



Media release – embargoed till 14 November 2012

## **Clearbridge VitalSigns reveals the CardioLeaf® ‘family’ at Medica 2012**

### **World’s thinnest, fully-integrated 3-Lead ECG monitor showcased at 3-day event**

*14 November 2012, Dusseldorf Germany* – Clearbridge VitalSigns, a Singapore-based medical device company, today revealed that it is expanding its flagship product, CardioLeaf®, into a family of three different products - CardioLeaf® FIT, CardioLeaf® PRO and CardioLeaf® ULTRA. These three products leverage upon the same ultra-low power ECG-on-Chip technology that allows for fully integrated, wireless, multi-lead (up to 12-lead), full heart cycle electrocardiogram (ECG) monitoring and recording. Clearbridge VitalSigns made this announcement at Medica, the world’s largest medical trade fair.

With a thickness of just 9mm, CardioLeaf® is the world’s thinnest fully-integrated 3-Lead ECG monitor. CardioLeaf® is worn as a simple-to-use, wireless and water-resistant plaster on the chest, providing patients with much freedom of movement and the ability to carry out their normal daily activities. CardioLeaf’s® patented, ultra-low power consumption technology enables full ECG data to be accurately captured for up to seven days. Its multi-channel architecture means the device is flexible enough to incorporate other monitoring vitalsign or sensory recorders such as an electromyogram (EMG measuring electrical activity produced by skeletal muscles) or an electroencephalogram (EEG measuring electrical activity along the scalp). In addition, other components can be added such as accelerometers (activity monitoring), or temperature sensors for more holistic vital signs monitoring.

Unlike commonly-available single-lead ECG devices, the 3-Lead CardioLeaf® records three times as much ECG data and at an extended operating time, providing a more complete and robust picture of the human heart for analysis. This is especially important for cardiac arrhythmias, which are sporadic and difficult to monitor.

The family of CardioLeaf® products will be targeted at different audiences in the following manner:

- 1) **CardioLeaf<sup>®</sup> FIT** – Via a three minute quick check, consumers can use CardioLeaf<sup>®</sup> FIT to determine their personal “cardiac health” (measuring cardiac index and heart rate) and stress levels. This will allow them to actively manage their daily activities, preventing potential heart-related complications. It is also suitable for professional athletes, who want to monitor their fitness levels and ensure their heart and mental load is always working at optimal rates.
- 2) **CardioLeaf<sup>®</sup> PRO** – This is a medical-grade, extremely simple-to-use device that does not need external cables. It is able to monitor and record the heart rate as well as the full heart cycle waveform, which provides healthcare professionals with superior data to understand the patients’ heart condition. Its unique “dual-mode” function allows a three minutes event or a 24 hour Holter recording, providing both patients and doctors increased flexibility in monitoring a wider variety of cardiac conditions. It can also be used for remote monitoring of abnormal heart rhythms anywhere, anytime.
- 3) **CardioLeaf<sup>®</sup> ULTRA** – This product is targeted at clinical and research settings, where prolonged ECG monitoring is required, such as with post cardiac surgery or stroke recovery patients. Patients wear the single-use device continuously for up to seven days, to monitor their heart activity as they go about their regular life. The product is also targeted at drug discovery companies or clinical research organisations, which need to monitor the heart activity of clinical trial patients taking new drugs.

“We designed CardioLeaf<sup>®</sup> to be an ultra-thin, ultra-lightweight and ultra-comfortable ECG plaster. We quickly realised that it would be able to serve different market segments and that it would be better to develop a range of products, which would allow us to customise each to a specific group users. Moving forward, we hope to partner with research organisations, healthcare institutions and cardiac telemetry service providers, who would be keen to work with us to bring patient monitoring to the next level and improve patient compliance and comfort,” said Mr Johnson Chen, Managing Director, Clearbridge VitalSigns.

“A multi-lead ECG device is an important tool that helps practitioners to provide a more detailed diagnosis of a cardiac event, based upon better quality data and reliability. ECG devices that support telemedicine would also be useful, as they result in greater convenience to both patients and healthcare professionals, and may help to lower healthcare costs. With cardiovascular disease being one of the leading causes of death today, new devices that help in early detection can play a key role in preventing future heart-related complications”, said Associate Professor Tan Ru San, Senior Consultant, Department of Cardiology and Director, Clinical Trials, National Heart Centre Singapore.

In September 2012, Clearbridge VitalSigns established a partnership with Maxim Integrated (NASDAQ: MXIM) to incorporate CardioLeaf within an integrated telehealth fitness shirt that can monitor patients' vital signs, such as cardiac activities, body temperature and motion. This shirt will be on display at Medica 2012 from 14 to 17 November (Hall 16, Stand 16G57).

- End -

**About Clearbridge VitalSigns**

Clearbridge VitalSigns is a National University of Singapore spin-off company that is developing the CardioLeaf® digital plaster product line. The CardioLeaf® is a comfortable, fully integrated, ultra-thin, ultra-low power, multi-lead (up to 12-lead), extended wear medical device to monitor human vital signs. The Company leverages on innovative and proprietary technologies from our research partners in Singapore. Clearbridge VitalSign is an incubatee of Clearbridge Accelerator, a Singapore government co-funded medical technology incubator. For more information visit [www.clearbridgevitalsigns.com](http://www.clearbridgevitalsigns.com)

Media enquiries can be directed to:

Haiping Choo

Manager Clearbridge VitalSigns

Mobile: (65) 9-738 7866

Email: [haiping@clearbridgevitalsigns.com](mailto:haiping@clearbridgevitalsigns.com) or [media@clearbridgeaccelerator.com](mailto:media@clearbridgeaccelerator.com)