Research Faculty I

The National High Magnetic Field Laboratory (MagLab) has an opening for an MRI-oriented Research Faculty position (*FSU classification*: Research Faculty I). The primary focus of this Research Faculty I will be working with researchers in our internationally recognized NMR/MRI User Program who apply for magnet time to pursue projects in preclinical MRI and MRS as well as in-cell and materials-oriented research projects. The ideal candidate will take an active role in developing *in vivo* MRI and MRS methods at ultra-high magnetic field (specifically 21.1 T) and demonstrating their utility in rodent models. The position is an opportunity to be at the forefront of a rapidly developing research fields, and enjoy outstanding infrastructure both in terms of engineering resources and scientific environment. Our world-unique 21.1-T MRI/MRS system has a 105-mm bore, an array of high-field gradients and radiofrequency coils, a state-of-the-art Bruker NEO console, and is supported by an onsite animal housing facility. Future development of MRI/MRS using the MagLab’s 35.2-T MR system also are envisioned. The Research Faculty I will be responsible for technical and academic support of external scientists using the MagLab’s unique capabilities, including project/protocol design, experiment planning, and successful execution of collaborative work. The Research Faculty I member also is expected to be engaged actively in the recruitment of users to the MagLab facility.

The Research Faculty I member will collaborate with internal and external users, aid in developing state of the art sequences, probes and magnets for MRI/S as a colleague of the MR, RF and magnet engineering groups at the MagLab, and pursue an independent research effort at the forefront of preclinical ultra-high field MRI research.

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 develop individual research objectives, and participate in national and international organizations and conferences.

Ph.D. in engineering, neuroimaging, applied physics/mathematics, chemistry/biochemistry, computer science or any other area related to MRI. The candidate should have well-developed writing skills, a strong publication record, experience working in a multidisciplinary research environment, and a dedication to diversity and inclusion as well as 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 a thorough understanding of factors that affect MR image quality.

Additional characteristics of interest include:

1. Experience with *in vivo* rodent MRI.
2. Strong programming background in MR pulse sequencing (preferably with specific experience with Bruker PV360) and spectral/image post-processing programs such as Matlab or other programming languages.
3. Design and development of animal protocols for a variety of in vivo MRI studies (structural, metabolic, and functional \(^1\)H imaging as well as heteronuclear imaging of spin-1/2 and quadrupolar nuclei).

4. Experience with independently writing grant proposals.

The National High Magnetic Field Laboratory (NHMFL) 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 NHMFL is an NSF-funded user facility that operates the world’s most powerful electromagnets at Florida State University, the University of Florida and Los Alamos National Lab, including 45 T DC and 35.2 T (1.5 GHz) NMR magnets, and DNP spectrometers currently operating up to 14.1 T / 600 MHz / 395 GHz. Present projects include development of a 40 T all-superconducting magnet. Our long-term plan includes development of 30 T NMR magnets, neutron scattering magnets, and resistive-superconducting hybrid magnets up to 60 T.

If qualified and interested in a specific job opening as advertised, apply to Florida State University at https://jobs.fsu.edu, Job # 54611. If you are a current FSU employee, apply via myFSU > Self Service.

For questions about the position, please contact Jens Rosenberg at rosenb@ufl.edu or phone: 352-294-8811. For additional HR information, please contact Ms. Bettina Roberson, National High Magnetic Field Laboratory, Florida State University, 1800 E. Paul Dirac Drive, Tallahassee, FL 32310-2740

Pursuant to Florida law, any citizen of a foreign county who is not a permanent resident of the U.S., or who is a citizen or permanent resident but is affiliated with or has had at least 1 year of employment or training in China, Russia, Iran, North Korea, Cuba, Venezuela, or Syria is subject to additional screening. If you meet these criteria, you must be prepared to provide the following information to FSU upon request:

--Every institution of higher education attended, whether or not listed on your CV or resume
--All previous employment since your 18th birthday
--A list of all published material
--A list of all current and pending research funding from any source, including details about the research, your role, funding source, and amount
--List and description of any non-university professional activities
--Any affiliation with an institution or program in a foreign country
--A complete copy of your passport
--Your most recently submitted DS-160 (Online Nonimmigrant Visa Application)