Filed Pursuant to Rule 424(b)(2)
Registration No. 333-269717

PROSPECTUS

HeartBeam, Inc.

16,666,666

Shares of Common Stock

We are offering up to 16,666,666 shares of common stock, par value .0001 (the "Common Stock") of HeartBeam, Inc. (the "Company" or "HeartBeam") at a public offering price of $1.50 per share. This is a "best efforts" offering. This offering will terminate on May 18, 2023 unless we decide to terminate the offering prior to that date. Prior to the termination date, we may extend the offering to May 25, 2023. We will have one closing for all the securities purchased in this offering.

Public Ventures, LLC (the "placement agent") is the placement agent we have engaged to conduct this offering on a commercially reasonable "best efforts" offering basis, with no minimum amount. The placement agent may engage sub-placement agents to assist in the placement of the shares of Common Stock offered hereby. The placement agent is not purchasing or selling any shares of Common Stock offered by this prospectus, but it has agreed to use its commercially reasonable best efforts to find eligible purchasers for the shares of Common Stock offered hereby. While the offering is ongoing, investors may submit subscription agreements to the placement agent. Any funds paid by investors pursuant to the subscription agreements will be paid to and held in escrow pursuant to an escrow agreement with Delaware Trust Company, which will act as escrow agent, until the closing date of this offering. Subscriptions are irrevocable, and subscribers cannot withdraw their funds during the offering period. See "Plan of Distribution" for more details about the offering, the process of subscriptions, subscription agreements and the escrow arrangements.

Our Common Stock and warrants are currently listed on the NASDAQ, under the symbol "BEAT" and "BEATW", respectively.

Investing in our securities is highly speculative and involves a high degree of risk.**You should carefully consider the risks and uncertainties described under the heading "Risk Factors" beginning on page 15 of this prospectus before making a decision to purchase our securities.**

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share	Total
Public offering price	$ 1.50	$ 24,999,999
Placement Agent fees	$ 0.09525	$ 1,587,500
Proceeds to HeartBeam, Inc. before expenses	$ 1.40475	$ 23,412,499

For a description of the other compensation to be received by the placement agent, please see "Plan of Distribution" beginning on page 25.

The delivery of the securities offered hereby is expected to be made on or about the termination date of the offering, which will be May 18, 2023, subject to satisfaction of certain customary closing conditions. Prior to the termination date, we may extend the offering to May 25, 2023.

PUBLIC VENTURES, LLC

The date of this prospectus April 21, 2023.

ABOUT THIS PROSPECTUS

In this prospectus, unless the context suggests otherwise, references to "the Company," "HeartBeam", "we," "us," and "our" refer to HeartBeam, Inc.

This prospectus describes the specific details regarding this offering, the terms and conditions of the Shares being offered hereby and the risks of investing in the Company's Common Stock. You should read this prospectus and the additional information about the Company described in the section entitled "Where You Can Find More Information" before making your investment decision.

Neither the Company, nor any of its officers, directors, agents, representatives or placement agents, make any representation to you about the legality of an investment in the Company's Common Stock. You should not interpret the contents of this prospectus to be legal, business, investment or tax advice. You should consult with your own advisors for that type of advice and consult with them about the legal, tax, business, financial and other issues that you should consider before investing in the Company's securities.

ADDITIONAL INFORMATION

You should rely only on the information contained in this prospectus and in any accompanying prospectus supplement. No one has been authorized to provide you with different or additional information. The shares of Common Stock are not being offered in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of such documents.

TRADEMARKS AND TRADE NAMES

This prospectus includes trademarks that are protected under applicable intellectual property laws and are the Company's property. This prospectus also contains trademarks, service marks, trade names and/or copyrights of other companies, which are the property of its owners. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that the Company will not assert, to the fullest extent under applicable law, its rights or the right of the applicable licensor to these trademarks and trade names.

INDUSTRY AND MARKET DATA

Unless otherwise indicated, information contained in this prospectus concerning the Company's industry and the markets in which it operates, including market position and market opportunity, is based on information from management's estimates, as well as from industry publications and research, surveys and studies conducted by third parties. The third-party sources from which the Company has obtained information generally state that the information contained therein has been obtained from sources believed to be reliable, but the Company cannot assure you that this information is accurate or complete. The Company has not independently verified any of the data from third-party sources nor has it verified the underlying economic assumptions relied upon by those third parties. Similarly, internal company surveys, industry forecasts and market research, which the Company believes to be reliable, based upon management's knowledge of the industry, have not been verified by any independent sources. The Company's internal surveys are based on data it has collected over the past several years, which it believes to be reliable. Management estimates are derived from publicly available information, its knowledge of the industry, and assumptions based on such information and knowledge, which management believes to be reasonable and appropriate. However, assumptions and estimates of the Company's future performance, and the future performance of its industry, are subject to numerous known and unknown risks and uncertainties, including those described under the heading "Risk Factors" in this prospectus and those described elsewhere in this prospectus, and the other documents the Company files with the Securities and Exchange Commission, or SEC, from time to time. These and other important factors could result in its estimates and assumptions being materially different from future results. You should read the information contained in this prospectus completely and with the understanding that future results may be materially different and worse from what the Company expects. See the information included under the heading "Forward-Looking Statements."

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. These forward-looking statements contain information about our expectations, beliefs or intentions regarding our product development and commercialization efforts, business, financial condition, results of operations, strategies or prospects, and other similar matters. These forward-looking statements are based on management's current expectations and assumptions about future events, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict. These statements may be identified by words such as "expects," "plans," "projects," "will," "may," "anticipates," "believes," "should," "intends," "estimates," and other words of similar meaning.

These statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under the section titled "Risk Factors" and elsewhere in this prospectus, in any related prospectus supplement and in any related free writing prospectus.

Any forward-looking statement in this prospectus, in any related prospectus supplement and in any related free writing prospectus reflects our current view with respect to future events and is subject to these and other risks, uncertainties and assumptions relating to our business, results of operations, industry and future growth. Given these uncertainties, you should not place undue reliance on these forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus, any related prospectus supplement and any related free writing prospectus and the documents that we reference herein and therein and have filed as exhibits hereto and thereto completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This prospectus, any related prospectus supplement and any related free writing prospectus also contain or may contain estimates, projections and other information concerning our industry, our business and the markets for our products, including data regarding the estimated size of those markets and their projected growth rates. Information that is based on estimates, forecasts, projections or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained these industry, business, market and other data from reports, research surveys, studies and similar data prepared by third parties, industry and general publications, government data and similar sources. In some cases, we do not expressly refer to the sources from which these data are derived.

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PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus or incorporated by reference in this prospectus. This summary may not contain all of the information that may be important to you. You should read this entire prospectus carefully, including the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Company's historical financial statements and related notes included elsewhere in this prospectus. In this prospectus, unless otherwise noted, the terms "the Company," "HeartBeam" "we," "us," and "our" refer to HeartBeam, Inc.

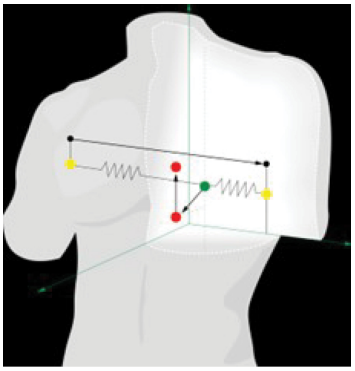
Overview

Corporate History and Information

HeartBeam was incorporated as a C corporation under the laws of the State of Delaware on June 11, 2015. We do not own any subsidiaries.

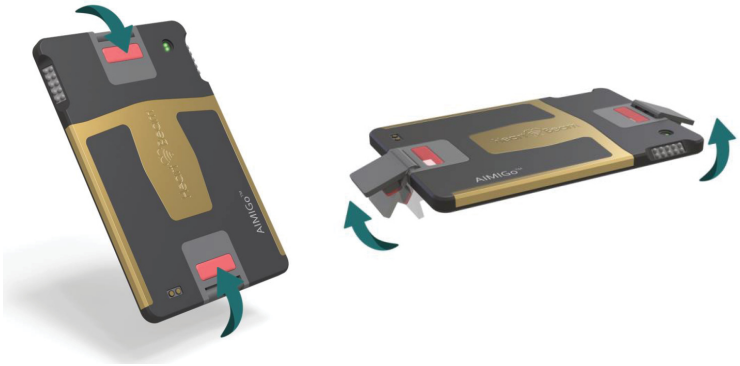
Company Overview

We are a medical technology company primarily focusing on developing and commercializing higher resolution ambulatory Electrocardiogram ("ECG") solutions that enable the detection and monitoring of cardiac disease both inside and outside a healthcare facility setting. Our ability to develop higher resolution ECG solutions is achieved through the development of our proprietary and patented Vector Electrocardiography ("VECG") technology platform. Our VECG is capable of developing three-dimensional ("3D") vector images of cardiac electrical activity by displaying the spatial locations of ECG waveforms that demonstrated in early studies to deliver equal or superior diagnostic capability than traditional hospital-based ECG systems.



Our aim is to deliver innovative, ambulatory cardiac health monitoring technologies that can be used for patients anywhere, especially where critical cardiac care decisions need to be made on a more timely basis. Our products (hereinafter "Product" or "Products") require Food and Drug Administration ("FDA") clearance and have not been cleared for marketing.

