Postdoctoral fellowship in diffusion MRI
PIs: Els Fieremans and Dmitry Novikov

Join an **interdisciplinary team of scientists in New York City** working to transform MRI into a precise, pathology-specific scientific instrument. As a postdoctoral researcher, you will help pioneer the use of **Siemens Connectom.X**, the world's most powerful human brain MRI scanner **(500 mT/m gradients)**, newly installed at NYU. This role offers a unique opportunity to push the boundaries of **quantitative diffusion MRI**, focusing on **microstructure biomarkers** of the human brain in health and disease.

Responsibilities
You will work at the interface of biophysics, neuroscience, and clinical translation, focusing on:
- Development and validation of diffusion/microstructure models for brain gray and white matter
- Implementation and optimization of MRI protocols on the Connectom.X platform
- Applications to neurological disorders including multiple sclerosis (MS), Alzheimer's disease (AD), and amyotrophic lateral sclerosis (ALS), in collaboration with clinical partners.

You get the unique opportunity to contribute to the first-in-human clinical translation studies on Connectom.X and to collaborate with leading experts in physics, modeling, and neuroradiology.

The Candidate
You are a self-driven, creative, and interactive scientist strongly motivated to acquire new skills and to engage in interdisciplinary research. You have:
- PhD (or near completion) in biomedical engineering, physics, neuroscience, or related fields.
- Strong background in at least one of following: diffusion, quantitative MRI, or clinical study design.
- A publication record that demonstrates your ability to drive scientific discovery.

The Institution
You will join a vibrant community of graduate students, postdoctoral fellows, engineers, basic scientists, and clinicians, in one of the most dynamic medical centers in the world, with ample opportunities to pursue your own research or contribute to other projects. The Center for Biomedical Imaging (CBI) at the Department of Radiology is home to about 130 basic researchers covering all areas of MRI, from RF coil design to parallel imaging to biophysical modeling of diffusion, perfusion and relaxation. We believe that the best science requires intense collaboration. At CBI, basic researchers and clinicians interact frequently through labs, forums, lectures, coffee breaks and happy hours.

Our Facilities
Located in midtown Manhattan, we have access to state-of-the-art facilities, including Siemens Connectom.X and Prisma scanners, high-performance computing resources, and large clinical datasets.

Fine Print
The postdoctoral position is for two years with a possibility of extending for a longer term depending on your interests and performance. Position comes with a generous benefits package. Salary range $70k-$85k yearly.

To Apply
Email your cover letter, a statement of research interests, and a CV including a list of publications and contact information of three references (*all in PDF format*), to jobs@diffusion-mri.com.