



Medical Physics Seminar

Monday, September 11th, 2017

1345 HSLC ~ 4:00 P.M.



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On the Use of Rhesus Macaque Model for Ultrasonic Backscatter Parameters in the Human Cervix

Cervical change occurs during the menstrual cycle, pregnancy process, and is a prerequisite for vaginal preterm birth. The ability to quantitatively detect cervical change using ultrasound could lead to a better understanding of the mechanisms for preterm birth. Use of an appropriate animal model for pregnancy may facilitate rapid development and testing of future interventions for preterm birth. We developed a method to measure the angle-dependence of the acoustic properties of the cervix, vetted the method in known anisotropic tissues and materials, and showed a significant and consistent decline in the angle dependence of the cervix throughout pregnancy; cross-sectionally in humans and longitudinally in non-human primates.

1345 Health Sciences Learning Center (HSLC) 4:00 - 5:00 P.M.