We believe our Products and services will benefit many stakeholders, including patients, healthcare providers, and healthcare payors. We are developing our telehealth Product ("HeartBeam AIMIGo™"), to address the rapidly growing telehealth market. HeartBeam AIMIGo is comprised of a credit card sized electrocardiogram device and powerful cloud-based diagnostic expert software systems. We intend to show that our easy to use device (without external electrodes) provides signals equivalent to a standard 12L device, and therefore will have a number of applications for ambulatory use. We believe that we are uniquely positioned to play a central role in cardiac remote monitoring including high-risk coronary artery disease patients, because the initial studies have shown that our ischemia detection system may be more accurate than existing ambulatory monitoring solutions. Coronary artery disease ("CAD") patients are at increased risk for a heart attack or Myocardial Infarction ("MI").



HeartBeam AIMIGo device in planar and ready position

We are also applying our software platform to create a tool for detecting heart attacks in the Emergency Department ("ED") environment using standard 12-lead ECG recordings. The software tool, ("HeartBeam AIMI™") is designed to enable emergency physicians diagnose heart attacks more accurately and quickly than currently available tools. Market clearance of this Product is planned to precede HeartBeam AIMIGo.

To date, we have developed working prototypes for both HeartBeam AIMIGo and HeartBeam AIMI. HeartBeam AIMI has been submitted for FDA 510(k) clearance and we have received questions from the FDA within the statutory 30-day review deadline, discussed the questions via teleconference with the FDA review team and provided written responses addressing the questions to the primary reviewer.

The custom software and hardware of our Products, we believe, are classified as Class II medical devices by the FDA, running on an FDA approved Class I registered software platform. Class II medical devices are those for which general controls alone are insufficient to provide reasonable assurance of safety and effectiveness and there is sufficient information to establish special controls. Special controls can include performance standards, post-market surveillance, patient histories and FDA guidance documents. Premarket review and clearance by the FDA for these devices is generally accomplished through the 510(k) or 510(k) de-novo premarket notification process.

HeartBeam has nine issued U.S. patents (U.S. 10,433,744, U.S. 10,117,592, U.S. 11,071,490, U.S. 11,419,538, U.S. 11,445,963, U.S. 11,529,085, U.S. 10,980,433, U.S. 11,412,972 and U.S. 11,234,658), and six pending U.S. applications. Four of the pending applications have been published, the remaining two pending cases are unpublished. Outside of the U.S., HeartBeam has four issued patents in Germany, France, Netherlands and United Kingdom and seven pending applications in Canada, China, the European Union, Japan and Australia. HeartBeam has three pending PCT applications. The issued patents are predicted to expire between April 11, 2036 and April 21, 2042.

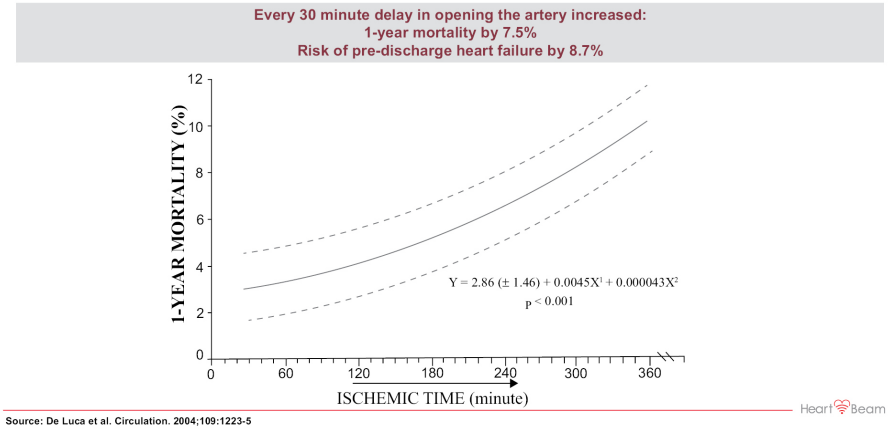
Market Overview

Chronic diseases are the number one burden on the healthcare system, driving up costs each year, and cardiovascular illnesses are one of the top contributors. Regulators, payors, and providers are focused on shifting the diagnosis and management of these conditions to drive better outcomes at lower cost. Connected medical solutions are expanding rapidly and are projected to reach $155 billion by 2026, a compound annual growth rate ("CAGR") of 17%. These solutions are socio-technical models for healthcare management and delivery using technology to provide healthcare services remotely and aim to maximize healthcare resources and provide increased, flexible capabilities for patients to engage with clinicians and better self-manage their care, using readily available consumer-facing technologies to deliver patient care outside the hospital or doctor's office.

The market for Remote Patient Monitoring ("RPM") is projected to reach $31.3 billion by 2023. In 2019, 1,800 hospitals in the US were using mobile applications to improve risk management and quality of care. The number in 2020 was likely larger as the onset of the COVID-19 pandemic greatly accelerated use and acceptance of telehealth by both patients and healthcare providers.

Cardiovascular disease is the number one cost to the healthcare system and is estimated to be responsible for 1 in every 6 healthcare dollars spent in the US. As cardiovascular disease is the leading cause of death worldwide, early detection, diagnosis, and management of chronic cardiac conditions are necessary to relieve the increasing burden on the healthcare infrastructure. Diagnostic tests such as ECGs are used to detect, diagnose, and track numerous cardiovascular conditions. With advances in mobile communications, diagnostic monitoring of cardiac conditions is increasingly occurring outside the hospital.

Consequences of Delayed Intervention in MI Patients



Source: De Luca et al. Circulation. 2004;109:1223-5

We intend to show that our easy to use device (without external electrodes) provides signals equivalent to a standard 12L device, and therefore will have a number of applications for ambulatory use. Our initial telemedicine technology Product HeartBeam AIMIGo will first address the heart attack detection market as well as the market to monitor CAD patients who are typically at high risk for a heart attack. Additionally, we expect to cater to patients across different risk profiles interested in our cardiac monitoring solutions for different heart conditions. Currently there are no products on the market that are user friendly, easy to carry, and always with the patient to provide physicians and patients with timely and highly accurate information about all heart conditions that could be detected with a 12L ECG, including potential ischemic events. A tool that is always with the patient, that decreases time to intervention, and that decreases the number of unnecessary ED visits by chest pain patients would have a significant effect on saving lives and healthcare dollars. We believe our technology will address this problem and will provide a convenient, cost-effective, integrated telehealth solution, including software and hardware for physicians and their patients. There are approximately 20 million people in the US who are considered at high risk for a heart attack, including 8 million who already have had prior intervention for MI's and are therefore considered to be at extreme risk.

In the US, mobile cardiac tests are primarily conducted through outsourced Independent Diagnostic Testing Facilities ("IDTFs") or as part of an RPM/telehealth system. Reimbursement rates vary depending on the use case and generally are based on the value a technology offers to patients and healthcare providers. Actual reimbursed pricing is set by the Centers for Medicare & Medicaid Services ("CMS"). Reimbursement rates for private insurers typically provide for similar or higher reimbursement rates when compared to those set by the government for Medicare and Medicaid.

In the ED environment, early and accurate diagnosis of a chest pain patient who is potentially having a heart attack is of immense importance. Guidelines state that every chest pain patient in an ED must receive an ECG within 10 minutes of presentation. The accuracy of these initial ECGs, interpreted by physicians, is only approximately 75%. The need

for increased ECG accuracy in detecting a heart attack in the ED is well defined, and an improved solution could result in saved lives and healthcare dollars. A 510(k) for our ED Product, HeartBeam AIMI, was submitted for review on August 15, 2022 to the FDA. We believe this Product will offer an increase in the accuracy of heart attack detection in EDs. There are approximately 5,000 Emergency Departments in the US.

Products and Technology

The foundation of our novel technology is the concept of VECG, a technology that has long been seen as superior to ECGs in detecting MIs but is no longer used clinically because of the difficulty experienced by physicians interpreting the output. We solved the crucial problem of recording three orthogonal (x, y and z) projections of the heart vector with a device that is sized like a credit card. The thickness of our credit card sized ECG signal collection device is about 1/8 inch (4 mm), and it weighs about 1 ounce (28 grams). The core technology consists of a series of patented inventions and associated algorithms. In addition to using VECG to get a more complete 3D characterization of cardiac activity, we use the concept of a baseline. Our MI marker is a differential marker that measures the change in cardiac parameters between an asymptomatic (baseline) recording and the symptomatic recording. It is personalized for every patient as every patient has a unique baseline. Our increase in diagnostic performance in detecting MIs, when compared to a panel of cardiologists, is attributed to a richer cardiac information set offered by VECG and the fact that our MI marker compares the baseline and symptomatic recordings and does that in the 3D space of VECG.

This novel technology has resulted in two key Products to date: a telehealth Product for cardiovascular patients (HeartBeam AIMIGo) and a powerful cloud-based ECG interpretation based on a quantitative comparison of the patients 3D VECG baseline and symptomatic recordings for EDs (HeartBeam AIMI). Our telehealth ECG collection device is the size of a credit card and records cardiac signals with integrated electrodes rather than wires or self-adhesive electrodes. Unlike a standard 12-lead ECG machine that records signals in empirically determined locations on a human body, our approach is focused on recording three projections of the heart vector. The successful recording of the projections of the heart vector enables the synthesis, via a patented method, of a 12-lead signal set and internal algorithmic diagnostic work in the space of 3D heart vectors.

