



The Power of a 12-Lead ECG

Always with the patient

First Quarter 2024

Financial Results Conference Call

NASDAQ: BEAT

May 9, 2024



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HeartBeam AIMIGo™ has not yet been evaluated by the FDA and are not approved for clinical use in the USA or other global geographies.

Agenda

- Introduction and Company Overview
- AIMIGo Regulatory and Clinical Study Updates
- AI Program Updates
- Financial Results
- Closing Summary
- Q&A



Branislav Vajdic, PhD
CEO & Founder

30 years of experience in technology development and senior management positions. At Intel, he was the designer of first Flash memory and two key inventions that enabled Flash as a product and led engineering groups responsible for Pentium 1 through Pentium 4 designs.



Rob Eno
President

28 years of experience with a proven track record of developing markets and commercializing disruptive medical technologies. During his career he has created go-to-market strategies for multiple breakthrough products and held senior marketing and sales leadership roles.



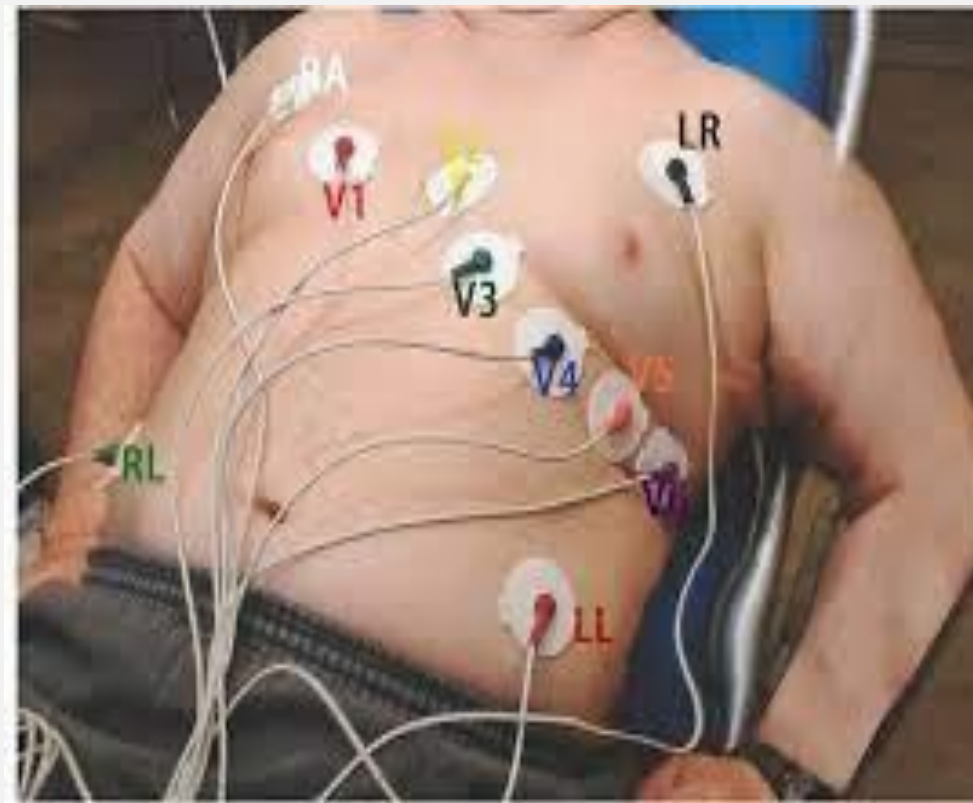
Rick Brounstein
Consulting CFO

30 years of experience in health technology senior management. During his career he has held positions including Chief Financial Officer, Chief Operating Officer, Treasurer and Accounting Manager.

