

VUIIS Seminar Series

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Treating Breast Cancer with Imaging and Sound

Abstract: Improved early detection methods and treatments have led to the reduction of breast cancer mortality, yet there remains a need for more conservative, more efficacious and less invasive breast cancer treatments. Magnetic resonance guided focused ultrasound (MRgFUS) is a promising non-invasive treatment for breast cancer. MRgFUS leverages breast magnetic resonance imaging (MRI) to plan, monitor and assess treatments under MRI guidance to attain local tumor destruction, achieving excellent cosmetic results. This talk will describe several aspects of breast MRgFUS that has been developed by Dr. Payne's Focused Ultrasound Lab including medical device design, clinical translation including ongoing clinical trials, quantitative imaging techniques for treatment monitoring and assessment and imaging biomarker development.

Bio: Allison Payne is an Associate Professor in the Department of Radiology and Imaging Sciences at the University of Utah. Her research lab focuses on the clinical translation of magnetic resonance guided focused ultrasound to treat breast cancer, back and neck pain and other neurologic conditions and developing quantitative imaging biomarkers to assess thermal and other non-invasive therapies more accurately. She has held committee chair and board positions in several professional societies and is currently a standing member of the NIH Imaging Guided Interventions and Surgery study section. When not in the lab, she enjoys life in Utah with her husband and three children and loves to waterski and hike.