There are obvious ease of use advantages when comparing our handheld device that fits in a wallet and can be instantly self-applied versus the current 12-lead ECG machine that requires a trained professional to apply. In addition, there are diagnostic performance advantages, including, based on our initial study, increased accuracy in diagnosing MIs. The system is used by patients at home or elsewhere, and collected data is sent to a physician to assess whether the patient's chest pain is truly the result of an MI.

Our telehealth HeartBeam AIMIGo system will be a prescription-only mobile health system intended for individuals with known or suspected heart disease, especially CAD. It helps guide physicians in choosing the best course of action for their patients who experience chest pain outside of a medical facility. HeartBeam AIMIGo will bring a medical grade ECG to patients and will enable them to receive a plan of action from a physician in a timely manner. At the time of onboarding and at regularly scheduled time intervals, patients record a baseline 30 second cardiac reading using our device. When a patient experiences symptoms, such as irregular heartbeats or chest pain, the patient can simply open the smartphone application and press the credit card sized device against the chest to collect signals that can be converted to a synthesized 12-lead ECG. This synthesized 12-lead ECG is sent to the physician overlayed with the patient's synthesized baseline ECG recording. In addition, the patient provides input on their symptoms that is sent, along with the ECG data, to the cloud for interpretation by a physician. A cloud-based algorithm processes the signals and displays the symptom description and patient history to a physician to analyze and prescribe an action plan. From start to finish, the process takes just a few minutes.

The telehealth HeartBeam AIMIGo system consists of a number of capabilities that will be productized in an incremental fashion. These are:

1. A credit card sized cardiac electrical signal collection device. The device captures cardiac signals that represent x, y and z projections of the heart vector and transmits them via Bluetooth connection to a smartphone. It is always with the patient as it easily fits in a wallet. It is easy to use as all that is required of the patient is that the device be pressed against the chest.

2. A smartphone application that receives the cardiac signals from the HeartBeam signal collection device. The application has several functions: guiding the patient through the signal collection, asking about symptoms, displaying the status of the data collection including real time signal quality check, and notifying

the patient of the plan of action as determined by a physician. In addition, the application will contain HIPAA-compliant video conferencing or text capabilities for the healthcare provider to communicate directly with the patient.

3. A cloud-based software system that serves four basic functions: (1) Performing a final check of the ECG signal quality, (2) Synthesizing a 12-lead ECG from the measured (recorded) 3 vector leads, (3) Creating a diagnostic suggestion based on 3D VECG interpretation, risk factors and symptoms and (4) Preparing a summary report for the physician. These software functions will be introduced to the HeartBeam AIMIGo product in a sequential manner. To facilitate a more accurate physician interpretation of the data, the software overlays the patient's synthesized baseline 12 lead ECG waveform on the synthesized 12 lead ECG waveform from the current event. To ensure high signal quality, the system checks for noise levels in the recorded signals. Those signals that can be effectively filtered are accepted and those that have a noise level above an empirically established threshold are rejected. If a recorded signal is rejected, the user is asked to repeat the recording.

4. A web-based physician portal capable of displaying the following relevant information for the physician to analyze: diagnostic suggestion, patient history, symptoms, baseline and current, synthesized 12-lead ECG, and recorded 3 vector leads. Our physician portal assists physicians with their diagnostic interpretation by providing both the baseline 12-lead synthesized ECG and the 12-lead synthesized ECG that is under evaluation.

5. A dedicated ECG monitoring and reading team of medical professionals to offer 24/7/365 services in order to assist symptomatic patients when making a decision of whether they should go to the Emergency Department. This capability will be developed in-house or outsourced through a contracted third-party organization.

The market release of our telehealth Product will be in multiple versions.

The initial Product will have a limited feature set and introduce a 3-lead 3D VECG credit card-sized device, the HeartBeam AIMIGo 3L, that records the X,Y,Z cardiac activity and displays the signals for clinician review, providing the regulatory foundation for subsequent products in our product portfolio. The 510(k) submission to the FDA is planned for early 2023.

Following this we will offer to the physician a pair of baseline and symptomatic 12-lead ECGs, both synthesized from 3-lead 3D VECG signals recorded by the HeartBeam AIMIGo device, and a symptoms report. It leverages recently issued patents for a personalized system for synthesizing 12-lead ECG waveforms. The 510(k) submission to the FDA is planned for late 2023.

Future versions may include our proprietary ECG interpretation MI marker and our overall MI diagnostic suggestion in addition to all features of the earlier Products and may as well offer an automated atrial fibrillation detection algorithm.

The same core technology built into the telehealth Product HeartBeam AIMIGo is used in the ED Product HeartBeam AIMI. In this application, the increased accuracy of detecting MIs by the ECG is of utmost importance. An ECG is the first diagnostic test a chest pain patient receives in the ED and it has a major impact on the patient's subsequent clinical path. The ED Product has no hardware and introduces minimal change to the standard of care chest pain diagnostic path. It uses a baseline standard 12-lead ECG from the patient's Electronic Medical Record ("EMR") and the standard 12-lead ECG that is being evaluated. It converts the two ECGs to a VECG representation and utilizes our proprietary 3D VECG differential marker to generate an ECG interpretation suggestion to be used by the ED physician. The importance of increased accuracy of the first ECG interpretation for a chest pain patient presenting to an ED is significant, potentially leading to faster intervention or avoiding unnecessary activation of the cardiac catheterization lab.

FDA Regulatory Path

We have defined the FDA 510(k) clearance paths for both Products and have contracted with regulatory consultants to help us clear both products with the FDA.

The initial Product will have a limited feature set and introduce a 3-lead 3D VECG credit card-sized device, the HeartBeam AIMIGo 3L, that records the X, Y, Z cardiac activity and displays the signals for clinician review, providing the regulatory foundation for subsequent products in our product portfolio.

The 510(k) submission to the FDA is planned for early Q2 2023. We are planning a subsequent 510(k) submission, in Q4 2023, for the Product, which will include the ability to generate synthesized 12L ECG recordings. The submission is planned to contain results of a validation study comparing our synthesized 12-lead ECG recordings to standard 12-lead ECG recordings.

HeartBeam's ED software product, HeartBeam AIMI, is hosted on LIVMOR's Class I registered software platform and a predicate device for the cloud-based diagnostic engine for the ED product was identified. The predicate device is widely used as part of a software package produced by a leading ECG machine manufacturer. The predicate device software makes a diagnostic suggestion regarding a potential MI diagnosis. HeartBeam AIMI will also make a diagnostic suggestion to the ED physician. In the HIDES pilot study, we showed improved performance in detecting ischemia over a panel of cardiologists.

For the FDA 510(k) regulatory submission, a retrospective study was performed comparing patients' baseline and asymptomatic ECG recordings and providing a diagnostic suggestion from the HeartBeam AIMI software. The diagnostic suggestion of the predicate device software, that was already recorded in the patient's EMR, was compared to the diagnostic suggestion of our Product. The 510(k) regulatory submission for market clearance was filed with the FDA on August 15, 2022.

Market Opportunity

ECGs are key diagnostic tests utilized in the diagnosis and monitoring of cardiovascular disease, the number one cause of death worldwide. In the US in 2016, there were approximately 120 million adults living with cardiovascular disease and approximately 20 million adults with diagnosed coronary artery disease. The prevalence of these cardiac conditions and thus the market size is increasing, due to an aging population and lifestyle choices.

Every 40 seconds someone in the US has a heart attack, or MI. Unfortunately, there is no way for patients to tell whether the symptoms they are experiencing are due to an MI, or some other more benign condition such as indigestion. As a result, patients often ignore symptoms and delay seeking care, which leads to worse outcomes and increased mortality. On the other hand, many patients who go to the ED with chest pain are not experiencing an MI. Chest pain is the second most common reason for an ED visit in patients over 45, yet fewer than 20% of chest pain ED visits result in a diagnosis of a life-threatening condition. These unnecessary ED visits lead to well over $10 billion in unnecessary healthcare expenditures.

Most ECGs are conducted in a healthcare facility setting using a 12-lead ECG machine, the gold standard. ECGs taken outside of healthcare facilities are expected to grow more quickly than in-hospital ECGs. Monitoring cardiac patients outside of a hospital is a fast-growing trend, as it is less expensive and provides a better patient experience. However, while ambulatory cardiac monitoring devices are often much easier for patients to use, they have fewer leads than the gold standard and therefore cannot offer as comprehensive a picture of cardiac health.

While a standard 12-lead ECG readout is of great medical value, it is simply impractical to have a standard 12-lead machine next to patients when they experience symptoms outside the clinical setting, since recording the event requires attaching multiple electrodes to the patient's body with professional assistance. While existing technologies use predominantly single lead ECG devices to monitor arrhythmias, these technologies do not provide information to the physician on the presence of life-threatening conditions of acute coronary syndrome ("ACS") or heart attacks.

We believe our telehealth technology addresses these market needs and has several key attributes that make it a good fit for these patients. Our telehealth Product is generally used when symptoms occur and offers the potential for lifelong patient usage. The device is practically always near the patient and ready to be used for recording a cardiac event. It enables very nearly real-time cardiac data transmission during a telemedicine visit. It offers a recorded 3 vector lead

set of signals and a synthesized 12-lead ECG set of signals. We believe physicians will typically prescribe our solution to chronic cardiovascular patients for long term monitoring, thereby enabling prolonged data collection and delivering a more complete picture for diagnosis. This will also enable the use of artificial intelligence on our future database that will have a unique set of longitudinal synthesized 12-lead ECGs for patients.

