

MagLab Research Faculty Position in Preclinical and Materials MRI

The National High Magnetic Field Laboratory (MagLab) has an opening for an MRI-oriented Research Faculty. Level will be commensurate with experience. Under the general supervision of the Director of the MRI User Program, the primary goal of this Faculty will be to evaluate the benefits of in vivo MRI at ultra-high magnetic field (up to 21.1 T and beyond) using rodent models; the scientist may also partake of in-cell and materials-oriented research projects involving MRI, MRS and diffusion-based measurements. The position is an exciting opportunity to be at the forefront of rapidly developing new research fields, and enjoy an outstanding infrastructure both in terms of engineering resources and scientific environment. Facilities at this NSF-funded user facility include a record high MRI system based on a 21.1-T, 105-mm magnet and a Bruker Avance III console; access to the Lab's brand new 35.2-T MR system and Bruker Neo console is also envisioned. An animal facility is conveniently situated within the MR facility. The Faculty will be responsible for technical and academic support for the external scientists using the NHMFL's unique capabilities, including project/protocol design, planning, and successful execution of collaborative work.

The MagLab is the world's premier magnet laboratory with state-of-the-art high magnetic field facilities and has a history in development and application of ultra-high field NMR and MRI/S magnets and instrumentation. The MR User Facility hosts hundreds of users from around the world each year. The candidate will have the opportunity to collaborate with national and international users, apply for grant opportunities, publish and pursue individual research objectives, and participate in national and international organizations and conferences. More specifically, the Research Faculty member will be responsible for technical and academic support for the external scientists using the MagLab's unique capabilities, including project/protocol design, planning, and successful execution of collaborative work. The Research Faculty is also expected to be actively engaged in the recruitment of MRI users to the MagLab facility.

In summary, the Research Faculty is expected to develop an independent research effort at the forefront of the MRI research, collaborate with internal and external users, and aid in developing state of the art sequences, probes and magnets for MRI as a colleague of the MR, RF and magnet engineering groups at the MagLab.

Qualifications include a Ph.D. in an engineering discipline, applied physics/mathematics, or an area related to MRI. Good writing skills, a track record in publications, experience working in a multidisciplinary research environment, and possess good collegiality and team-player abilities. Candidates should be knowledgeable in MRI physics and have experience in developing MRS/MRI pulse sequences, image reconstruction, post-processing methods and thorough understanding of factors that affect MR image quality.



Experience in rodent in vivo MRI and experience with independently writing grant proposals. Strong programming background in MR pulse sequencing (preferably with experience in rodent MRI and with Bruker scanners) and in spectral/image post-processing. Design and development of animal protocols for a variety of MRI in vivo studies (structural, metabolic and functional ^1H imaging as well as heteronuclear imaging of spin- $1/2$ and quadrupolar nuclei) also are highly desired.

Interested candidates should apply to Florida State University at <https://jobs.fsu.edu> and reference Job ID #46160. Please attach your curriculum vitae, cover letter describing your research experience and interest in the position. For additional information, please contact Ms. Bettina Roberson, National High Magnetic Field Laboratory, Florida State University, 1800 E. Paul Dirac Drive, Tallahassee, FL 32310-2740, 850-644-0855.

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