

### **Re-experience hearing in the womb at The Brain Forum 2016**

**The Sonic Womb Orrb seeks to re-create the experience of hearing in utero in order to promote understanding of acoustic stress in premature infants. Like many other established and start-up businesses, this innovative interdisciplinary project will be unveiled during the industry exhibition held throughout The Brain Forum 2016 on 26 and 27 May in Lausanne, Switzerland.**

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, recent 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 Prof. Eric Jauniaux, an internationally established fetal medicine expert with extensive experience in the corresponding bioscience, including human embryology and fetal physiology and anatomy, and Prof. Julian Henriques, the Director of the Topology Research Unit at Goldsmiths College, joint head of the Media and Communications department, and a sound artist. Together with Aude Thibaut, an entrepreneur and a mother of now thriving but prematurely born twins, they founded Sonic Womb Productions Limited to research and create soundtracks for education, relaxation and therapeutic applications.

The Sonic Womb listening experience happens inside the Orrb, a wellness capsule developed by designer Lee McCormack and his team of engineers, and is funded by W Science. The Sonic Womb soundtrack is diffused around and through the listener's entire body. The listener experiences the full range of 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.

**For more information, please contact:**

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**About The Brain Forum – [thebrainforum.org](http://thebrainforum.org)**





The Brain Forum, first launched in 2013, brings together novel thinkers and pioneers in brain research, technology, healthcare and the economy. Researchers, engineers, healthcare professionals, entrepreneurs, industrialists, investors, funding agencies and policy makers will meet at The Brain Forum 2016, to advance our understanding of how the brain works and to accelerate the application and value of this knowledge in society and the economy.