As our VECG platform demonstrates 12-Lead equivalence and clinical & cost-effectiveness advantages, coupled with a patent protected technology, we believe this might open multiple licensing and/or partnering opportunities with players in the ECG, cardiac monitoring patch and smart watch verticals.

Market Strategy

Our goal is to establish our products as key solutions for cardiology practices and hospital EDs. Our efforts to enter the market involve establishing clinical evidence and demonstrating the cost-effectiveness of adopting our products. For both the telehealth (HeartBeam AIMIGo) and the ED Products (HeartBeam AIMI), the initial geographic market is the United States.

We believe that both the telehealth and ED Products will be subject to the US FDA's 510(k) review process. A 510(k) for our HeartBeam AIMI was submitted to the FDA on August 15, 2022, for review and we are in the process of preparing a 510(k) submission for HeartBeam AIMIGo.

For HeartBeam AIMIGo, the primary customers are cardiology practices and the cardiology departments of hospitals. Healthcare insurers are another important customer, as they will potentially benefit from the reduced costs to the healthcare system. We are working to develop new clinical studies and publish results of completed clinical studies and plan to demonstrate real world cost-effectiveness of the use of the solution.

Our initial targets for HeartBeam AIMIGo are market segments that see value in an easy-to-use device that can generate synthesized 12L ECG recordings. These will be segments in which payment for the device will be outside of the established reimbursement system. These target segments include concierge practices, hospital-at-home segment and clinical trials. As we establish clinical data on the clinical and cost-effectiveness of HeartBeam AIMIGo, we will target at-risk cardiology practices, including high risk patients being discharged from hospitals after experiencing an MI.

Our long-term strategy is to generate sufficient evidence of clinical efficacy and cost-effectiveness to generate reimbursement coverage and payment specifically for the HeartBeam AIMIGo solution. We expect to be able to demonstrate significant clinical benefits for patients and savings to the healthcare system, justifying appropriate reimbursement levels.

For the telehealth Product, our primary marketing strategy will focus on the medical community with continued validation of clinical efficacy and cost-effectiveness and the establishment of reference sites. We will also create educational materials and provide other support to help educate our customers' patients.

We will explore other business models. For example, hospitals face CMS penalties if their 30-day readmission rates for patients who are discharged after an MI exceed certain thresholds. These CMS penalties are levied on all hospital CMS payments, so the impact can be significant. Our telehealth Product can be a tool to help hospitals manage these patients after discharge. We will explore models in which hospitals pay for the device and for the initial 30 days of service. In addition, we will explore models for value-based care, in which the use of the telehealth Product reduces overall costs.

We are currently speaking with hospitals in large healthcare systems to educate them about our first two products. These are sophisticated customers, and we plan to use technical presentations, peer reviewed clinical data, and demonstration projects to achieve penetration of this market. We plan to continue to expand our medical advisory board, conduct clinical trials with leading cardiologists to increase the body of evidence, and establish reference sites among these customers.

For the ED Product, the primary customers are acute care facilities. As with the telehealth Product, we plan to publish clinical studies on the effectiveness of the Product. In addition, we plan to develop financial models demonstrating the cost-effectiveness of the approach and establish reference sites who are using the Product. We do not expect to obtain specific reimbursement for the ED Product but intend to demonstrate that the purchase of the software would result in clinical and economic benefits and potentially reduced malpractice legal exposure for ED provider institutions.

We expect our value proposition will be progressively increased as we gradually add additional functionality to our monitoring solutions and drive down the cost of continuous monitoring by increasing scale and automation. We expect our HeartBeam AIMIGo device and AIMI software to gradually incorporate internally developed algorithms with the capabilities of detecting heart conditions that can be exposed via a standard 12-L ECG device. Additionally, as we collect rich longitudinal data sets from our patients, we expect to train AI and ML algorithms that could potentially have predictive capabilities regarding different heart conditions. Over time and with scale we expect our costs to decrease and provide more and better services to our patients by improving our capabilities.

We plan to establish a direct sales network with relationships and experience selling to our target markets.

Clinical Data

HeartBeam has performed three initial clinical studies to assess performance of our technologies.

In the first study (HeartBeam Ischemia Detection Study — HIDES), we simultaneously collected traditional 12-lead ECG and vector X,Y and Z signals on patients whose coronary arteries were occluded during a Percutaneous Coronary Intervention (PCI). Our VECG-based signal interpretation system had significantly (21%) higher accuracy in detecting ischemia.

In a second study (B Score), the HeartBeam diagnostic engine, using ECG, symptoms, and history, matched the diagnostic performance of expert cardiologists in detecting the presence of MIs in patients presenting to an ED with chest pain. This result indicates that the quality of the diagnostic advice produced by our expert system will be extremely valuable to the physician who is assessing the condition of a patient in a telehealth environment.

The third study, ISPEC, which assessed the false positive rate for non-symptomatic patients, is relevant in a telehealth situation. It is important that the system have a low false positive rate when patients are conducting baseline recordings, which are required on at least a monthly basis. The study yielded no false positives.

All three studies are being prepared for peer-reviewed publication.

Intellectual Property

We believe our intellectual property ("IP") protects our innovations, and our goal is to become a leader in the ambulatory VECG sector. For some aspects of our proprietary technology, we rely on trade secret protection. It is our view that the combination of these two methods of IP protection maximizes our chances for success.

HeartBeam has nine issued U.S. patents (U.S. 10,433,744, U.S. 10,117,592, U.S. 11,071,490, U.S. 11,419,538, U.S. 11,445,963, U.S. 11,529,085, U.S. 10,980,433, U.S. 11,412,972 and U.S. 11,234,658), and six pending U.S applications. Four of the pending applications have been published, the remaining two pending cases are unpublished. Outside of the U.S., HeartBeam has four issued patents in Germany, France, Netherlands, and United Kingdom and seven pending applications in Canada, China, the European Union ("EU"), Japan and Australia. HeartBeam has three pending PCT applications. The issued patents are predicted to expire between April 11, 2036 and April 21, 2042.

Our issued and pending U.S. patent applications cover compact VECG systems for remote detection and/or diagnosis of acute myocardial infarction ("AMI"). Outside of the U.S., the pending EU, Australian ("AU"), Japanese ("JP") and Chinese ("CN") patent applications correspond to the pending and issued US cases. The pending PCT applications cover methods and apparatuses for automatic cardiac diagnosis as well as compact systems including retractable electrodes.

Research and Development

The primary objective of our research and development program is to provide innovative, user-friendly, ambulatory VECG solutions with high medical value. To date, we have been highly successful in developing our initial products. The emphasis has been on developing a user-friendly solution that is always with the patient and assists physicians in diagnosing heart attacks in chest pain patients.

Our Research team is largely based in Belgrade, Serbia as well as in California, USA. We have assembled a highly capable Belgrade team currently consisting of seven PhD level contributors who are credited with developing our key inventions and patents. The diverse group includes:

- Two nuclear physicists.
- Two Biomedical Engineers experienced in developed digital health applications.
- Two highly experienced Healthcare IT development professionals.
- Two Electrical Engineers (M.S.E.E) with strong signal processing and ECG analysis algorithm expertise from the medical device industry.
- An Electrical Engineer (M.S.E.E) with exceptional implantable medical device development and power optimization expertise.
- A Software Engineer, (PhD Computer Science), with deep expertise in developing mobile applications for medical devices.

Future research and development efforts will focus on the application of signal processing and artificial intelligence to address a range of cardiac conditions.

During 2022 we also added 3 development engineers led by our recently hired Chief Technology Officer Kenneth Persen. This is an experienced development team that worked together previously and was successful in delivering FDA cleared products.

Future Products

Our core technology — the heart vector approach adopted and invented by our research team — is a platform technology that can provide diagnostic solutions to a variety of cardiovascular patients. Our plans call for expanding solutions that diagnose all major cardiac conditions that are diagnosed by ECGs.

Our future plans include the development of a VECG-based, synthesized 12-lead capable patch ECG monitor that will provide advantages over existing single-lead ECG patch products such as the Zio-XT from iRhythm Technologies, Inc. Our approach will offer a synthesized 12-lead ECG with a patch that is very similar, in dimensions and look and feel, to the currently available single lead ECG patches. We believe providing standard of care 12-lead ECG capabilities will have significant diagnostic advantages over a single lead patch.

We also plan to integrate a synthesized 12-lead ECG smartwatch-based monitor intended for detection of heart attacks and complex cardiac arrhythmias. This invention eliminates the need for a dedicated ECG device while offering a synthesized 12-lead ECG capability enabling heart attack and complex arrhythmia detection.

While our initial telehealth Product is powered by a software expert system that serves as a diagnostic aid to a physician, we will develop an AI based diagnostic system that will supplement our diagnostic expert system.

We are committed to continue advancing the full potential inherent in our synthesized 12-lead 3D VECG technology as demonstrated in recently issued and allowed patents with potentially disruptive market impacts.

Summary of Risk Factors

Our business and our ability to execute our business strategy are subject to a number of risks of which you should be aware of before you decide to buy our Common Stock. In particular, you should carefully consider following risks, which are discussed more fully in “Risk Factors” beginning on page 15 of this prospectus:

- We have a limited operating history upon which investors can evaluate our future prospects.
- We have expressed substantial doubt about our ability to continue as a going concern.
- We have no revenues and we cannot predict when we will achieve first revenues and be sustained.
- We may never complete the development and commercialization of products that we are currently developing and future development of new generations of any of our other proposed products.

