

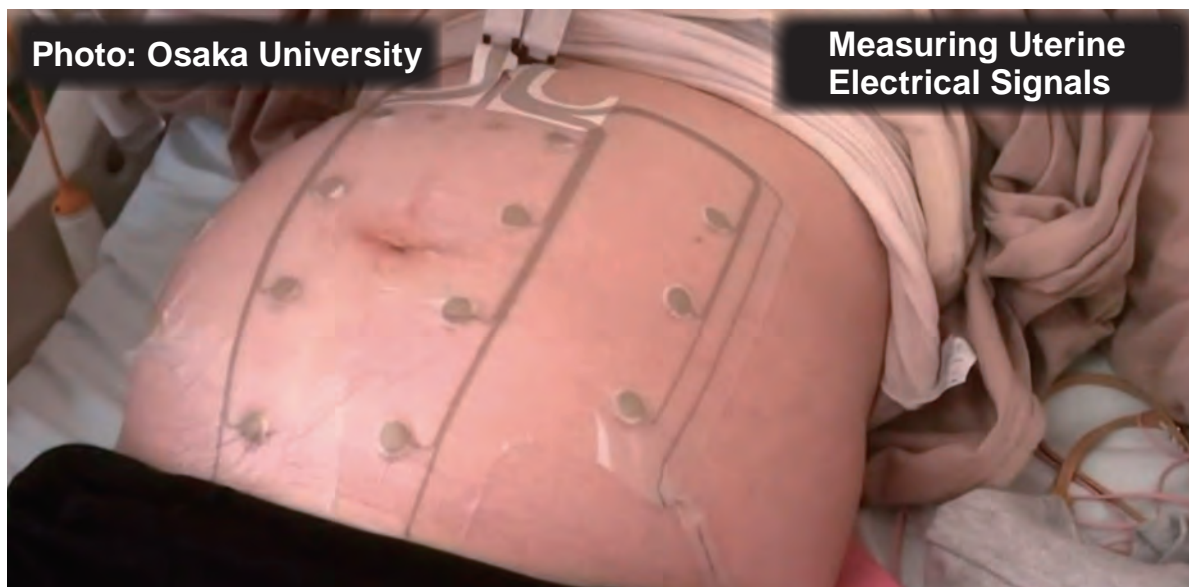
Principal Investigator

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Project Outline

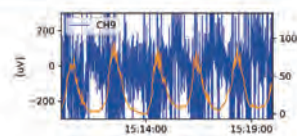
Measurement of uterine EMG and creation of differential diagnostic algorithm for false labor, preterm labor, and abruptio placenta

We will develop a novel electromyographic device and separation algorithm to detect uterine contraction. This device will be able to contribute for differential diagnosis of preterm labor, pseudo labor and abruptio placenta. In the future, we are considering the use of AI technology and its application to remote diagnosis.

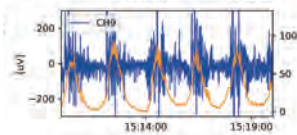


Extraction Process

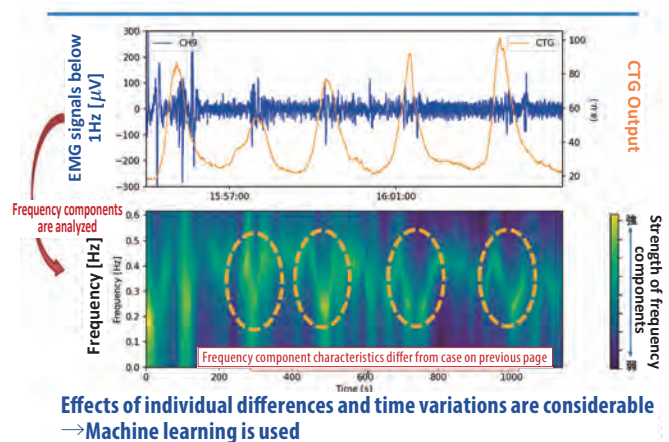
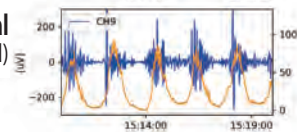
1) Measured signal (original)



2) Between-channel difference extraction



3) Out-of-band signal removal (Signals above 1Hz removed)



Target disease: Obstetric complications (premature birth, premature abruptio placenta, etc.)