



Post-Doctoral Fellowship in Focused Ultrasound and the Brain

With nation-wide responsibility for improving the health and well-being of all Americans, the Department of Health and Human Services oversees the biomedical research programs of the National Institutes of Health and those of NIH's research Institutes.

The Frank Laboratory in the Clinical Center and National Institute of Biomedical Imaging and Bioengineering, NIH is accepting applications for a two-three-year research fellowship position for qualified Ph.D., M.D., or MD/Ph.D. candidates with a background in Therapeutic Ultrasound (TUS), neurosciences, or blood-brain barrier (BBB) to investigating the molecular and immune cellular effects of focused ultrasound (FUS) on the BBB, blood tumor barrier, and neurovascular unit (NVU). This research will explore the effects of FUS on the brain and tumor microenvironment (TME) induced changes on cellular elements of the NVU in transgenic models. The position will investigate how FUS can be used to alter brain TME. The research will focus on optimizing the coverage of brain pathologies and will serve as the basis for enhances homing of stem cells or immune cells as part of immunotherapy in treating CNS tumors, traumatic brain injury, and malignancy. We are looking for an individual with experience in therapeutic US techniques, biomedical engineering, imaging sciences, or neurosciences to explore in a range of experimental models (i.e., Neurodegenerative diseases, Primary and metastatic Tumors, TBI, and Stroke) that will serve as proof of concept of pulsed focused ultrasound to facilitate innovative therapeutic strategies. One major research interest is to translate pFUS techniques developed in the lab and bringing the technology forward to clinical trials. The lab has an MRI compatible FUS system, Ultrasound based FUS System, home built TUS unit, 3T MRI scanner, 7T MR microimager, MicroPET/MicroCT as well as access to 9.4T MRI and bioluminescent imager in the NIH mouse imaging facility. The lab also has cellular and molecular biology laboratories with confocal and scanning microscopes.

Salary for positions is commensurate with experience. Candidates should send a cover letter, curriculum vitae and names and addresses of three references to:

Joseph A. Frank MD MS
Frank Laboratory
Radiology and Imaging Sciences, Clinical Center, NIH
Building 10 Room B1N256
Bethesda, Maryland 20892-1074
e-mail: jfrank@nih.gov
http://www.cc.nih.gov/about/SeniorStaff/joseph_frank.html

