



Cervical Probe Predicts Preterm Delivery Risk

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a technique for assessing the underlying structure of cervix tissue using backscattered ultrasound to predict the risk of premature birth.

Overview

Preterm birth affects 13 million babies every year, resulting in infant deaths, disabilities and medical conditions costing \$26 billion annually in the U.S. alone. Preterm birth rates have increased in the past century due to more high risk pregnancies and a lack of effective therapies to treat these conditions. Neither drugs nor cervical sutures prevent preterm births.

The cause of preterm births appears to be the premature or accelerated 'remodeling' of the cervix, when tissue softens and shortens to allow vaginal birth. The ability to accurately assess remodeling could help predict and monitor preterm risk, guide new therapies and identify when labor may be successfully induced.

The Invention

UW-Madison researchers have developed a method to evaluate cervical tissue using ultrasound.

An ultrasound beam is generated and steered to assess the collagenous microstructure of the cervix, revealed by backscatter power variation at a range of angles and depths. The distribution of power loss in reference to the structure of the cervix can provide diagnostic information to the operator.

Applications

- Assessing cervical microstructure
- Determining the likelihood of preterm delivery
- Determining the success of inducing labor at full term

Key Benefits

- Simple measure of underlying tissue structure
- Easy to implement on existing ultrasound imaging systems
- Accurate tissue assessment and reduced noise

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• [Timothy Hall](#)

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Related Technologies



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- [For more information about using backscattered ultrasound to measure changes in cervical microstructure, see WARF reference number P08340US.](#)

Tech Fields

- [Medical Imaging : Ultrasound](#)

For current licensing status, please contact Jeanine Burmania at jeanine@warf.org or 608-960-9846

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