

***Investment Brief for
Heart Assist Technologies Pty Ltd***

***NSW
AREA HEALTH
SERVICES***

Office of Commercialisation

***For further information under a Confidential Disclosure
Agreement, please contact the following OoC team member***

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Heart Assist Technologies Pty Ltd

Summary

This is an implantable cardiac device to boost the capacity of the heart using a direct compression technology which takes a unique approach over other mechanical heart assist devices.

It has undergone significant development to the proof of concept stage, and prototypes have been demonstrated and used in sheep with a high success rate.

The device has been widely recognized and has received prizes and awards.

This technology has been developed by leading-edge interventional cardiologists based at the Cardiac Technology Centre at Sydney's Royal North Shore Hospital.

Advantages

Support heart and improve circulation without blood contact
Rapid implantation without need for blood conduit
Ability to restore cardiac function

Market

The potential market (USA) for mechanical heart assistance devices has been estimated at over 1 million per year by 2011.

Information Available

An information memorandum is available for this Invention which is currently held within a company called Heart Assist Technologies Pty Ltd.

Industry: Medical Device/Technology

Proposed Business: A unique implantable, non-blood contacting, direct cardiac compression device to assist the failing heart.

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Business Description

After eight years of intense research and development completed by the team in the Cardiac Technology Centre at Royal North Shore Hospital in Sydney, Heart Assist Technologies Pty Ltd was formed to develop their unique implantable direct cardiac compression (DCC) 'Heart Patch' to the stage of clinical trialling. The Heart Patch is an implantable cardiac assist device to boost the pumping capacity of failing hearts. The device is small, easily implantable, and non-blood contacting thus avoiding the risk of blood clots. It has been shown to be effective in assisting a severely failing, and even an arrested heart, by restoring and boosting the pumping capacity to near normal levels. In doing this, it restores the quality of life of the people with heart failure.

Value Proposition

The technology has had rigorous proof of principle involving extensive animal testing (in sheep), and presentations at scientific meetings both nationally and internationally attracting prestigious prizes and awards.

Potential Market Applications of the Technology

Heart failure is increasing with 5 million sufferers in the USA alone. Many of them are survivors of a heart attack. The management of heart failure patients consumes health resources and strains sufferers, families and institutions.

Competitors

Flow-through devices (not in the same category as the Heart Patch) which are currently available or under development are manufactured by Novacor, WorldHeart, Thoratec, Abiomed, and Arrow Intl. To our knowledge no other manufacturer has entered clinical trials for a DCC device in a similar category to the Heart Patch.

Sustainable Advantage

The team in the Cardiac Technology Centre at Royal North Shore Hospital in Sydney, has developed a unique implantable direct cardiac compression 'Heart Patch' to the stage of clinical trialling. The principle of operation of the device has been extensively tested in animal model of heart failure. The non-blood contacting characteristic of the Heart Patch provides significant regulatory affairs advantages for the potential registration of the device, and a shorter time to market when compared to other implantable devices.

Status of Intellectual Property

Several patents have been filed to protect the technology and are fully owned by Heart Assist Technologies Pty Ltd.

- WO2005014082-An Implantable direct cardiac compression device and system.
- US2004106871, EP1363536-Determining the volume of a normal heart and its pathological and treated variants by using dimension sensors.
- AU5199300/AU742406, BR0011694, CA2377362, and CN1364091/CN1167472, EP1191958, HU0201733-An assist device for the failing heart.
- NZ515492-A heart actuator device for use in treating the failing heart.
- Other national phase applications have been entered.