- We may not meet our product development and commercialization milestones.
- Our business is dependent upon physicians utilizing and prescribing our solution; if we fail to engage physicians to utilize our solution, our revenues may never materialize or may not meet our projections.
- We are subject to extensive governmental regulations relating to the manufacturing, labeling and marketing of our products.
- If we are not able to both obtain and maintain adequate levels of third-party reimbursement for our products, it would have a material adverse effect on our business.
- Changes in reimbursement practices of third-party payers could affect the demand for our products and services and our revenue levels.
- We may experience difficulty in obtaining reimbursement for our services from commercial payors that consider our technology to be experimental and investigational, which would adversely affect our revenue and operating results.
- Reimbursement by Medicare is highly regulated and subject to change; our failure to comply with applicable regulations, could decrease our expected revenue and may subject us to penalties or have an adverse impact on our business.
- Consolidation of commercial payors could result in payors eliminating coverage of mobile cardiac monitoring solutions or reducing reimbursement rates.
- Product defects could adversely affect the results of our operations.
- Interruptions or delays in telecommunications systems or in the data services provided to us by cellular communication providers or the loss of our wireless or data services could impair the delivery of our cardiac monitoring services.
- Interruptions in computing and data management cloud systems could impair the delivery of our cardiac monitoring services.
- We could be exposed to significant liability claims if we are unable to obtain insurance at acceptable costs and adequate levels or otherwise protect ourselves against potential product liability claims.
- We require additional capital to support our present business plan and our anticipated business growth, and such capital may not be available on acceptable terms, or at all, which would adversely affect our ability to operate.
- We cannot predict our future capital needs and we may not be able to secure additional financing.
- The results of our research and development efforts are uncertain and there can be no assurance of the commercial success of our products.
- If we fail to retain certain of our key personnel and attract and retain additional qualified personnel, we might not be able to pursue our growth strategy.
- We will not be profitable unless we can demonstrate that our products can be manufactured at low prices.
- Our dependence on a limited number of suppliers may prevent us from delivering our devices on a timely basis.
- Natural disasters and other events beyond our control could materially adversely affect us.
- COVID-19 pandemic may negatively affect our operations.
- The industry in which we operate is highly competitive and subject to rapid technological change. If our competitors are better able to develop and market products that are safer, more effective, less costly, easier to use, or are otherwise more attractive, we may be unable to compete effectively with other companies.
- We face competition from other medical device companies that focus on similar markets.

- Unsuccessful clinical trials or procedures relating to products under development could have a material adverse effect on our prospects.
- Intellectual property litigation and infringement claims could cause us to incur significant expenses or prevent us from selling certain of our products.
- If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.
- If we are unable to protect our proprietary rights, or if we infringe on the proprietary rights of others, our competitiveness and business prospects may be materially damaged.
- Dependence on our proprietary rights and failing to protect such rights or to be successful in litigation related to such rights may result in our payment of significant monetary damages or impact offerings in our product portfolios.
- Enforcement of federal and state laws regarding privacy and security of patient information may adversely affect our business, financial condition or operations.
- We may become subject, directly or indirectly, to federal and state health care fraud and abuse laws and regulations and if we are unable to fully comply with such laws, the Company could face substantial penalties.
- We may be subject to federal and state false claims laws which impose substantial penalties.
- The price of our Common Stock may be subject to wide fluctuations.
- The offering price of our Common Stock may not be indicative of the value of our assets or the price at which shares can be resold. The offering price of our Common Stock may not be an indication of our actual value.
- If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.
- We may, in the future, issue additional shares of Common Stock, which would reduce investors' percent of ownership and dilute our share value
- Our need for future financing may result in the issuance of additional securities which will cause investors to experience dilution.
- If our shares become subject to the penny stock rules, it would become more difficult to trade our shares.
- Liability of directors for breach of duty is limited under Delaware law.
- We do not anticipate paying any cash dividends on our Common Stock in the foreseeable future and, as such, capital appreciation, if any, of our Common Stock will be your sole source of gain for the foreseeable future.
- We are an "emerging growth company," and any decision on our part to comply with certain reduced disclosure requirements applicable to emerging growth companies could make our Common Stock less attractive to investors.
- As a result of our becoming a public company, we will become subject to additional reporting and corporate governance requirements that will require additional management time, resources and expense.
- We have identified weaknesses in our internal controls, and we cannot provide assurances that these weaknesses will be effectively remediated or that additional material weaknesses will not occur in the future.
- Future sales of a substantial number of our Common Stock by our existing shareholders could cause our stock price to decline.
- Future sales and issuances of our Common Stock or rights to purchase Common Stock, including pursuant to our equity incentive plans and outstanding warrants could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

- The Company will have broad discretion in the use of the net proceeds from this offering and may fail to apply these proceeds effectively.
- There is no assurance that an active and liquid trading market in our Common Stock will develop.
- While our Common Stock is listed on the NASDAQ, the exchange may subsequently delist our Common Stock if we fail to comply with ongoing listing standards.
- You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.
- This is a commercially reasonable “best efforts offering. We may sell fewer than all the securities offered hereby which may not be enough to properly fund the current financial requirements of the Company.

THE OFFERING

Securities offered by us	Up to 16,666,666 shares of Common Stock at $1.50 pershare on a commercially reasonable best efforts basis.
Shares of Common Stock outstanding before this offering[(1)]	8,009,743 shares.
Shares of Common Stock to be outstanding after this offering[(1)]	24,676,409 shares.
Use of Proceeds	We estimate that the net proceeds from this offering will be approximately $23.2 million, if the full amount of the offering is sold, after deducting the placement agent fees and estimated offering expenses payable by us. We intend to use the net proceeds from this offering general working capital and other corporate purposes. See "Use of Proceeds" for a more complete description of the intended use of proceeds from this offering.
Placement Agent's Warrant	The registration statement of which this prospectus is a part also registers warrants (the "Placement Agent's Warrants") to purchase up to shares of Common Stock (10% of the number of Common Stock sold in this offering) to be issued to the placement agent or its designees, as a portion of its compensation payable in connection with this offering, including Public Ventures' and its affiliates' purchase amount in this offering, as well as the Common Stock issuable upon the exercise of the Placement Agent's Warrants. Please see "Plan of Distribution — Placement Agent's Warrants" for a description of these warrants.
Dividend Policy	We have never declared any cash dividends on its Common Stock. We currently intend to use all available funds and any future earnings for use in financing the growth of its business and does not anticipate paying any cash dividends for the foreseeable future.
Risk Factors	You should carefully consider the information set forth in this prospectus and, in particular, the specific factors set forth in the "Risk Factors" section beginning on page 15 of this prospectus before deciding whether or not to invest in our Common Stock.

(1) The number of shares of Common Stock outstanding is based on shares of Common Stock issued and outstanding as of December 31, 2022 and excludes the following:

- 2,196,798 shares of Common Stock issuable upon the exercise of outstanding stock options having a weighted average exercise price of $1.76 per share;
- 253,970 shares of Common Stock issuable upon vesting of RSUs;
- 3,908,276 shares of Common Stock issuable upon the exercise of outstanding warrants having a weighted average exercise price of $5.42 per share;
- 747,364 shares of Common Stock reserved for future issuance under the Company's 2022 Equity Incentive Plan (the "2022 Equity Plan");

Except as otherwise indicated herein, all information in this prospectus reflects or assumes:

- no exercise of the outstanding options described above;
- excludes shares of Common Stock underlying the Placement Agent Warrants to be issued to the placement agent in connection with this offering.

Lock-up	Our officers and directors have agreed to be subject to a lock-up period of 180 days following the closing of this offering. This means that, during the applicable lock-up period, those persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions, including the right to sell any shares of common stock received on the exercise of a restricted stock unit. The Company is subject to a one year lock-up on its being able to sell shares of common stock or securities convertible into common stock without the permission of the placement agent and filing any registration statement relating to the offering of shares of capital stock. It is also restricted for the same one year period in its use of the current at-the-market offering arrangement it has with A.G.P./Alliance Global Partners, subject to approval of any puts by the placement agent and certain minimum market standards. The Company is permitted to issue stock under certain other transactions and stock options or stock awards to directors, officers and employees under our existing plans. Public Ventures may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

RISK FACTORS

An investment in our securities involves substantial risks. In addition to other information in this prospectus, you should carefully consider the following risks and the risks described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 under the caption "Item 1A. Risk Factors," as well as other information and data set forth in this prospectus and the documents incorporated by reference herein, before making an investment decision with respect to our securities. The occurrence of any of the following risks could materially and adversely affect our business, prospects, financial condition, and our results of operations, which could cause you to lose all or a part of your investment in our securities. Some statements in this prospectus, including statements in the following risk factors, constitute forward-looking statements. See "Forward-Looking Statements."

Risks Related To Our Common Stock

The price of our Common Stock may be subject to wide fluctuations.

