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HeartBeam’s Deep Learning Algorithms Demonstrate High Rates of Accuracy for Detecting Arrhythmias

- *New study presented at HRX Live 2025 demonstrates continued advancement of company’s AI program*
- *HeartBeam's AI algorithm performed equally well on HeartBeam 3D ECG system and standard 12L ECGs in classifying atrial fibrillation, atrial flutter and sinus rhythm*
- *Deep learning algorithms to be used for future FDA submissions to enhance product offerings*

SANTA CLARA, Calif.--(BUSINESS WIRE)-- **HeartBeam, Inc.** (NASDAQ: BEAT), a medical technology company focused on transforming cardiac care by providing powerful personalized insights, today announced new study data demonstrating that there were no significant differences in the detection of atrial fibrillation, atrial flutter and sinus rhythm when HeartBeam’s deep learning algorithms were applied to the HeartBeam System or to standard 12-lead ECGs. The new data was presented by Dr. Joshua Lampert, Cardiac Electrophysiologist and Medical Director of Machine Learning at Mount Sinai Heart in the Mount Sinai Hospital, during HRX Live 2025 in Atlanta.

In the study, ECG recordings were taken with both the HeartBeam System (which captures the heart’s electrical signals from three distinct directions) and a standard 12-lead ECG in 201 consecutive patients. Deep learning algorithms previously developed from over 10,000 standard 12-lead ECGs were applied to both sets of recordings and compared against diagnoses made by an expert panel of three electrophysiologists. The study found:

- **No significant differences** in multiple accuracy measures between the HeartBeam group and the standard 12-lead ECG group across diagnosis of 131 sinus rhythm, 57 atrial fibrillation, and 13 atrial flutter rhythms.
- **High accuracy rates** for detecting atrial fibrillation, atrial flutter and sinus rhythm in both groups (94.5% HeartBeam vs. 95.5% standard 12-lead ECG).

"This study represents an exciting step forward in making advanced cardiac monitoring more user-friendly and widespread," noted Rob Eno, Chief Executive Officer of HeartBeam. "The comparable performance of deep learning algorithms applied to HeartBeam’s credit card-sized device with 3D, non-coplanar signals and traditional 12-lead ECG systems for detecting common arrhythmias like atrial fibrillation and flutter opens new avenues for patient care, particularly in settings where a full standard 12-lead ECG might be impractical.”

Data from HeartBeam’s deep learning algorithms, including data from this study, are planned to be used to support future FDA submissions to enhance forthcoming product offerings.

About HeartBeam, Inc.

HeartBeam, Inc. (NASDAQ: BEAT) is a medical technology company dedicated to transforming the detection and monitoring of critical cardiac conditions. The Company is creating the first-ever cable-free device capable of collecting ECG signals in 3D, from three non-coplanar directions, and synthesizing the signals into a 12-lead ECG. This platform technology is designed for portable devices that can be used wherever the patient is to deliver actionable heart intelligence. Physicians will be able to identify cardiac health trends and acute conditions and direct patients to the appropriate care – all outside of a medical facility, thus redefining the future of cardiac health management. HeartBeam's 3D ECG technology received FDA clearance for arrhythmia assessment in December 2024. The 12-Lead ECG synthesis software is under FDA review. The Company holds over 20 issued patents related to technology enablement. For additional information, visit HeartBeam.com.

Forward-Looking Statements

All statements in this release that are not based on historical fact are "forward-looking statements." While management has based any forward-looking statements included in this release on its current expectations, the information on which such expectations were based may change. Forward-looking statements involve inherent risks and uncertainties which could cause actual results to differ materially from those in the forward-looking statements, as a result of various factors including those risks and uncertainties described in the Risk Factors and in Management's Discussion and Analysis of Financial Condition and Results of Operations sections of our Forms 10-K, 10-Q and other reports filed with the SEC and available at www.sec.gov. We urge you to consider those risks and uncertainties in evaluating our forward-looking statements. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. Except as otherwise required by the federal securities laws, we disclaim any obligation or undertaking to publicly release any updates or revisions to any forward-looking statement contained herein (or elsewhere) to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

Cleared Indications for Use

The HeartBeam System is a portable non-invasive recorder intended to record, store, and transfer a patient's 3-Lead (in three-directions) electrocardiogram (ECG) acquired from 5 electrodes. The device is intended to be used by adult patients in either a clinical setting or at home. The device does not conduct cardiac analysis and can be used with an ECG Viewer software system for manual interpretation of non-life-threatening arrhythmias by a physician or healthcare professional. For full safety information, see the full **Instructions for Use** or **Clinician Portal Manual**.

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