



ASX ANNOUNCEMENT

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CardieX Completes Major Milestone in the Development of Wearable Sensor Technology

CardieX Limited's (ASX: CDX) (CardieX, the Company) 100% subsidiary ATCOR has this week completed a significant milestone in its engineering & technology program and has derived a series of unique and heart and arterial health features from a PPG sensor based on the Company's core SphygmoCor® technology.

Highlights

- **Significant technology development milestone of wearable sensor technology for clinical and consumer applications.**
- **Technology will aim to assist in effective remote diagnosis and monitoring of hypertension and cardiovascular disease.**
- **Results to be shortly presented to ATCOR wearables partner Mobvoi, Google's official partner in China for Google's Wear OS platform.**
- **ATCOR has also been requested to demonstrate results to several major consumer wearable & technology companies.**

CardieX Positioning, Mission and Vision

Our company mission and vision is to migrate our FDA cleared SphygmoCor® technology into wearable devices and smart watches, both for a consumer and medical setting, and we believe that CardieX is well placed to achieve any required additional FDA clearances using the fast track process given its existing FDA clearance for its technology.

This involves a complex and significant technology and engineering effort in order to extract a waveform from a wearable (PPG or other) sensor that is equivalent to our current FDA cleared device – which is considered the “gold standard” for measuring an aortic arterial pressure waveform with cardiovascular related features.

CDX is the only company that has FDA clearance for measuring central blood pressure, arterial stiffness and other proprietary cardiovascular parameters non-invasively in adults. Indeed, our original FDA clearance for SphygmoCor CvMS, XCEL and Oscar 2 devices was based on the Company being able to prove that our technology was substantially equivalent to the standard invasive measurement used in ICU and clinical settings.

It is our unique ability to extract a medically reliable vascular waveform non-invasively that forms the basis of our devices as well as our global partnerships. Our SphygmoCor® technology is in over 4,500 installations globally and is used by leading research and pharmaceutical companies such as Bayer, AstraZeneca, GSK, and others.



PPG Sensor Development and Focus

We have determined that we can extract a waveform from a PPG sensor that is equivalent to our SphygmoCor® derived waveform and from that we open the path to the further measurement of a number of other clinically relevant vital signs.

PPG sensors are one of the most widely used optical sensor arrays on wearable devices consisting of LEDs and photodetectors. Most PPG sensors are used to create consumer-grade capabilities, such as heart rate measurement and other general fitness features. They are usually represented by a combination of red, green, and infrared light diodes on wearables and smart watches.

The key principle here is that we have determined that we can extract a substantially equivalent performance to our FDA cleared technology central arterial waveform and cardiovascular related features from a PPG sensor that we had previously only been able to do with a brachial cuff on a patient's arm using our already FDA cleared device.

Whilst all medical devices in the USA need to obtain 510(k) clearance from the FDA there is a fast track process for clearance in the normal course for technologies that are based on previously cleared technologies such as our sCor technology and we believe that CardieX is well placed to achieve that clearance using the fast track process given its existing FDA clearance for its technology.

Major Milestone in Wearable Sensor Development Under Mobvoi Joint Development Agreement

Through internal human studies (13 subjects, 157 signals, with an age range of 20 to 65 years, providing results distinguishing between healthy, non-healthy, young and elderly participants) and in conjunction with Macquarie University (Dr Mark Butlin of the Department of Biomedical Sciences), ATCOR has been able to demonstrate a series of specific heart and arterial health features through multiple PPG sensor colour spectrums, leveraging proprietary IP on the foundation of its gold standard SphygmoCor® algorithms.

ATCOR has been able to determine four (4) unique and proprietary heart and arterial health features that we believe have never before been extracted from a PPG sensor. During the study period ATCOR was able to extract from a PPG sensor substantially equivalent data that is usually only obtained by medical grade devices such as the Company's SphygmoCor® technology. The importance of this is that it opens the pathway for medical grade data to be remotely obtained from a wearable device.

Details of these developments will be first presented to ATCOR's wearables partner and Mobvoi, over the next few weeks as another phase of the Joint Development Agreement (JDA) between the parties has now been successfully completed. Mobvoi is one of the fastest growing AI and consumer electronic companies in China in the smart wearables segment and is Google's official partner in China for Google's Wear OS platform. Wear OS is a version of Google's Android operating system designed specifically for smart-watches and other wearables. Major investors include Google, Volkswagen, ZhenFund and Sequoia Capital.

ATCOR will then present to major consumer and wearable device companies which have requested demonstrations of these results as the Company looks to further commercialize these development efforts.



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About CardieX

CardieX 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 disorders.

CardieX also has a 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 inHealth Medical, Inc allowing CardieX to acquire up to 50.5% of inHealth by way of a convertible note.

In September 2019 CardieX signed a joint development agreement with Mobvoi Information Technology Co. Ltd (Google's official Wear OS partner in China) to jointly develop an ecosystem of "smart heart" and other consumer health applications for the Google Wear OS platform in China based on CardieX subsidiary, ATCOR, software and algorithms.