The Power of a 12-Lead ECG

Always with the patient

Second Quarter 2024
Financial Results Conference Call

NASDAQ: BEAT

August 14, 2024

DISCLAIMERS

This presentation contains forward-looking statements. All statements other than statements of historical fact contained in this presentation, including statements as to the Company's future results of operations and financial position, planned products and services, business strategy and plans and objectives of management for future operations, are forward-looking statements.

These statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

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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.

Ravi Malhotra
Corporate Controller

17 years of experience in finance and accounting in Life Sciences, Technology and Manufacturing industries. During his career he has held positions including Corporate Controller, Senior Director of Finance, Associate Director of Technical Accounting and Senior Manager – Assurance.

HeartBeam's Technology is a Dramatic Breakthrough in Cardiac Monitoring

Credit-card sized, cable-free cardiac monitoring device, capable of producing a 12L ECG device, leveraging HeartBeam's core vector technology

Highest resolution 12L ECG device creates new applications for patients and physicians:

- Heart attack detection upon symptom onset
- Complex arrhythmias that existing wearables cannot detect
- Monitoring chronic conditions, prevention and screening

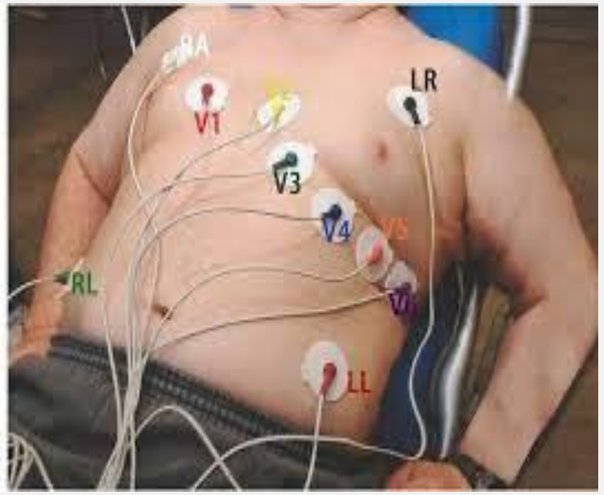
Implementation on a patch: bringing on-demand 12L technology to an established, reimbursed market

