

# The Sonic Womb Orrb listening experience at the Brain Forum 2016

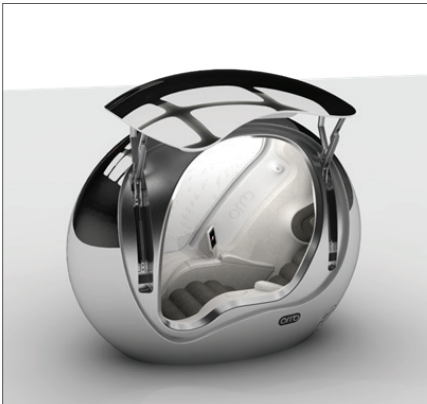
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Sonic Womb  
Productions

*What does a fetus hear in the womb? Answering this question will help tackle the important clinical issues for the treatment of premature babies in incubators. It also provides valuable information for parents and the general public about the development of fetal senses.*

The Sonic Womb research project is a multi-disciplinary collaboration between scientists, engineers and sound artists to re-create the experience of hearing in utero in an acoustically optimised enclosed space. It is based on the most up-to-date academic research on the development of fetal hearing, new in-house experiments, and state-of-the-art audio engineering and is delivered through a specially designed scientifically accurate “fetal filter” sound system in a unique configuration of auditory diffusion software and hardware.



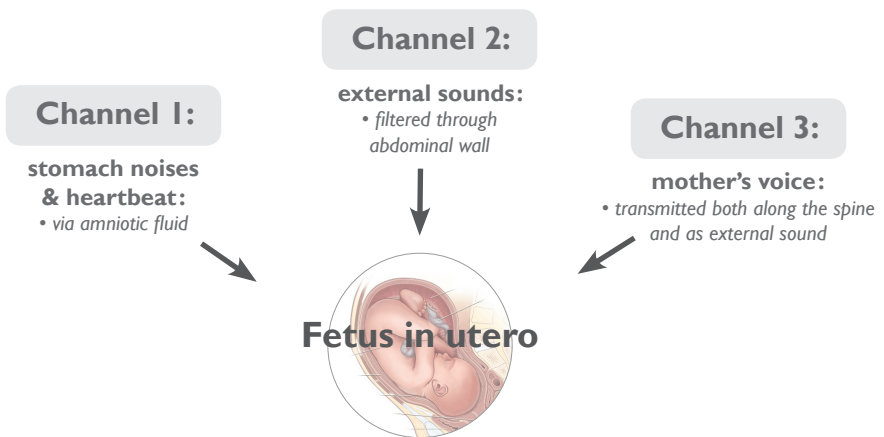
The sonic environment of the womb, and therefore the auditory exposure of the developing fetus in utero, is not well understood. Important clinical and societal implications follow from this and in particular, the ability for neonatologists to recreate womb-like conditions for the 15 million babies that are born prematurely worldwide each year. Improving the quality of the environment of the premature baby positively influences cognitive and social development in children.

The lack of understanding of what a fetus hears in utero also hinders mothers-to-be from making fully informed decisions about modern artificial sounds to which her unborn child can be safely exposed. Who wouldn't want to return to the origins of perception in the fetal state where hearing (from the 24th week of conception) is the only sense connecting consciousness to the outside world, a place long forgotten but eagerly rediscovered...

The Sonic Womb project is the brainchild of Professor Eric Jauniaux, an internationally established fetal medicine expert with extensive experience in the corresponding bioscience including human embryology and fetal physiology and anatomy, and Professor Julian Henriques, the Director of the Topology Research Unit at Goldsmiths College and joint head of the Media and Communications department and a sound artist.

Together with venture developer Aude Thibaut they founded Sonic Womb Productions Limited to research and create soundtracks for education, relaxation and therapeutic applications.

The Sonic Womb soundtrack presented at the Brain Forum is diffused around and through the listener's entire body. The listener experiences the full spectrum of vibrations from the three different sound sources involved in the fetal environment - external sounds, internal bodily sounds, and most intriguingly, the mother's voice, whose pathways are both external and internal to the fetal experience.



The Sonic Womb listening experience happens inside the Orrb, a wellness capsule developed by designer Lee McCormack and his team of engineers and sponsored by W Science. The Orrb attempts to solve the issue of wellness and learning in the workplace, to help relax, regain focus, increase performance and train for self-development.



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