No Heart Attack Solution Practical for Home Use on the Market

**IMPRACTICAL
FOR HOME USE**

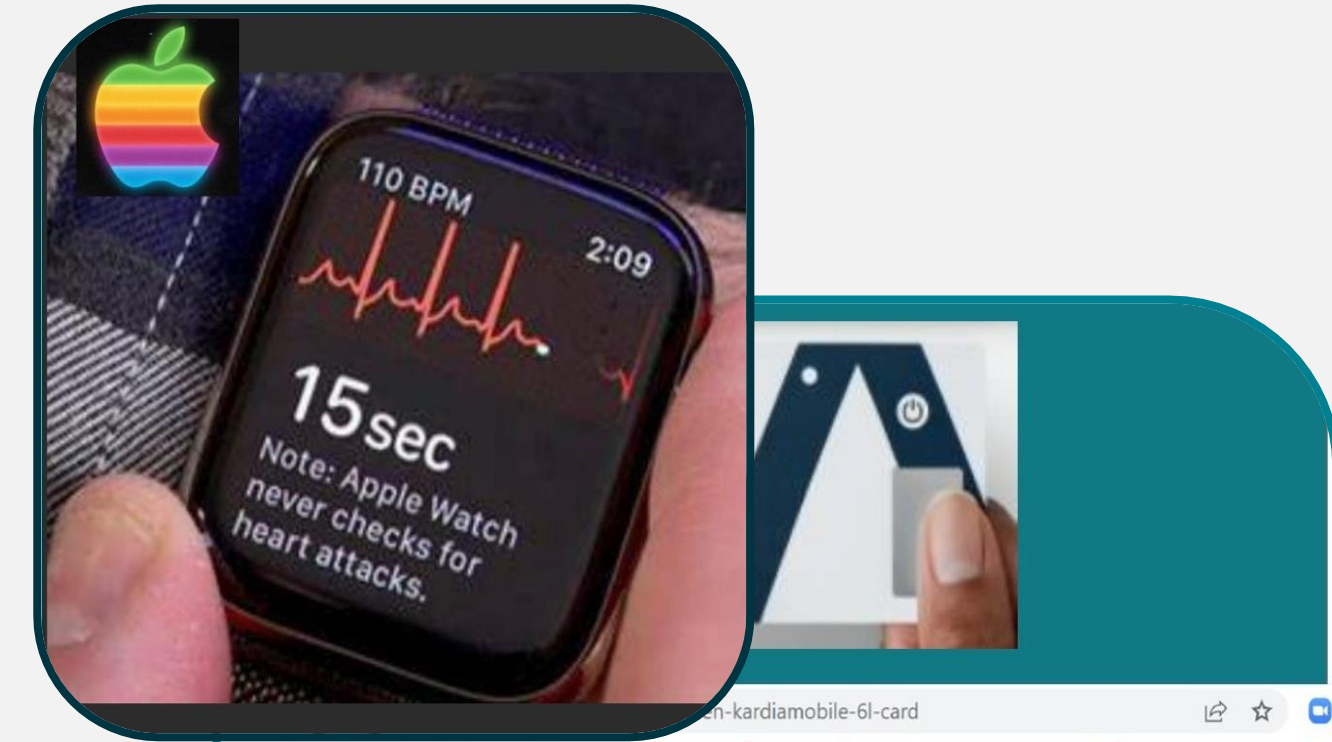
TRADITIONAL 12-LEAD ECG



Standard 12-lead ECGs require a health care professional and are not practical for home use

**DO NOT DETECT
HEART ATTACKS**

PATIENT-FRIENDLY



Get your Kardia device



Start taking control of your heart health from home with Kardia. Get your device today.

~~KardiaMobile is not tested or recommended for use with pacemakers and ICDs.~~
KardiaMobile does not check for heart attack.

HeartBeam AIMIGo: Easy-to-Use Credit Card-Sized 12-Lead ECG

HEARTBEAM AIMIGo:

- First and only credit card-sized 12-lead ECG device
- Handheld device with no external electrodes or wires
- Captures heart's signals in 3 projections (X, Y, Z)
- Provides a more complete view of the heart than a standard 12-lead ECG
- Synthesizes a 12-lead ECG



Patients Cannot Determine if They Are Having a Heart Attack

Ignore symptoms



Go to Emergency Department

Lost lives

- » Patients delay an average of 3 hours before seeking care
- » Delays lead to increased mortality
- » Greater incidence of heart failure among these patients



Am I having a heart attack?

Wasted healthcare dollars

- » Chest pain is second most common reason for an ED visit

82% of chest pain ED visits are unnecessary

Mortality rate increases by

40%



for an average wait of 3-4 hours after symptoms begin



Cost to the healthcare system each year

12-Lead ECG is the Standard of Care in Cardiology:

WHY AIMIGo MATTERS

TRANSFORMATIONAL:

AIMIGo makes 12-lead ECG available to patients and their physicians 24/7

IMPACT:

- Ability to take frequent 12-lead ECG recordings over time in various real-life situations is potentially of major diagnostic value
- Trending of 12-lead ECGs over time – symptomatic and asymptomatic – can yield new insights on cardiac health
- AI applied to longitudinally collected, data-rich VECGs could lead to unsurpassed predictive and diagnostic algorithms

Frequent 12-lead ECGs has potential to be a new paradigm

HeartBeam US Market Opportunity



Potential to address
Atrial Fibrillation market
and
6x larger Coronary
Artery Disease (CAD)
market

