

Postdoctoral Scholar - Neuro Imaging

The Helen Wills Neuroscience Institute at the University of California, Berkeley seeks applications for a Postdoctoral Scholar in the area of Neuro Imaging. The goal of the project supporting this position is to disseminate the Next Generation (NexGen) 7T scanner as a resource for the neuroscience research community and to facilitate neuroimaging at the scale of cortical layers and columns.

Responsibilities:

The Postdoctoral Scholar will work to develop new studies of brain circuitry are available at the Brain Imaging Center of University of California, Berkeley for a project funded by the prestigious NIH BRAIN Initiative. This project is to disseminate the Next Generation (NexGen) 7T scanner as a resource for the neuroscience research community, to facilitate neuroimaging at the scale of cortical layers and columns. The applicant will develop imaging techniques on the scanner to reach ultra-high spatial resolution in functional MRI, diffusion, and structural neuroimaging, and assist in porting new sequences to the scanner. Applicants should be highly motivated, with a desire to pioneer new areas of human neuroscience.

The applicant will work to develop novel pulse sequences and accelerated image reconstructions to achieve state-of-art, ultra-high-resolution imaging and speed for physiological and ultra-high-resolution fMRI with 2D and 3D EPI, GRASE and VASO sequences. They will be in all related meetings, and contribute to educational workshops, write papers and present results at national or international scientific meetings. They will assist with operating the scanner for users, and with training and educating users about the NexGen scanner, MRI safety, and use of associated peripherals (e.g. video projector or physiological recordings). The NexGen 7T MRI scanner is the most advanced technologically for developing advanced brain imaging pulse sequences. It has the Impulse head gradient (20 mT/m, 900 T/m/s), a 128 channel receiver system the highest on 7T scanner and a 16 channel receiver system.

Basic qualifications (required at time of application)

- PhD (or equivalent international degree) or enrolled in a PhD degree program (or equivalent international degree) at the time of application.

Additional qualifications (required at time of start)

- PhD (or equivalent international degree). The candidate should have no more than three years of post-degree research experience by start date

Preferred qualifications

- PhD (Physics, Bioengineering, Computer Science, or a related research field)
- Two years of experience as a Research Scientist, Post-doctoral Researcher, or similar in the field of physics, computer science or a related research field
- Demonstrated skills in MR pulse sequence programming, image computation, accelerated reconstruction, MATLAB and C/C++
- Demonstrated experience writing papers for publication and presenting work at scientific conferences.
- Exceptional written and oral English communication skills
- Excellent analytical and problem-solving skills
- A background in MR neuroimaging techniques, particularly at high-fields (7T and above).

Document requirements

- Curriculum Vitae - Your most recently updated C.V.
- Cover Letter

Reference requirements

- 2-4 required (contact information only)

For more information please contact David Feinberg (david.feinberg@advancedmri.com)

Application link: <https://aprecruit.berkeley.edu/JPF04204>