Ultrasound is a relatively established modality with a number of exciting, yet not fully explored applications, ranging from imaging and image-guided navigation to tumor ablation, neuro-modulation, piezoelectric surgery, and drug delivery. In this talk, Dr. Manbachi will be discussing some of his ongoing projects aiming to address low-frequency neuromodulation, minimally invasive ablation of neuro-oncology and implantable sensors for spinal cord blood flow measurements.