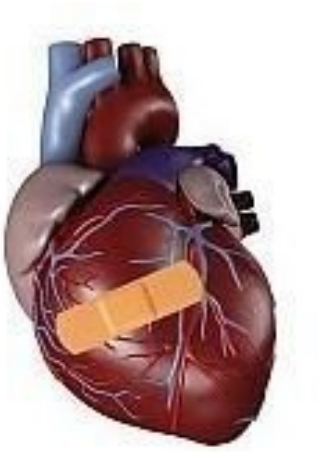
BioSpectrum
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ASIA EDITION

Taiwan, US univ implant heart pump on baby cow

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Singapore: TheÃ?Â Heart Science and Medical Devices Research Center, National Cheng Kung University, Taiwan (NCKU HSDMRC), and the division of cardiothoracic surgery, department of surgery, Duke University, US, have jointly carried out a cardiac assist device implantation on a calf.

Mr Roberto Manson and Mr Mani Daneshmand from Duke University Medical Center attended the workshop of Duke-NCKU collaboration on early interventional ventricular assist device hosted by NCKU and participated in the para-aortic blood pump (PABP) implantation surgery on calf.

Professor Pong-Jeu Lu, director, NCKU HSDMRC, had led his research team to develop the PABP for over thirteen years.

He said, "PABP is a new type of left ventricular assist device which has completed major design, prototype manufacturing and testing after more than 10 years of effort."

"This study could be extended to humans where clinical trials are to be conducted within the next two years, which will benefit more patients with heart failure in the future," Mr Manson said.

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"It is worthwhile mentioning that PABP is designed to be implanted in patients with heart failure prior to irreversible stage to hopefully restore heart function," according to Dr Lu.

However, the most important part would be the minimally invasive surgery, which allows rapid implantation into the aorta without affecting heart functions, thus shortening the recovery time after surgery.

Last year, Dr Lu's research team had signed a three-year agreement with the Division of Cadiothoracic Surgery, Department of Surgery at Duke University on the R&D of cardiac assist device, efficacy and safety regarding surgical treatment on patients with heart failure and the pathway of cell recovery after long-term PABP support.

"NCKU's PABP research outcome can be applied on patients with heart failure of non-refractory stage," noted Dr Daneshmand, who was impressed by NCKU's latest medical invention. He also added, "It can also be used to restore heart function of patients with late stage heart failure and prolong patient's life with reasonable quality; hence it is a very advanced piece of medical innovation."