dharrison@som.umaryland.edu