MARKET OPPORTUNITY

- AFib: \$2 Billion
- CAD: \$12+ Billion

\$14B+

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AIMIGo FDA Clearance Will be a Major Milestone

FOUNDATION FOR FUTURE SUBMISSIONS AND PRODUCT PIPELINE

- Expect to be first patient-held 3D VECG device cleared by the FDA
- Basis for further HeartBeam FDA submissions
- 3D VECG approach is excellent platform for AI algorithms
- AI algorithms on top of the rich VECG data, especially with the longitudinal readings, could result in unsurpassed predictive and diagnostic capabilities

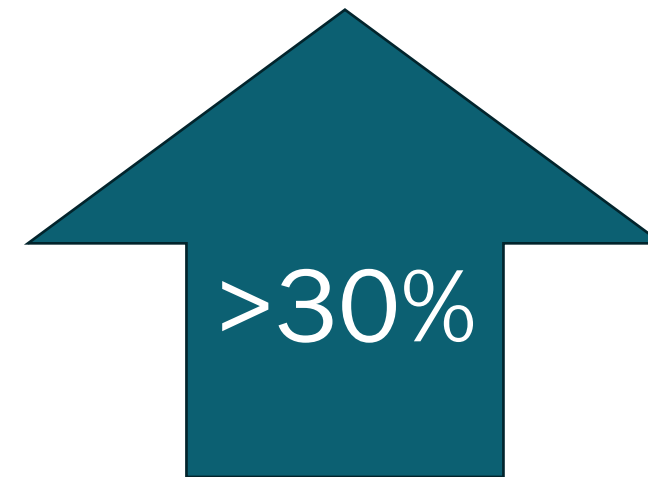
Foundational Study Demonstrates Excellent Performance of VECG in Coronary Occlusion Detection

HEARTBEAM MATCHED 12-LEAD ECG PERFORMANCE



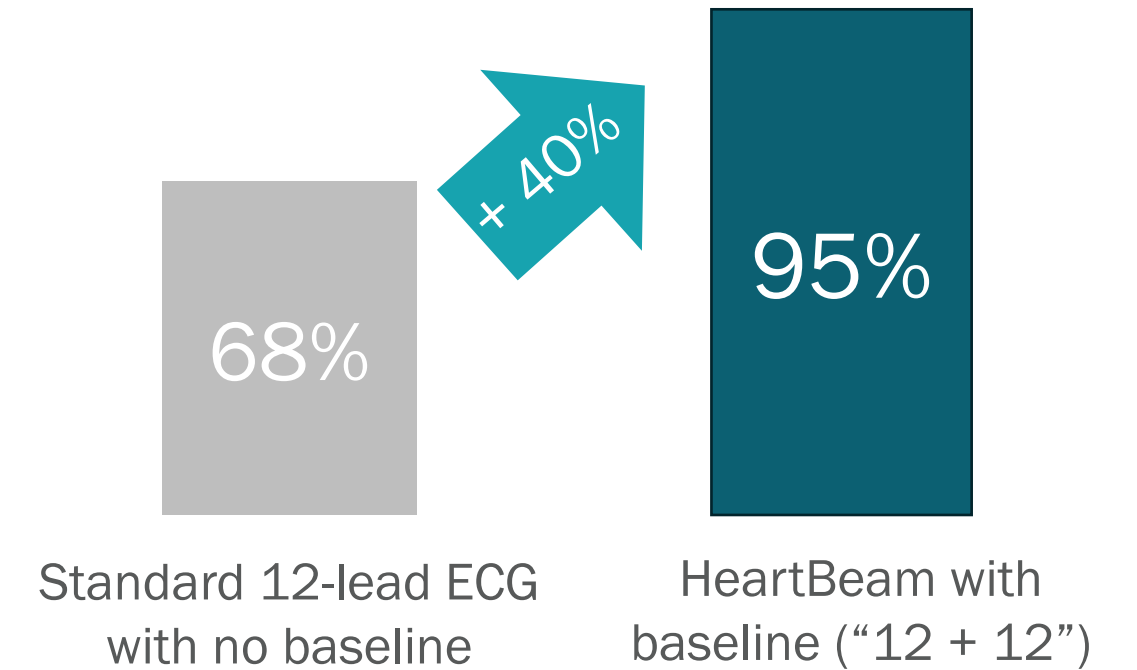
Technology designed for use with patient equaled standard of care 12-lead ECG

