



ASX ANNOUNCEMENT

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Results of Validation Trials Between CardieX & Blumio Announced at IEEE Conference Further Advancing & Strengthening CardieX's Wearables & Direct-To-Consumer Health Strategy

Highlights

- CardieX joint development partner Blumio, Inc ("Blumio") has presented the results of a trial undertaken with Macquarie University, Sydney in partnership with CardieX, which demonstrated that Blumio's novel radar-based blood pressure sensor can measure radial arterial waveforms.
- The results from the study is a key step towards demonstrating that Blumio's sensor can be used by group company AtCor's innovative SphygmoCor® system for central blood pressure ("cBP") estimation – a key diagnostic element for measuring hypertension and cardiovascular disorders.
- CardieX had previously executed a Joint Development Agreement ("JDA") with Blumio to develop intelligent sensor technology to be integrated into wearable devices with CardieX's AtCor division providing key algorithms and FDA-approved technology including its market-leading SphygmoCor® system for measuring central arterial blood pressure.
- The combination of CardieX IP together with Blumio's sensor has potential to significantly disrupt the fast-growing health wearable market – including the identification and treatment of hypertension, arterial stiffness, and related cardiovascular disorders.
- Trial validation enables Blumio to move forward to develop embedded software and associated reference hardware for their sensor module that will together launch Blumio and CardieX into the fast-growing medical and direct-to-consumer health and wellness wearable market.
- It is anticipated that the innovative sensor technology developed with Blumio under the JDA will lead to lucrative joint licencing partnerships with key wearable device, digital health, and software companies.
- Cuffless wearable blood pressure monitoring has been identified as a US\$45B market opportunity.
- The results of the study were presented by **Blumio's Principal Engineer, Dr. Jessi Johnson**, at the 2019 IEEE-EMBS International Conference on Biomedical & Health Informatics ("IEEE Body Sensor Networks Conference") jointly organised with the IEEE-EMBS International Conference held 19-22 May at the University of Illinois in the US.

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CardieX Limited (ASX: CDX) (CardieX, the Company) is pleased to announce the presentation of results of a validation trial undertaken at Macquarie University, Sydney which demonstrated that Blumio's novel radar-based sensor can measure radial arterial waveforms containing strength, shape, and spectral signatures suitable for pulse wave analysis and pulse transit time measurement for blood pressure tracking.

The trial results were presented at the IEEE Body Sensor Networks Conference held at the University of Illinois in the US on 19-22 May. The conference brings together the rapidly developing fields of biomedical and health informatics and encompasses methods to extract and communicate information from data in order to revolutionise healthcare.

The trial study compared Blumio's sensor to a tonometer, the gold standard for non-invasive measurement of radial arterial waveforms, and demonstrated that Blumio's novel radar-based sensor can be used by AtCor's SphygmoCor® system for cBP estimation. The study is a continuation of the JDA between Blumio & CardieX. Under the JDA previously announced (ASX: 12 December 2018), the companies are jointly developing sensor technology which will be able to read both brachial and central blood pressures and assess arterial stiffness and cardiovascular health.

The results of the study allow CardieX and Blumio to move forward to develop and commercialise the intelligent sensor technology referenced under the JDA which can be integrated into a wide range of consumer and medical devices including fitness trackers, smart-watches, and medical devices.

CardieX Limited CEO Craig Cooper commented:

"We have reached a significant milestone with results from the validation trial with Blumio which demonstrated that our SphygmoCor® system, which uses a tonometer, can potentially use the Blumio sensor. This gives both parties under the JDA the go-ahead to move to the next step in commercialising and developing intelligent sensor technology that can be integrated into wearable devices using our cBP technology."

Blumio's CEO Catherine Liao commented:

"This is Blumio's first step toward commercialization of our revolutionary sensor technology. By demonstrating that the signal from our sensor is as good as the signal from a tonometer, it provides our development partners a superior alternative for their next-generation, wearable health monitoring solutions."

Also commenting on the results of the trial at Macquarie, Professor Alberto Avolio stated:

"The Blumio sensor uses radar technology in combination with sophisticated signal processing. An important distinguishing feature of the Blumio sensor is that it is essentially contactless, thus increasing its potential applications."

Professor Avolio BE, PhD (UNSW), FIAMBE, is a Professor of Engineering at The Australian School of Advanced Medicine at Macquarie University and the former Chairman of the Pulse of Asia International Symposium, the leading Asia-Pacific forum on vascular medicine and related technologies. Professor Avolio was also present at IEEE.

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About CardieX

CardieX Limited is a global health technology company that develops digital and device-based solutions for large-scale population health disorders. The Company's XCEL device is the world leader in measuring "central blood pressure" which is considered essential for the management of hypertension and related cardiovascular disorders. CardieX also has a 50/50 joint venture partnership with Blumio, Inc in Silicon Valley for the development of a radar-based blood pressure sensor incorporating CardieX technology. In November 2018 CardieX entered into an agreement with telehealth services provider, inHealth Medical Services, Inc, allowing CardieX to acquire up to 50.5% of inHealth by way of a convertible note.

About Blumio

Blumio Inc, is a Silicon Valley based California Company that develops non-invasive radio frequency sensors designed to measure blood pressure and other cardiovascular diagnostics.

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