My laboratory is studying the use of focused ultrasound (FUS)-mediated blood brain barrier (BBB)-opening for drug delivery in the setting of brain tumors. My research approach is divided into two programs: 1.) Studying fundamental questions necessary for clinical implementation of FUS-mediated BBB-opening in patients with brain tumors; and 2.) Developing novel treatment strategies for combining FUS and radiation therapy.

**Focused Ultrasound**

- FUS combined with microbubbles can open the blood brain barrier (BBB)
- This potentially allow for non-invasive drug delivery (such as immunotherapy) to tumors in the brain