

Postdoctoral Research Position MR-guided Focused Ultrasound



University of California San Francisco has an opening for Postdoctoral Scholar in MR-guided focused ultrasound. This is a joint position between the departments of Radiology and Biomedical Imaging (Dr. Eugene Ozhinsky) and Radiation Oncology (Dr. Chris Diederich). Our lab's work focuses on design and development of ultrasound devices and monitoring techniques for hyperthermia cancer therapy, thermal ablation procedures, drug delivery and activation. The candidate will be working on development of an MR-guided hyperthermia delivery system based on a commercially available FDA approved body focused ultrasound transducer, as well as other related research projects.

Responsibilities:

- Develop accelerated real-time MRI pulse sequences and reconstruction pipelines for temperature monitoring
- Design and implement control strategies for a robotic phased array focused ultrasound transducer
- Work with multiple software and hardware systems in order to make them work together to achieve the goals of the project
- Perform numerical simulations and pre-clinical experiments
- Perform in vivo experiments in an MRI environment
- Assist with clinical MR-guided focused ultrasound treatments

Required Qualifications:

- PhD in Bioengineering, Physics, Computer Science, or related discipline
- Strong programming skills in one or more of the programming languages (JavaScript, Python, Matlab, C++)
- Solid knowledge of MR physics and pulse sequences
- Good communications and writing skills

Preferred Qualifications:

- Knowledge of ultrasound physics
- Familiarity with phased arrays
- Experience with image-guided therapy
- Experience with RTHawk real-time MRI platform
- Experience with InSightec ExAblate focused ultrasound system

How to Apply:

Please email Eugene Ozhinsky at eugene.ozhinsky@ucsf.edu with your CV/resume, contact information for three references, and a cover letter.

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