Novel watch form factor will combine a continuous monitor and a 12L

No Heart Attack Solution Practical for Home Use on the Market

IMPRACTICAL FOR HOME USE

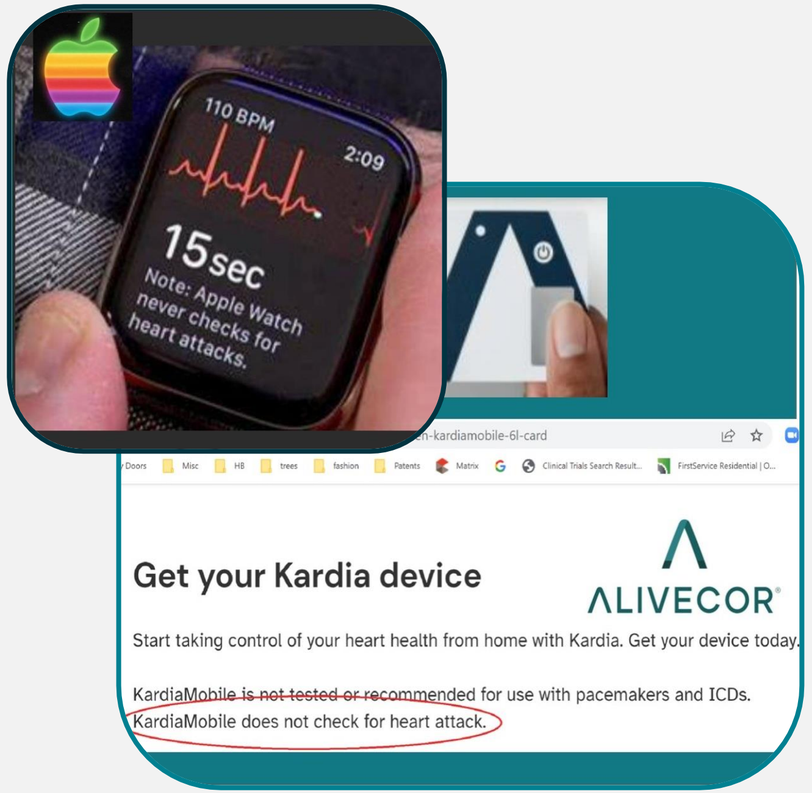
TRADITIONAL 12-LEAD ECG



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

DO NOT DETECT HEART ATTACKS

PATIENT-FRIENDLY



Patients Cannot Determine if They Are Having a Heart Attack

Ignore symptoms

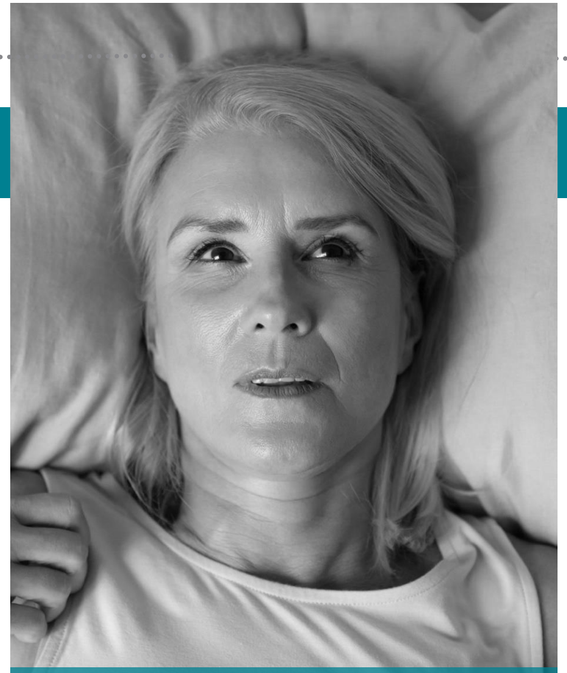
Lost lives

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

Mortality rate increases by

40%

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



Am I having a heart attack?

Go to Emergency Department

Wasted healthcare dollars

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

82% of chest pain ED visits are unnecessary

Cost to the healthcare system each year

Gibson CM et al J Am Coll Cardiol. 2019 Apr, 73 (15) 1919–1927

Video link will open in web browser

HeartBeam Market Sizes, US

SYMPTOM-DRIVEN ASSESSMENT AND DIAGNOSIS

Arrhythmia

20% of $33B OTC cardiac monitor market

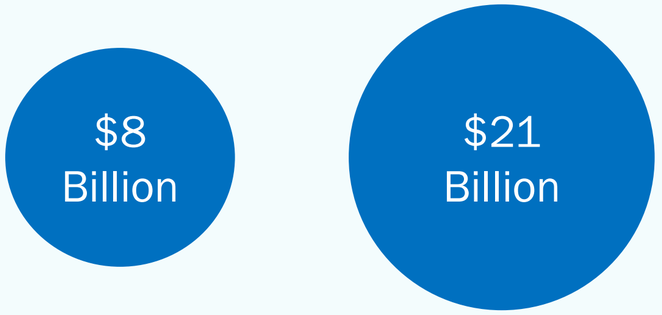
Ischemia

20 million CAD patients

12L Patch

Existing patch market + ischemia expansion

MANAGEMENT OF CHRONIC CONDITIONS



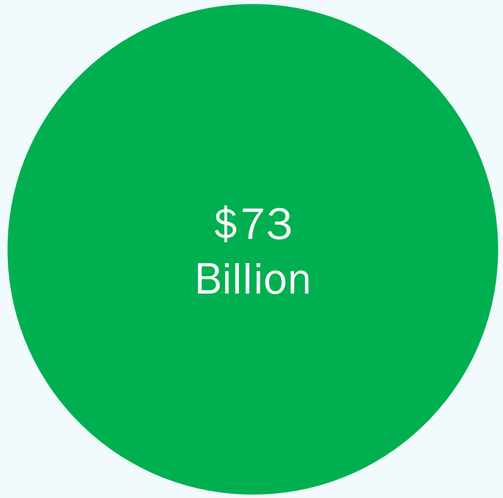
Heart Failure

6.7 million patients

Chronic Kidney Disease

35 million patients

SCREENING FOR EARLY DETECTION



Prevention/screening for cardiac conditions

121.5 million patients with cardiac conditions

AIMIGo FDA Clearance Will be a Major Milestone

FOUNDATION FOR FUTURE SUBMISSIONS AND PRODUCT PIPELINE

- Anticipated to be first patient-held device leveraging vector technology cleared by the FDA
- Basis for further HeartBeam FDA submissions
- Vector approach is excellent platform for AI algorithms
- AI algorithms on top of the rich 360-degree signals, particularly with the longitudinal readings, could result in unsurpassed predictive and diagnostic capabilities

Regulatory Status for AIMIGo Product

STATUS

- HeartBeam AIMIGo 510(k) application under active FDA review
- Cornerstone submission for HeartBeam

PRODUCT

- Clearance as cardiac monitoring device that captures 360-degree signals of the heart
- Includes credit card-sized device, patient application, physician portal and wireless communications between elements

