



## **ASX ANNOUNCEMENT**

**31 August 2005**

### **First Animal Implant of HeartWare's Miniaturised Ventricular Assist Device**

HeartWare is pleased to announce the commencement of animal studies for the Company's Miniaturised Ventricular Assist Device (MVAD). The MVAD was successfully implanted in a calf by Dr Mark Slaughter, Director of Mechanical Support Systems at Christ Hospital in Chicago.

The MVAD is a miniaturised implantable mechanical blood pump. With a volume of 5 cubic centimetres, the MVAD is approximately one tenth the size of HeartWare's HVAD, already the smallest "third generation" pump under development. Like the HVAD, the MVAD is designed to provide up to ten litres of blood per minute. A normal adult requires approximately 7 to 10 litres to support mild to moderate exercise.

HeartWare is currently developing procedures that might allow the MVAD to be implanted by minimally invasive surgical techniques and, potentially, by cardiologists as well as cardiac surgeons. This is expected to facilitate use of the device for treating less severe heart failure patients, significantly expanding HeartWare's addressable patient population.

HeartWare CEO, Mr Stuart McConchie, commented:

"The commencement of animal studies marks an important milestone in the development of our miniaturised device. Whilst the MVAD is still at an early stage of development, the prototype operation and early test results are encouraging."

Over the next six months, HeartWare will conduct a number of follow-on temporary (or "acute") animal studies. Thereafter, a series of long term animal implants is planned.

The MVAD is the second device in HeartWare's product pipeline. The Company's lead device, the HeartWare HVAD, is expected to commence human clinical trials in the first quarter of 2006.

### **About HeartWare**

HeartWare is developing a family of proprietary circulatory assist devices to treat patients with congestive heart failure. Heart failure affects 10 million people globally, with over one million new patients diagnosed every year. Some 100,000 patients per year are expected to be eligible for device based treatment.

HeartWare's first left ventricular assist device, the HVAD, is expected to commence human clinical trials in early 2006, with first sales planned for 2007. With a volume of 45cc, the HVAD is substantially smaller than other "third generation" full output pumps in development, giving rise to significant potential clinical advantages.

For further information:

[www.heartware.com.au](http://www.heartware.com.au)

Howard Leibman  
Director Corporate Development  
HeartWare Limited  
(02) 8215 7604 / 0402 440644

Paula Hannaford / Stuart Barton  
Gavin Anderson & Company  
0413 940 180 / 0404 054 857