

## QHeart, Frontier Mediville to make low cost artificial heart

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**QHeart Medical, Australia**, a pre-clinical stage medical device company in collaboration with **Frontier Mediville**, is developing a low cost minimally invasive cardiac assist device – **Bio QCA (QHeart)**. This device aims to improve Quality of Life and reduce healthcare costs for millions of unserved patients worldwide and will be used for patients at risk for recurrent Heart Failure and Refractory Hypertension.

To announce the entry of this medical device into the healthcare system, **Frontier Mediville** organized a conference recently, which was chaired by **Dr. Peter Walsh**, PhD, CEO, QHeart Medical, Australia, **Dr. Madhusundan Rao Neeli**, PhD, VP R&D and Quality, QHeart Medical, Australia and **Dr. Adrian Lowry**, PhD, Research Scientist, QHeart Medical, Australia who had come to India from Australia to take the research further at **Frontier Mediville (Research Centre) at Gumminipoondi**.

Speaking on the occasion, **Dr. K M Cherian, Chairman and CEO of Frontier Lifeline Hospital** said “Bringing improvement in healthcare and addressing the unmet medical needs of India has been the foremost aim of Frontier Lifeline Hospital. In our quest to do so, we are immensely happy with our collaboration with QHeart Medical and this is our another step towards advancement in developing innovative healthcare”.

Commenting on the collaboration **Dr. Peter Walsh**, Inventor of the device and CEO of QHeart Medical Inc, Australia said “We are delighted to partner with a leader like Dr. K M Cherian and hope it brings revolution to improve the quality of life of our patients.”

To continue the research work on the cardiac assist device, a **Memorandum of Understanding (MoU)** was signed between **Australia and India** represented by the Prime Ministers of both the countries. Under the **terms and the agreement**, Frontier Mediville will oversee the planning, implementation and will be the in-charge of all preliminary approval which is necessary for the research.

In the composition and structure of their tissue, pigs are the closest animal to humans. Therefore studies would be followed by survival experiments for up to 6 months in pigs to evidence safety of chronic implantation before transitioning to safety studies in man.

A separate submission will be made in the future for the chronic survival studies with the help of management team and faculties at **Frontier Mediville**.

The BioQ CA, through its commercial partner QHeart, has obtained a broad patent position in Australia, EU and the USA (2 granted and 3 pending). The proof of concept was validated in mock artificial circuits and it has undergone basic physiological testing in pigs. The first generation of this device was also tested for chronic use for 2 months in a sheep model.

The device has received competitive funding from both the National Health and Medical Research Council (NHMRC). Recently additional funding was received from the Australia-India Strategic Research Fund for further development with improved engineering and large animal testing.

Australia-India Strategic Research Fund (AISRF), aims to validate a new fully implantable version of the device initially in acute and terminal porcine animal studies. More specifically, this research will allow further physiological validation of the device and also permit the development of a surgical protocol for a minimally invasive implantation.