A consistently active trading market for our Common Stock does not exist and may not develop or be maintained. You may not be able to sell your shares quickly or at the current market price if trading in our stock is not active. You may lose all or a part of your investment. The market price of our Common Stock may be highly volatile and subject to wide fluctuations in response to a variety of factors and risks, many of which are beyond our control. In addition to the risks noted elsewhere in this prospectus, some of the other factors affecting our stock price may include:

- variations in our operating results;
- announcements by us or our competitors of significant contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- announcements by third parties of significant claims or proceedings against us;
- future sales of our Common Stock;
- any delay in our regulatory filings for our product and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- adverse results or delays in clinical trials;
- our decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial;
- adverse regulatory decisions, including failure to receive regulatory approval of our product;
- changes in laws or regulations applicable to our products, including but not limited to clinical trial requirements for approvals;
- adverse developments concerning our manufacturers;
- our inability to obtain adequate product supply for any approved product or inability to do so at acceptable prices;
- our inability to establish collaborations if needed;
- additions or departures of key scientific or management personnel;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- the size and growth of our initial target markets;

- our ability to successfully treat additional types of indications or at different stages;
- actual or anticipated variations in quarterly operating results;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies;
- overall performance of the equity markets;
- sales of our Common Stock by us or our stockholders in the future;
- trading volume of our Common Stock;
- changes in accounting practices;
- ineffectiveness of our internal controls;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our or our licensee's technologies;
- significant lawsuits, including patent or stockholder litigation;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

The offering price of our Common Stock may not be indicative of the value of our assets or the price at which shares can be resold. The offering price of the Shares may not be an indication of our actual value.

The offering price of per share of our Common Stock was determined based upon negotiations between the Company and the placement agent. Factors taken into consideration include the trading volume of our Common Stock prior to this offering, the historical prices at which our shares of Common Stock have recently traded, the history and prospects of our Company, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering, and such other factors as were deemed relevant. No assurance can be given that the securities underlying our Common Stock can be resold at the public offering price.

For these reasons, comparing our operating results on a period-to-period basis may not be meaningful, and you should not rely on past results as an indication of future performance. In the past, following periods of volatility in the market price of a public company's securities, securities class action litigation has often been instituted against the public company. Regardless of its outcome, this type of litigation could result in substantial costs to us and a likely diversion of our management's attention. You may not receive a positive return on your investment when you sell your shares and you may lose the entire amount of your investment.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our Common Stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price may decline. If one or more of these analysts ceases coverage of our Company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

We may, in the future, issue additional shares of Common Stock, Warrants or Preferred Stock, which would reduce investors' percent of ownership and dilute our share value

Our Certificate of Incorporation authorizes the issuance of 100,000,000 shares of Common Stock and 10,000,000 shares of Preferred Stock. As of December 31, 2022, there are outstanding 8,009,743 shares of Common Stock and zero shares of Preferred Stock.

Our need for future financing may result in the issuance of additional securities which will cause investors to experience dilution.

Our cash requirements may vary from those now planned which depend upon numerous factors, including the result of future research and development activities, our ability to estimate future expenses and acceptance of our products in the market.

There are no significant commitments for future financing of the commercial phase of our telehealth Product and other future products. In the future, our securities may be offered to other investors at a price lower than the price per share paid by our investors, or upon terms which may be deemed more favorable than previously offered. In addition, the issuance of securities in any future financing using our securities may dilute an investor's equity ownership. Moreover, we may issue other equity securities with derivative features to procure qualified personnel or for other business reasons. The issuance of any such derivative securities, which is at the discretion of our board of directors, may further dilute the equity ownership of our stockholders, including the investors in this offering. No assurance can be given as to our ability to procure additional financing, if required, and on terms deemed favorable to us. To the extent additional capital is required and cannot be raised successfully, we may then have to limit our then current operations and/or may have to curtail certain, if not all, of our business objectives and plans.

If our shares become subject to the penny stock rules, it would become more difficult to trade our shares.

The SEC has adopted regulations, which generally define "penny stock" to be an equity security that has a market price of less than $5.00 per share, subject to specific exemptions. The market price of our Common Stock is less than $5.00 per share and therefore may be a "penny stock." Brokers and dealers effecting transactions in "penny stock" must disclose certain information concerning the transaction, obtain a written agreement from the purchaser and determine that the purchaser is reasonably suitable to purchase the securities. These rules may restrict the ability of brokers or dealers to sell our Common Stock and may affect your ability to sell shares of our Common Stock in the future.

Liability of directors for breach of duty is limited under Delaware law.

Our certificate of incorporation limits the liability of directors to the maximum extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to us or our stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases, or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under the federal or state securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

Our bylaws provide that we will indemnify for our directors and officers to the fullest extent permitted by law and may indemnify employees and other agents. Our bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding.

We entered into separate indemnification agreements with our directors and officers. These agreements, among other things, require us to indemnify our directors and officers for any and all expenses (including reasonable attorneys' fees, retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees) judgments, fines and amounts paid in settlement

actually and reasonably incurred by such directors or officers or on his or her behalf in connection with any action or proceeding arising out of their services as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request provided that such person follows the procedures for determining entitlement to indemnification and advancement of expenses set forth in the indemnification agreement. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might provide a benefit to us and our stockholders. Our results of operations and financial condition may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

In so far as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

At present, there is no pending litigation or proceeding involving any of our directors or officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

We do not anticipate paying any cash dividends on our Common Stock in the foreseeable future and, as such, capital appreciation, if any, of our Common Stock will be your sole source of gain for the foreseeable future.

We do not anticipate paying any cash dividends on our Common Stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. In addition, and any future loan arrangements we enter into may contain, terms prohibiting or limiting the amount of dividends that may be declared or paid on our Common Stock. As a result, capital appreciation, if any, of our Common Stock will be your sole source of gain for the foreseeable future.

Risks Related to this Offering

We are an "emerging growth company," and any decision on our part to comply with certain reduced disclosure requirements applicable to emerging growth companies could make our Common Stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, not being required to comply with any new requirements adopted by the Public Company Accounting Oversight Board (the "PCAOB"), requiring mandatory audit firm rotation or a supplement to the auditor's report in which the auditor would be required to provide additional information about the audit and the financial statements of the issuer, not being required to comply with any new audit rules adopted by the PCAOB after April 5, 2012 unless the SEC determines otherwise, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could remain an emerging growth company until the earlier of: (i) the last day of the fiscal year in which we have total annual gross revenues of $1.235 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of our first sale of common equity securities pursuant to an effective registration statement; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer. We cannot predict if investors will find our Common Stock less attractive if we choose to rely on these exemptions. If some investors find our Common Stock less attractive as a result of any choices to reduce future disclosure, there may be a less active trading market for our Common Stock and our stock price may be more volatile. Further, as a result of these scaled regulatory requirements, our disclosure may be more limited than that of other public companies and you may not have the same protections afforded to shareholders of such companies.

Section 107 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended (the "Securities Act"), for complying with new or revised accounting standards. We have opted for taking advantage of the extended transition period for complying with new or revised accounting standards pursuant to Section 107(b) of the Jobs Act.

We have identified weaknesses in our internal controls, and we cannot provide assurances that these weaknesses will be effectively remediated or that additional material weaknesses will not occur in the future.

As a public company, we are subject to the reporting requirements of the Exchange Act, and the Sarbanes-Oxley Act. We expect that the requirements of these rules and regulations will continue to increase our legal, accounting and financial compliance costs, make some activities more difficult, time consuming and costly, and place significant strain on our personnel, systems and resources.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures, and internal controls over financial reporting.

We do not yet have effective disclosure controls and procedures, or internal controls over all aspects of our financial reporting. We are continuing to develop and refine our internal controls over financial reporting. Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. We will be required to expend time and resources to further improve our internal controls over financial reporting, including by expanding our staff. However, we cannot assure you that our internal control over financial reporting, as modified, will enable us to identify or avoid material weaknesses in the future.

We have identified material weaknesses in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our financial statements will not be prevented or detected on a timely basis. The material weaknesses identified to date include (i) lack of formal risk assessment under COSO framework (ii) policies and procedures which are not adequately documented, (iii) lack of proper approval processes, review processes and documentation for such reviews, (iv) insufficient GAAP experience regarding complex transactions and ineffective review processes over period end financial disclosure and reporting and (v) insufficient segregation of duties.

We will be required to expend time and resources to further improve our internal controls over financial reporting. However, we cannot assure you that our internal control over financial reporting, as modified, will enable us to identify or avoid material weaknesses in the future.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business. Further, weaknesses in our disclosure controls or our internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations and may result in a restatement of our financial statements for prior periods. Any failure to implement and maintain effective internal control over financial reporting could also adversely affect the results of management reports and independent registered public accounting firm audits of our internal control over financial reporting that we will eventually be required to include in our periodic reports that will be filed with the SEC. Ineffective disclosure controls and procedures, and internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which would likely have a negative effect on the market price of our common stock.

Our independent registered public accounting firm is not required to audit the effectiveness of our internal control over financial reporting until after we are no longer an "emerging growth company" as defined in the JOBS Act and meet other requirements. At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our internal control over financial reporting is documented, designed or operating. Any failure to maintain effective disclosure controls and internal control over financial reporting could have a material and adverse effect on our business and operating results, and cause a decline in the market price of our common stock.

Future sales of a substantial number of our Common Stock by our existing shareholders could cause our stock price to decline.

Prior to the consummation of this offering, as of December 31, 2022 we have 8,009,743 shares of our Common Stock outstanding. Upon consummation of this offering, we have agreed to issue up to 16,666,666 shares of our Common Stock, assuming the full amount of the shares being offered are sold. We have also filed a registration statement for $13 million under an ATM as a stand-alone. All of the shares sold in this offering will be eligible for sale in the public markets upon closing. It is conceivable that many shareholders may wish to sell some or all of their shares. If our shareholders sell substantial amounts of our Common Stock in the public market at the same time, the market price of our Common Stock could decrease significantly due to an imbalance in the supply and demand of our Common Stock. Even if they do not actually sell the Common Stock, the perception in the public market that our shareholders might sell significant Common Stock could also depress the market price of our Common Stock.