TIMING

- Engaged in productive discussions with the FDA, addressing small number of remaining questions
- Progressing toward clearance: limited launch anticipated by year end

Regulatory Status for 12-Lead Synthesis Software

STATUS

- Preparing materials for FDA 510(k) submission
- Enrollment complete in VALID-ECG study on June 20, currently analyzing data
- Results of a study that served as the pilot for VALID-ECG pivotal to be presented at American Heart Association meeting in November

PRODUCT

- Algorithms that convert the AIMIGo 360-degree signals into a synthesized 12-lead ECG

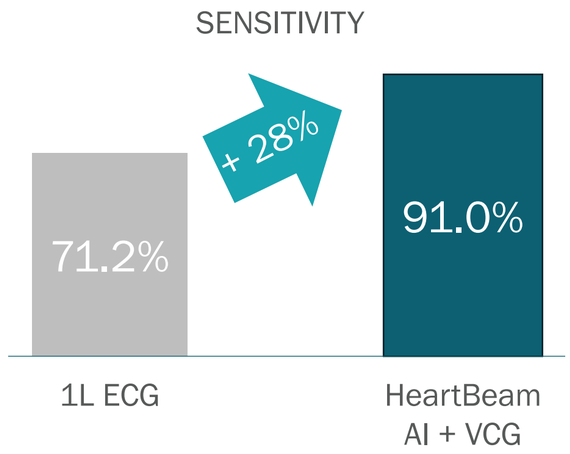
TIMING

- Anticipate filing soon after we receive clearance for the AIMIGo System

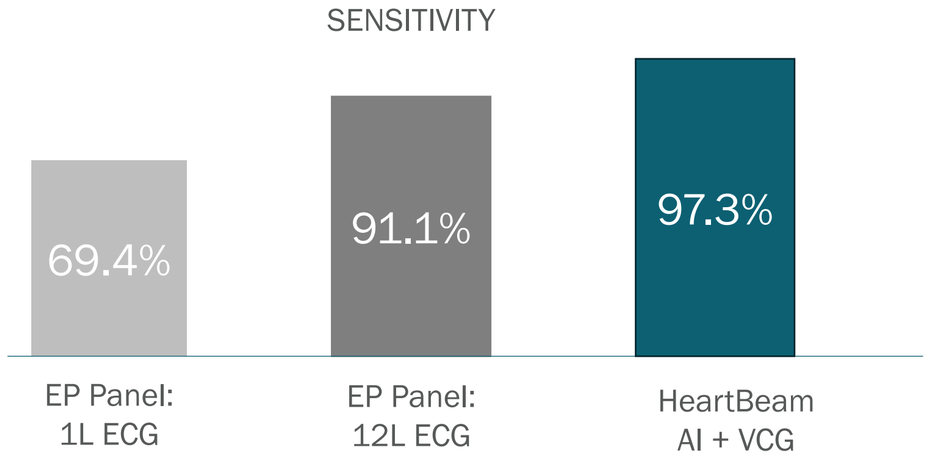
Recent Scientific Presentations Demonstrate HeartBeam AI's Ability to Improve Arrhythmia Detection

- 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



IMPROVED DETECTION OF ATRIAL FLUTTER VS. PANEL OF ELECTROPHYSIOLOGISTS



Opportunity to provide benefits of Vector 360-degree signals and 12-lead ECG with the patient outside of a medical facility

Reddy, V., Presentation at EHRA, April 2024. Lampert, J., Presentation at HRS, May 2024.

