

## Postdoctoral Research Associate

The **National Resource for Advanced NMR Technology**, an NIH-funded program (NIH-RM1GM148766) hosted at the National High Magnetic Field Laboratory (MagLab) in Tallahassee, Florida, has an opening for a **Postdoctoral Research Associate**.

The primary focus of this postdoctoral position will be working with MagLab personnel and collaborating with internationally recognized researchers from around the world who are interested in developing new NMR techniques and technologies that have applications in biomedical research. The postdoc will take an active role in projects on one or more of these MagLab's flagship NMR instruments:

1. the 36 T Series Connected Hybrid (SCH) magnet, which operates at 1.5 GHz for NMR, making it the highest-field solid-state NMR platform in the world;
2. the 14.1 T/600 MHz/395 GHz dynamic nuclear polarization (DNP) NMR platform, which is uniquely configured for both solid-state DNP NMR and liquid-state ODNP NMR; and
3. the 32 T all-superconducting magnet (SCM), which will be used for wideline and ultra-wideline NMR of unresponsive nuclei at very low temperatures.

Research areas include, but are not limited to:

1. high-field solid-state NMR of quadrupolar nuclei in biological systems (i.e.,  $^{17}\text{O}$ ,  $^{33}\text{S}$ ,  $^{43}\text{Ca}$ , and an assortment of metal nuclei);
2. developments and applications of MAS DNP NMR to biological samples featuring novel polarizing agents, state-of-the-art probe designs, and new protocols for maximizing signal using Helium spinning and cooling; and
3. implementation of new probes for use on the 36 T SCH, 32 T SCM, and 600 DNP platforms.

The MagLab is the world's premier magnet laboratory with state-of-the-art high magnetic field facilities and has a long history in development and application of ultra-high field NMR and MRI/S magnets and instrumentation. The NMR/MRI User Facility hosts hundreds of users from around the world each year. The postdoc will have the opportunity to collaborate with national and international users, publish and develop individual research objectives, participate in national and international conferences, and be involved with a number of research initiatives and grant-writing opportunities.

### Qualifications

Minimum requirements include a Ph.D. in physics, chemistry, biochemistry; preferred qualifications include experience with NMR methods, pulse sequences, spectral processing, and NMR probes. Applications consisting of a letter of interest, CV, and names of three references can be sent to [rschurko@fsu.edu](mailto:rschurko@fsu.edu) and will be accepted until the successful candidate is identified. The position is available starting July 2023 for one year, with a possibility of extension to a second year.

### Other Information

For questions about the position, please contact Rob Schurko ([rschurko@fsu.edu](mailto:rschurko@fsu.edu))

### University Information

Florida State University is an elite U.S. university that 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, FSU is the oldest continuous site of higher education in Florida, and is a community steeped in tradition that fosters research, encourages creativity, and embraces diversity. Tallahassee is the state capital of Florida and largest city in the Florida Panhandle (metropolitan population: 385,000), featuring rolling hills, towering pines, abundant sunshine, and proximity to the Gulf of Mexico.

*NHMFL and FSU are Equal Opportunity/Access/Affirmative Action/Pro Disabled & Veteran Employers*