BASELINE ENHANCES DIAGNOSTIC PERFORMANCE



HeartBeam and standard ECG performed much better when baseline included

HEARTBEAM WITH BASELINE OUTPERFORMS A SINGLE 12-LEAD ECG



HeartBeam always includes baseline. Patients at ER may not have baseline

Shvilkin, et al, Coronary Artery Occlusion Detection Using 3-Lead ECG System Suitable for Credit Card-Size Personal Device Integration. JACC Adv. 2023 Aug, 2 (6)

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Regulatory Status for AIMIGo Product

STATUS

- HeartBeam AIMIGo 510(k) application submitted
- Cornerstone submission for HeartBeam

PRODUCT

- Clearance as a 3D VECG recording device
- Includes credit card-sized device, patient application, physician portal and wireless communications between elements

TIMING

- Working interactively with FDA, preparing official responses
- Guidance unchanged: clearance anticipated Q2 2024

Regulatory Status for 12-Lead Synthesis Software

Algorithm to
synthesize a 12-
lead ECG from X, Y
and Z projections

- 510(k) pathway
- Pivotal study underway to show similarity to a simultaneously recorded hospital-based 12-lead ECG
- Submission anticipated in Q3

Enrollment Progressing in VALID-ECG Pivotal Study

STUDY OVERVIEW

- VALID-ECG (Clinical Validation of the AIMIGo 12-lead ECG Synthesis Software for Arrhythmia Detection) Pivotal Study
- Prospective, single-arm, multicenter trial
- Plan to enroll ~198 patients with symptoms suggestive of arrhythmia or previously diagnosed with arrhythmia
- 5 participating sites (outpatient cardiology center or arrhythmia center)

STUDY OBJECTIVE

- Demonstrate similarity of ECG waveforms between AIMIGo Synthesized 12-lead ECG and Standard 12-lead ECG
- Both will be recorded simultaneously in each subject
- Will assess ECG intervals and amplitudes

STUDY STATUS

- All 5 sites are enrolling patients
- More than 50% of patients enrolled. Enrollment is on track, expected to be completed in Q2.



Clinical Validation of
AIMIGo 12 Lead ECG Synthesis Software
for Arrhythmia Detection:
A Prospective Multicenter Pivotal Study

AI Program Update

» PROGRAM OVERVIEW

- Active AI Program underway
- Includes 5 PhDs
- Leadership with Apple, Microsoft and Google experience

» ALGORITHM DEVELOPMENT

- Initial algorithm, HeartBeam AI, developed focusing on ability to detect various arrhythmia
- Data presented at the European Heart Rhythm Association (Berlin, Germany, April 2024)
- Additional data to be presented at the Heart Rhythm Society (Boston, MA, May 2024)

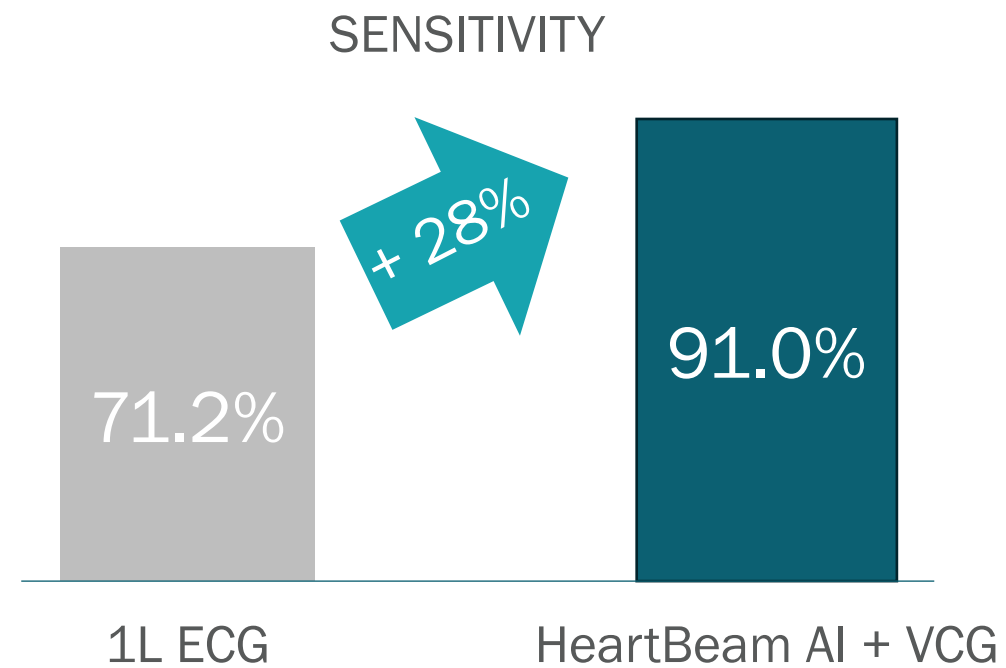
» BENEFITS OF AI

- Automated classifications
- Further enhance the user experience
- Deep learning + rich VECG data + longitudinal readings could result in unsurpassed predictive and diagnostic capabilities

