Postdoctoral Position Researching Liver Metabolism Using Hyperpolarized Carbon-13 MRI

UCSF Department of Radiology and Biomedical Imaging
Hyperpolarized MRI Technology Resource Center

A post-doctoral appointment is available at UCSF working in the laboratory of Dr. Michael Ohliger, researching liver metabolism using hyperpolarized 13C MRI. Research will be conducted within the Hyperpolarized MRI Technology Research Center (HMTRC) at UCSF. Studies may include both human studies as well as preclinical animal models with fatty liver disease. The major goal of the research is to discover new metabolic biomarkers of liver disease. Projects will also include optimization of acquisition strategies, including new RF coils, pulse sequences, modeling and data analysis. By developing new HP MRI technology, this research aims to significantly advance medical knowledge and help solve unmet clinical needs for a variety of serious diseases.

Job Description and Responsibilities: The post-doctoral researcher will work together with Dr. Ohliger and others at the Hyperpolarized MRI Technology Resource Center developing novel translational methods for hyperpolarized 13C MRI. As part of a major funded research study, there are opportunities to be part of the full translational pathway of an exciting new technology. Primary responsibilities will be designing and conducting imaging research studies in both humans as well as pre-clinical animal models. Depending on the interests and backgrounds of the applicants, additional projects may include sequence optimization, image reconstruction, hardware development, and investigation of new hyperpolarized MRI probes.

In addition to working directly with Dr. Ohliger, the post-doctoral researcher will work closely with a large team of collaborators at the UCSF HMTRC. As a global leader in hyperpolarized 13C research, the HMTRC offers the opportunity to be part of a large, multidisciplinary and collaborative team, with the opportunity to have major clinical impact.

Facilities: The UCSF HMTRC encompasses equipment in the UCSF Surbeck Laboratory for Advanced MR Imaging and the adjacent UCSF Biochemical NMR lab. The Surbeck Laboratory houses clinical 7T and 3T MRI scanners as well as two GE SPINLab multi-sample clinical research polarizers. The nearby Biomedical NMR Facility Laboratory houses two high field (500 and 600 MHz) Varian NMR spectrometers, and a low field (3 T) imaging system uniquely integrated with two HyperSenseTM (Oxford Instruments) DNP polarizers enabling bioreactor studies. The center also includes an electronics shop and a machine shop. A full spectrum of computational facilities are also available.

More information can be found at: https://hyperpolarizedmri.ucsf.edu

Qualifications: The position requires a PhD in NMR, MR physics, bioengineering or a related discipline. The ideal candidate should have a strong background in experimental MR techniques and be motivated to conduct biomedical research studies to address unmet healthcare needs.

Please Apply to: Michael Ohliger, MD PhD Michael.ohliger@ucsf.edu, Associate Professor of Radiology, UCSF. Candidates should provide the following: Curriculum vitae (CV), Statement of research interests, Contact information (email, phone) for three references.

The University of California San Francisco is an affirmative action, equal opportunity employer and complies with all applicable laws and regulations. All qualified applicants are encouraged to apply, including minorities and women.