Project Staff Scientist and Postdoctoral Fellow Positions – Advanced Imaging Techniques and Applications

Biomedical Imaging Research Institute (BIRI) at Cedars-Sinai is recruiting Project Staff Scientists and Postdoctoral Fellows. Cedars-Sinai Medical Center, affiliated with the UCLA, is a world-leading hospital and is currently ranked #6 nationally on the Best Hospitals Honor Roll (Introduction to Cedars-Sinai). BIRI is one of the leading MRI research groups with a central focus on developing and applying novel imaging technologies to today’s most pressing translational research and clinical questions. BIRI has been constantly growing into a team of 70 onsite personnel including research and clinician-scientists, technical and support staff, postdoctoral scientists, and doctoral students. BIRI has two full-time on-site MRI scientists from Siemens.

BIRI Research Core Facility houses a state-of-the-art 3T whole-body scanner (Siemens MAGNETOM Vida), a whole-body PET/MR system (Siemens Biograph mMR), and Bruker BioSpin 9.4T small animal scanner, all dedicated to research. A 7T MRI human scanner is expected to be installed. Our research and clinician scientists collaborate closely with physicians to synergistically bring together technical and clinical expertise in areas such as cardiology, neurology, and oncology imaging. (Introduction to BIRI)

The candidates will join an interdisciplinary research program and work in an exciting new growing field in MRI. You will focus on data acquisition and processing and publications about various imaging applications throughout the human body by leveraging our completed novel MR hardware imaging platform, which enables data acquisition in new ways previously impossible. The candidate will work synergistically with the MR Hardware team led by Dr. Hui Han who is the Director of MR Engineering. (MR Engineering | Cedars-Sinai). Dr. Han is the developer of “iPRES” MR coils, an impactful technology for combining B0 shimming and RF detection into a single array. The MRI Laboratory comprises a newly constructed lab space (2,000 sq. ft.) in the iconic Pacific Design Center in West Hollywood and a secondary lab space (150 sq. ft.) in Imaging Core Facility.

Desirable background and skills may include experience in data acquisition on MRI scanners, image acquisition and processing, MRI physics, pulse sequence development, or image reconstruction. Hands-on experiences with acquisition, processing, and analysis of MRI data are essential.
The candidate should have a **strong motivation to publish** with a proven track record. **Experiences in hardware development are not required.** Pulse sequence development and/or MRI reconstruction, particularly in the Siemens IDEA environment is a plus. You will work on improving image quality and accuracy throughout the human body using **advanced MRI techniques** such as diffusion, metabolic, susceptibility, and functional imaging. These advanced techniques provide information beyond macroscopic morphology on tissue microstructure, metabolism, and function, offering unique information associated with various pathological states. The candidate will benefit from a world-leading BIRI group full of MR physicists and experts in pulse sequence development, image reconstruction, motion correction, and artificial intelligence.

The projects are funded by NIH under a collaboration effort with Drs. Debiao Li, Andrew Maudsley, and Hyunsuk Shim. Ongoing projects are highly supported and anticipated by major MRI vendors as it advances the field by solving major limitations of high-field MRI scanners. Dr. Han is the Vice Chair-Elect of the ISMRM MR Engineering Study Group and will rotate to the chair and organize the first international ISMRM Workshop on MR Engineering in coming years. He is also the Vice President-Elect of the Overseas Chinese Society for Magnetic Resonance in Medicine (OCSMRM) and will rotate to the President.

Depending on your qualifications, you will be provided with a generous compensation package. Of note, the positions have great opportunities to grow. The new research field holds multiple new research opportunities. Young ambitious scientists are especially encouraged to apply as this position could become independent faculty with support. You will be offered guidance to develop your own grants (e.g., NIH K Awards) that can benefit from our innovative MR hardware program well-funded by NIH. BIRI has a strong track record in cultivating the next generation of leaders in biomedical imaging.

Interested applicants please contact Dr. Han with including a resume and a brief description of interest:

**Hui Han, PhD**
Director of MR Engineering
Biomedical Imaging Research Institute
Cedars-Sinai Medical Center
8700 Beverly Blvd #2900A, Los Angeles, CA 90048
Email: hui.han@cshs.org