Future sales and issuances of our Common Stock or rights to purchase Common Stock, including pursuant to our equity incentive plans and outstanding warrants could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital may be needed in the future to continue our planned operations, including conducting clinical trials, commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell Common Stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell Common Stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our Common Stock, including shares of Common Stock sold in this offering. Initially, the aggregate number of shares of our Common Stock that may be issued pursuant to stock awards under our 2022 Equity Plan is 1,900,000 shares, and as of December 31, 2022, 747,364 were available for issuance. Increases in the number of shares available for future grant or purchase may result in additional dilution, which could cause our stock price to decline.

The Company will have broad discretion in the use of the net proceeds from this offering and may fail to apply these proceeds effectively.

The Company's management will have broad discretion in the application of the net proceeds of this offering, including using the proceeds to conduct operations, expand the Company's business lines and for general working capital. The Company may also use the net proceeds of this offering to acquire or invest in complementary businesses, products, or technologies, or to obtain the right to use such complementary technologies. We have no commitments with respect to any acquisition or investment; however, we seek opportunities and transactions that management believes will be advantageous to the Company and its operations or prospects. We cannot specify with certainty the actual uses of the net proceeds of this offering. You may not agree with the manner in which our management chooses to allocate and spend the net proceeds. We may invest the net proceeds from this offering in a manner that does not produce income or that loses value. The failure by our management to apply these funds effectively could harm our business, financial condition and results of operations.

Although our Common Stock is listed on the Nasdaq Capital Market, the exchange may subsequently delist our Common Stock if we fail to comply with ongoing listing standards.

Although our Common Stock is listed on the Nasdaq Capital Market, the exchange will require us to meet certain financial, public float, bid price and liquidity standards on an ongoing basis in order to continue the listing of our Common Stock. If we fail to meet these continued listing requirements, our Common Stock may be subject to delisting. If our Common Stock are delisted and we are not able to list such Common Stock on another national securities exchange, we expect our securities would be quoted on an over-the-counter market; however, if this were to occur, our stockholders could face significant material adverse consequences, including limited availability of market quotations for our Common Stock and reduced liquidity for the trading of our securities. In addition, in the event of such delisting, we could experience a decreased ability to issue additional securities and obtain additional financing in the future. Even though our Common Stock are listed on the Nasdaq Capital Market, there can be no assurance that an active trading market for our Common Stock will develop or be sustained after our initial listing.

Our failure to maintain compliance with Nasdaq's continued listing requirements could result in the delisting of our common stock and/or our warrants.

On March 20, 2023, we received a letter from The Nasdaq Stock Market LLC ("Nasdaq") indicating that we are not in compliance with Nasdaq Listing Rule 5550(b)(1), which requires companies listed on The Nasdaq Stock Market to maintain a minimum of $2,500,000 in stockholders' equity for continued listing. In our annual report on Form 10-K for the period ended December 31, 2022, we reported stockholders' equity of approximately $2,374,000, which does not currently satisfy Listing Rule 5550(b)(1).

Nasdaq's letter has no immediate impact on the listing of our common stock or warrants, which will continue to be listed and traded on Nasdaq, subject to our compliance with the other continued listing requirements. Nasdaq's letter provides us with 45 calendar days, or until May 4, 2023, to submit a plan to regain compliance. If the plan is accepted, we can be granted up to 180 calendar days from March 20, 2023 (or September 18, 2023), to evidence compliance.

We intend to regain compliance with the applicable continued listing requirements of Nasdaq prior to the end of the compliance period set forth in the letter. However, until Nasdaq has reached a final determination that the Company has regained compliance with all of the applicable continued listing requirements, there can be no assurances regarding the continued listing of our common stock or warrants on Nasdaq. The delisting of our common stock and warrants from Nasdaq would have a material adverse effect on our access to capital markets, and any limitation on market liquidity or reduction in the price of its common stock as a result of that delisting would adversely affect our ability to raise capital on terms acceptable to the Company, if at all.

This letter from Nasdaq does not affect our business, operations or reporting requirements with the Securities and Exchange Commission.

You will experience immediate and substantial dilution as a result of this offering and may experience additional dilution in the future.

If you purchase shares of Common Stock in this offering, the value of your shares based on our actual book value will immediately be less than the price you paid. This reduction in the value of your equity is known as dilution. This dilution occurs in large part because our existing stockholders paid less than the assumed public offering price when they acquired their shares of Common Stock. Based upon the issuance and sale of 16,666,666 shares of Common Stock by us in this offering at a public offering price of $1.50 per share, you will incur immediate dilution of in the net tangible book value per share of Common Stock. If outstanding options to purchase our Common Stock are exercised, investors will experience additional dilution. For more information, see "Dilution."

This is a commercially reasonable "best efforts offering. We may sell fewer than all the securities offered hereby which may not be enough to properly fund the current financial requirements of the Company.

The placement agent has agreed to use its commercial reasonable best efforts to solicit offers to purchase the securities in this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of the securities. There is no required minimum number of securities that must be sold as a condition to completion of this offering. As there is no minimum offering amount required as a condition to the closing of this offering, the actual offering amount, placement agent fees and proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth above. Investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. Also, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan.

Subscriptions by investors are irrevocable during the offering period.

Investors will make their subscriptions during the offering period that will end on May18, 2023, unless extended to a date not later than May 25, 2023. Once the subscription agreement for the purchase of the securities offered hereby is submitted to the placement agent and the purchase price is paid to the escrow agent, the subscription is irrevocable. Subscription funds will only be returned to the investor if the offering is terminated prior to the closing by the Company in its sole discretion. The return of subscription funds, if that occurs, will be without interest or deduction, made by the escrow agent.

USE OF PROCEEDS

Assuming the sale of all of the shares in this offering, we estimate that the net proceeds from the sale of shares will be approximately $23.2 million. “Net proceeds” is what we expect to receive after deducting the placement agent fees and estimated offering expenses payable by us. However, because this is a best efforts offering with no minimum number of securities or amount of proceeds as a condition to closing, the actual offering amount, the placement agent’s fees and net proceeds to us are not presently determinable and may be substantially less than the maximum amounts set forth on the cover page of this prospectus, and we may not sell all or any of the securities we are offering. As a result, we may receive significantly less in net proceeds.

We intend to use the net proceeds from this offering to conduct operations, increase marketing efforts, and investments in our existing business initiatives and products, as well as general working capital. We anticipate budgeting approximately $23.2 million, of the proceeds from the offering for conducting operations and for working capital.

We may also use a portion of the net proceeds of this offering to acquire or invest in complementary businesses, products, or technologies, or to obtain the right to use such complementary technologies. We have no commitments with respect to any acquisition or investment and is not currently involved in any negotiations with respect to any such transactions.

We currently intend to use the net proceeds from this offering as follows:

- We anticipate budgeting approximately $10 million to fund engineering and regulatory work for HeartBeam AIMI and HeartBeam AIMIGo, to achieve FDA 510(k) submission of versions 1 and 2 of our telehealth product and to ready the product for limited market releases during 2023; and
- the balance for working capital and general corporate purposes.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. The amounts and timing of its actual expenditures will depend on numerous factors, including the status of its product development efforts, sales and marketing activities, technological advances, amount of cash generated or used by its operations and competition. Accordingly, our management will have broad discretion in the application of the net proceeds and investors will be relying on the judgment of its management regarding the application of the proceeds of this offering.

We believe we will need to raise additional funding of approximately $30 million for commercialization of HeartBeam AIMIGo and ongoing development and commercialization of additional products utilizing our 3D VECG technology platform before becoming cash flow positive.

DILUTION

If you invest in our Common Stock in this offering, your ownership interest will be diluted to the extent of the difference between the assumed offering price per share of its Common Stock and the as adjusted net tangible book value per share of its Common Stock immediately after the offering. Historical net tangible book value per share represents the amount of the Company's total tangible assets less total liabilities, divided by the number of shares of its Common Stock outstanding.

The historical net tangible book value (deficit) of our Common Stock as of December 31, 2022, was approximately $2.4 million or $0.30 per share based upon shares of Common Stock outstanding on such date. Historical net tangible book value (deficit) per share represents the amount of its total tangible assets reduced by the amount of its total liabilities, divided by the total number of shares of Common Stock outstanding.

After giving effect to the sale of all of the 16,666,666 of shares of Common Stock offered in this offering at an assumed public offering price of $1.50 per share after deducting estimated placement agent fees and our estimated offering expenses net tangible book value as of December 31, 2022 would have been $25,536,499 or $1.03 per share. This represents an immediate increase in net tangible book value of $0.73 per share, to the existing stockholders, and an immediate dilution in net tangible book value of $0.47 per share to new investors.