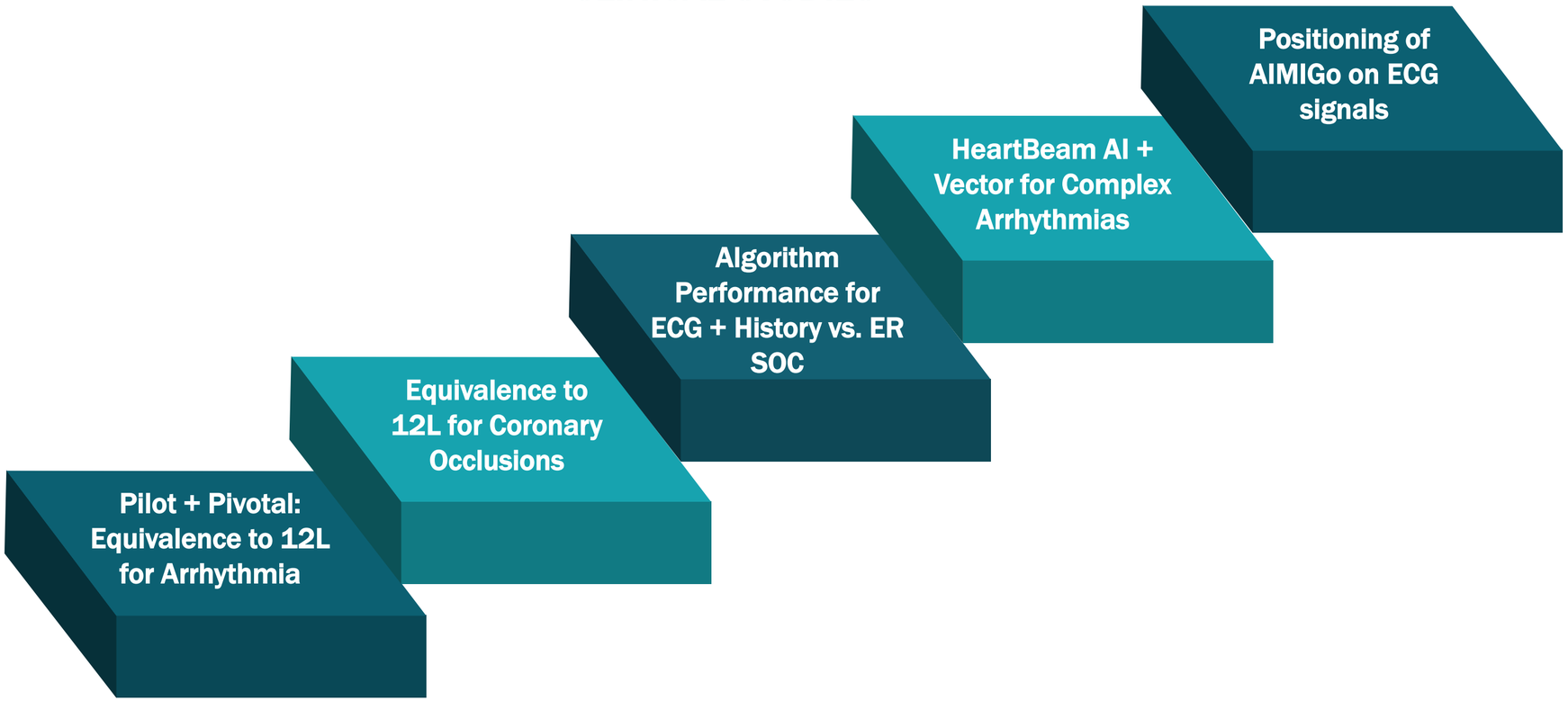
AI Program Update

HeartBeam AI algorithms for arrhythmia classification

- Close to freezing our multiple AI models
- Once cleared by FDA, will provide a comprehensive set of diagnostic suggestions
- AI classification + 12L ECG output provided to cardiologist create an offering beyond anything that is available in a patient-obtained ECG

Significant Body of Evidence on HeartBeam's Groundbreaking Technology

500
PATIENTS IN CLINICAL STUDIES



250+
REAL-WORLD PATIENTS

>7500
RECORDINGS

Q2 2024 Financial Highlights

$ in Thousands	Quarter Ended June 30,	
	2024	2023
Operating Expenses:		
General & Administrative	$2,246	$1,828
Research & Development	2,844	1,484
Total Operating Expenses	5,090	3,312
Loss from Operations	(5,090)	(3,312)
Interest and Other Income	134	158
Net loss	**$(4,956)**	**$(3,154)**

$ in Thousands	June 30, 2024	December 31, 2023
Cash & Cash Equivalents	$9,157	$16,189

Closing Summary

BREAKTHROUGH IN CARDIAC TECHNOLOGY

- Smallest, easiest-to-use and first cable-free 12-lead ECG device
- Enabled by HeartBeam's unique and IP-protected vector technology
- Potential to disrupt numerous large markets and clinical applications

SIGNIFICANT CLINICAL AND REGULATORY PROGRESS

- AIMIGo 510(k) under active review. Engaged in productive discussions with the FDA, answering small number of remaining questions.
- Progressing toward clearance; limited launch anticipated by year end
- Preparing materials for second 510(k) submission, on 12L synthesis software. Anticipate submission soon after initial AIMIGo clearance.
- Completed enrollment in VALID-ECG study

AI PROGRAM PROGRESSING

- Positive clinical data on deep learning algorithm, HeartBeam AI
- Excellent performance in detecting atrial flutter; outperformed panel of EPs reading 12L
- Working to freeze algorithms in preparation for clinical study and subsequent 510(k) submission

Q&A

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