

Department

National High Magnetic Field Laboratory

Responsibilities

Position Overview:

The National High Magnetic Field Laboratory (MagLab) at Florida State University invites applications for a research faculty position focused on magnetic resonance imaging (MRI). Based at the Tallahassee facility, this role centers on supporting and collaborating with researchers in the internationally recognized NMR/MRI User Program, with emphasis on preclinical MRI/MRS, in-cell studies, and materials-oriented research.

The successful candidate will play a key role in developing in vivo MRI and MRS methods at ultra-high magnetic field (21.1 T) and demonstrating their application in rodent models. This position offers the opportunity to contribute to rapidly advancing research areas while leveraging exceptional infrastructure, engineering support, and a highly collaborative scientific environment.

- Develop and implement advanced in vivo MRI and MRS methodologies at ultra-high field (21.1 T).
- Support and collaborate with internal and external users of the MagLab's NMR/MRI facilities.
- Provide technical and scientific expertise in the design of protocols, planning of experiments, and the acquisition and analysis of data.
- Manage and operate an 11.7-T Bruker MRI system with NMR microscopy and diffusion capabilities.
- Contribute to collaborative research projects and pursue independent research initiatives.
- Disseminate research findings through publications and conference presentations.
- Engage with national and international collaborators and user communities.

Qualifications

Ph.D. in engineering, neuroimaging, applied physics, applied mathematics, chemistry/biochemistry, computer science, or a related field relevant to MRI.

Preferred Qualifications

- Strong foundation in MRI physics and image formation principles.
- Demonstrated experience developing MRI/MRS/MRSI pulse sequences.

- Programming expertise in MRI pulse sequence development (e.g., Bruker Paravision) and data processing (e.g., MATLAB or similar).
- Proven publication record.
- Ability to work effectively in collaborative, multidisciplinary environments.
- Experience managing or contributing to shared research facilities.
- Expertise in preclinical MRI/MRS, including:
 - Animal protocol development
 - Structural, metabolic, and functional ^1H imaging
 - Heteronuclear imaging (spin-1/2 and quadrupolar nuclei)
 - Spectroscopy and spectroscopic imaging

Other Information

Professional Opportunities:

- Opportunity to pursue independent and collaborative research programs.
- Encouragement to apply for external funding (salary is not contingent on grant support).
- Participation in national and international conferences and professional organizations.

Helpful

Facilities and Resources:

The MagLab hosts a world-unique 21.1-T MRI/MRS system, featuring:

- 105-mm bore
- Advanced gradient systems and multinuclear RF coils
- State-of-the-art Bruker NEO console

These capabilities are supported by:

- Onsite animal housing facilities
- Dedicated MRI hardware engineering staff

The position also involves collaboration with the AMRIS facility at the University of Florida (Gainesville), with occasional travel required.

Research Environment:

The MagLab is the world's premier magnet laboratory, housing state-of-the-art high-field instrumentation and a long history of innovation in NMR and MRI technologies. The NMR/MRI User Facility hosts hundreds of users from around the world each year.

Contact Info

Please contact William Brey if you have any questions.

University Information

One of the nation's elite research universities, Florida State University preserves, expands, and disseminates knowledge in the sciences, technology, arts, humanities, and professions, while embracing a philosophy of learning strongly rooted in the traditions of the liberal arts and critical thinking. Founded in 1851, Florida State University is the oldest continuous site of higher education in Florida. FSU is a community steeped in tradition that fosters research and encourages creativity. At FSU, there's the excitement of being part of a vibrant academic and professional community, surrounded by people whose ideas are shaping tomorrow's news!

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Use our FSU Total Compensation Calculator to calculate Total Compensation options based on potential salary, benefits and retirement contributions, earned leave, and other employment-related perks.

How To Apply

If qualified and interested in a specific Faculty job opening as advertised, apply through the FSU Faculty Careers site (jobs.fsu.edu). If you are a current FSU employee, apply through myFSU Self Service. Job ID 62801.

Applicants are required to complete the online application with all applicable information. Applications must include education details even if attaching a Vita.

Applications must include:

Curriculum vitae

Statement of research accomplishments and future vision

Statement of leadership philosophy and vision for the NMR/MRI program

Contact information for three references

Considerations

This is a Faculty position.

This position requires successful completion of a criminal history background check.

This position is being advertised as open until filled.

Review of applications begins August 1, 2026, and continues until the position is filled.

Equal Employment Opportunity

FSU is an Equal Employment Opportunity Employer.