Postdoctoral Research Scientist at Advanced MRI Technologies

The project is to develop imaging pulse sequences and techniques on the recently completed NexGen 7T scanner (Siemens Terra) located at University of California, Berkeley. The research work is to reach ultra-high spatial resolution in functional MRI and neuroimaging. The BRAIN Initiative and this NIH funded project has an active collaboration between Siemens engineers in Germany, and UC Berkeley, Harvard MGH. The NexGen 7T scanner has entirely new advanced hardware for highest performance neuro imaging (16ch Tx, first 7T with 128 channel Rx systm, “Impulse” head gradient (Gmax 200mT/m, SlewRate 900T/m/s), active shim array, Skope field camera. A research position is available in pulse sequences and accelerated image reconstructions for fMRI and brain imaging at 7 Tesla to achieve state-of-art high-resolution imaging. Immediate projects include ASL, VASO, EPI and GRASE imaging for column and layer fMRI. The project collaborations and image evaluations several 7T and 3T research centers including UCSF, MGH, U. Minnesota, USC, Baylor and other collaborative sites. This is an international high visibility research project with international collaborators for cutting edge neuroimaging pulse sequence development. The research position has high potential for future career paths into academia and industry.

Skills in MR pulse sequence programming, image computation, MATLAB and C/C++ are required.

A second project is to develop and apply new methods for mesoscale fMRI to probe brain circuitry at the level of columns and layers.

This position will require experience in high field, high resolution functional and structural MR-imaging of the brain. Skills in fMRI experiment design and data analysis in any of the common programming languages (MATLAB, Python C++) are required. Applicants should be highly motivated, with a desire to pioneer new areas of human neuroscience.

Applicants should have analytical and problem-solving skills, strong written and oral English communication skills, and ability to write papers for publication and present work at scientific conferences. A background in MR neuroimaging techniques, and a Ph.D. in a field related to the research work are required.

Interested applicants should send a cover letter describing research experience and career goals, a C.V. and contact information for 3 references to: david.feinberg@berkeley.edu.