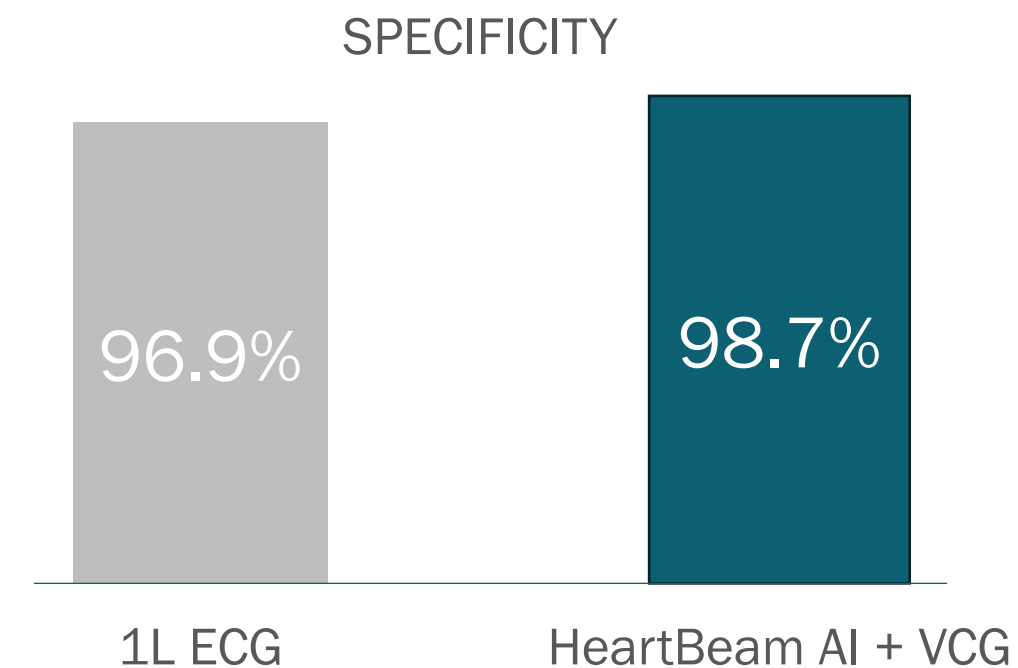
EHRA Data: HeartBeam AI Improves Arrhythmia Detection Over Single-Lead ECGs Found in Leading Smartwatches and Other Wearables

- Atrial flutter is a common arrhythmia and typically requires a 12-lead ECG to be taken in a medical setting which is challenging
- Common smartwatches / wearables only offer Single-lead ECG, limiting ability to detect broad range of arrhythmias.

IMPROVED DETECTION OF ATRIAL FLUTTER VS. SINGLE-LEAD ECG



SIMILAR RATE OF FALSE POSITIVES



Opportunity to provide benefits of a 12-lead ECG with the patient outside of a medical facility.

Q1 2024 Financial Highlights

\$ in Thousands	Quarter Ended March 31,	
	2024	2023
Operating Expenses:		
General & Administrative	\$2,356	\$2,475
Research & Development	2,428	1,681
Total Operating Expenses	4,784	4,156
Loss from Operations	(4,784)	(4,156)
Interest and Other Income	178	20
Net loss	\$(4,606)	\$(4,136)
\$ in Thousands	March 31, 2024	December 31, 2023
	Cash & Cash Equivalents	\$12,638

Closing Summary

SIGNIFICANT CLINICAL AND REGULATORY PROGRESS

- AIMIGo clearance: Completed initial phase and working interactively with FDA. Guidance unchanged: Estimate clearance in Q2
- VALID-ECG study, the basis of 12-lead Synthesis clearance: enrollment on track

AIMIGo CLEARANCE FOUNDATIONAL FOR HEARTBEAM

- Expected to be first patient-held VECG device cleared by FDA
- Robust and IP-protected foundation for future developments
 - Basis of submission on 12-lead synthesis software
 - Deep learning algorithms in development use 3D VECG signals for inputs
 - Future products including 12-lead patch and 12-lead watch

GO-TO-MARKET and FINANCIAL SOUNDNESS

- Refining Go-To-Market strategy and encouraged by early discussions with industry players
- Managing cash well. Strong cash position.

POSITIVE INTERACTIONS WITH FDA AND INTERNAL MILESTONES ON TRACK

Q&A

Company

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