The following table illustrates this per share dilution of shares of Common Stock sold in this offering:

Assumed public offering price per share	$	1.50
Historical net tangible book value per share as of December 31, 2022	$	0.30
Increase in net tangible book value per share attributable to this offering	$	0.73
As adjusted net tangible book value per share after giving effect to this offering	$	1.03
Dilution per share to new investors in this offering	$	0.47

The information discussed above is illustrative only, and the dilution information following this offering will be adjusted based on the actual public offering price and other terms of this offering determined at pricing. A $1.00 increase in the assumed public offering price of $1.50 per share would increase the net tangible book value by $0.64 per share and increase the dilution to new investors by $0.36 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated placement agent fees and estimated expenses payable by us. Similarly, a $1.00 decrease in the assumed public offering price of $1.50 per share would decrease the net tangible book value by $0.63 per share and decrease the dilution to new investors by $0.37 per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated placement agent fees and estimated expenses payable by us. We may also increase or decrease the number of shares in the offering. An increase of 100,000 shares offered by us would increase the net tangible book value by $0.01 per share and decrease the dilution to new investors by $0.01 per share, assuming the assumed public offering price of $1.50 per share remains the same and after deducting the estimated placement agent fees and estimated expenses payable by us. Similarly, a decrease of 100,000 shares offered by us would decrease the net tangible book value by $0.00 per share and increase the dilution to new investors by $0.00 per share, assuming the assumed public offering price of $1.50 per share remains the same and after deducting the estimated placement agent fees and estimated expenses payable by us.

The number of shares of Common Stock outstanding is based on 8,009,743 shares of Common Stock issued and outstanding as of December 31, 2022, and excludes the following:

- 2,196,798 shares of Common Stock issuable upon the exercise of outstanding stock options having a weighted average exercise price of $1.76 per share;
- 253,970 shares of Common Stock issuable upon vesting of RSUs;
- 3,908,276 shares of Common Stock issuable upon the exercise of outstanding warrants having a weighted average exercise price of $5.42 per share;
- 747,364 shares of Common Stock reserved for future issuance under the Company's 2022 Equity Plan

Except as otherwise indicated herein, all information in this prospectus assumes:

- no exercise of the outstanding options or warrants described above; and
- any Placement Agent Warrants issued to the placement agent as fees.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding our Common Stock, beneficially owned as of March 31, 2023 (i) each person known to the Company to beneficially own more than 5% of its Common Stock, (ii) each executive officer, director and director nominee and (iii) all officers, directors and director nominees as a group. The following table is based on the Company having 8,227,074 shares of Common Stock issued and outstanding as of March 31, 2023. The Company calculated beneficial ownership according to Rule 13d-3 of the Securities Exchange Act of 1934, as amended as of that date. Shares of the Company's Common Stock issuable upon exercise of options or warrants or conversion of notes that are exercisable or convertible within 60 days after March 31, 2023 are included as beneficially owned by the holder, but not deemed outstanding for computing the percentage of any other stockholder for Percentage of Common Stock Beneficially Owned. For each individual and group included in the table below, percentage ownership is calculated by dividing the number of shares beneficially owned by such person or group by the sum of the 8,227,074 shares of Common Stock outstanding at March 31, 2023, plus the number of shares of Common Stock that such person or group had the right to acquire on or within 60 days after March 31, 2023. Beneficial ownership generally includes voting and dispositive power with respect to securities. Unless otherwise indicated below, the persons and entities named in the table have sole voting and sole dispositive power with respect to all shares beneficially owned.

Name	Shares Beneficially Owned	%
Richard Ferrari[1]	180,294	2.16%
Branislav Vajdic. PhD[2]	1,066,057	12.72%
George A. de Urioste[3]	19,255	*
Marga Ortigas-Wedekind[4]	57,737	*
Willem Pieter Elfrink[5]	394.330	4.75%
Richard Brounstein[6]	153,774	1.86%
Robert Eno[7]	35,202	*
Kenneth Persen[8]	—	—%
All directors and executive officers as a group (8 persons)	1,906,649	21.88%
Bosko Bojovic[9] Alekse Nenadovica, 18 11000 Belgrade Serbia	517,272	6.29%

* Less than 1 percent ownership

(1) Includes (i) 65,653 shares acquired from the conversion of 2015 Convertible Notes and (ii) 114,641 options exercisable within 60 days after March 31, 2023. Does not include 94,449 unvested stock options and 73,529 unvested RSUs.

(2) Includes (i) 794,545 shares acquired as founders equity, (ii) 115,559 shares acquired from the conversion of 2015 Convertible Notes, (iii) 1,287 shares acquired from the exercise warrants, (iv) 119,666 options exercisable within 60 days after March 31, 2023, and (v) 35,000 BEATW exercisable warrants. Does not include 239,334 unvested stock options.

(3) Includes 19,255 options exercisable within 60 days after March 31, 2023. Does not include 24,745 unvested stock options and 55,147 unvested RSUs.

(4) Includes (i) 9,000 units of shares and warrants purchased November 11, 2021, (ii) 9,000 BEATW exercisable warrants, (iii) 7,824 shares acquired from the conversion of 2015 Convertible Notes, and (iii) 31,913 options exercisable within 60 days after March 31, 2023. Does not include 11,722 unvested stock options and 55,147 unvested RSUs.

(5) Includes (i) 101,818 shares acquired under the 2015 Incentive Plan (ii) 207,056 shares acquired from the conversion of 2015 Convertible Notes, (iii) 3,640 shares acquired from the exercise warrants, (iv) 21,816 options exercisable within 60 days after March 31, 2023 and (v) 60,000 BEATW exercisable warrants. Does not include (a) 21,820 unvested stock options and (b) 55,147 unvested RSUs.

(6) Includes (i) 72,725 shares acquired under the 2015 Incentive Plan, (ii) 5,000 shares and 5,000 BEATW warrants purchased November 11, 2021, (iii) 5,000 shares and 10,000 BEATW warrants acquired on the open market, (iv) 29,197 shares acquired from the conversion of 2015 Convertible Notes, (v) 26,668 options exercisable within 60 days after March 31, 2023, and (vi) 184 shares acquired from the exercise warrants. Does not include 53,332 unvested stock options.

(7) Includes 35,202 options exercisable within 60 days after March 31, 2023. Does not include 250,161 unvested stock options.

(8) Does not include 140,000 unvested stock options.

(9) Represents 517,272 shares acquired as founders' equity.

PLAN OF DISTRIBUTION

We engaged Public Ventures, LLC (the "placement agent" or "Public Ventures") to act as our exclusive placement agent to solicit offers to purchase the securities offered by this prospectus on a commercially reasonable best efforts basis. The placement agent may engage sub-placement agents to assist in the placement of the securities offered hereby. The placement agent is not obligated to purchase or sell any of the securities offered by this prospectus, but it has agreed to use its commercially reasonable "best efforts" to find eligible purchasers for the securities offered hereby. The placement agent and its affiliates and affiliates of the company may participate in the offering. There is no minimum offering amount required as a condition to the closing of this offering.

The offering price and other terms of this offering will be subject to market conditions and negotiations between the company and the placement agent. The placement agent will have no authority to bind the company to any sale of the securities offered by this prospectus. Investors will enter into a securities purchase agreement in the form attached as an exhibit to the Registration Statement of which this prospectus is a part, and they shall rely on this prospectus in connection with the purchase of our securities in this offering.

As a commercially reasonable "best efforts" offering, there can be no assurance that the offering contemplated hereby will ultimately be consummated or that the full amount of the securities offered will be sold. We also have the right to terminate the offering at any time in our discretion prior to the closing of the offering. In the event of a termination of the offering, investor funds will be promptly returned by the escrow agent to investors without interest or offset accordance with rules 10b-9 and 15c2-4 promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act").

This offering will terminate on May 18, 2023 unless we decide to terminate the offering prior to that date. Prior to the termination date, we may extend the offering to May 25, 2023. We will have one closing for all the securities purchased in this offering. The public offering price per share will be fixed for the duration of this offering.

Fees and Expenses

We have agreed to pay Public Ventures a total cash fee equal to 6.35% of the aggregate gross proceeds of this offering. Public Ventures and/or its affiliates will purchase securities in the offering, on the exact same terms as all the other investors in the offering, up to an amount equal to the cash fee the company will owe under the selling agent agreement, which will be calculated on the gross proceeds of the offering including the Public Ventures and affiliated persons' purchase amount in the offering. The gross proceeds on which the cash fee is paid will include any amount that Public Ventures and its affiliates invest, and so as to fulfil this intention, the purchase by other investors may be reduced or rejected at the direction of Public Ventures with the agreement of the company. Public Ventures will be responsible for all its expenses in connection with this offering, including its legal fees. The company is responsible for all its costs and expenses associated with this offering, except those that FINRA regulation requires to be borne by a selling agent, placement agent or underwriter. Excluding the placement agent fees, we estimate the total offering expenses of this offering that will be payable by us will be approximately $250,000.

The following table summarizes the per share and total cash placement agent's fees that the Company will pay to the placement agent in connection with the sale of the securities offered pursuant to this prospectus assuming a public offering price of $1.50 per share of common stock:

Placement Agent Cash Fee per share of Common Stock	$	0.09525
Total Cash Fees to be Paid to Placement Agent	$	1,587,500

Placement Agent Warrants

In addition, we have agreed to issue to Public Ventures or its designees warrants to purchase up to 10% of the shares of Common Stock sold in the offering, with an exercise price of $1.875 per share (representing 125% of the public offering price per share) and exercisable for five years from the date of the commencement of sales in this offering (the "Placement Agent Warrants"). The Placement Agent Warrants will be issued on the gross proceeds of the offering including Public Ventures' and its affiliates' purchase amount in the offering and will contain cashless exercise provisions, representations and warranties normal and customary for warrants issued to placement agents, registration rights, including one demand registration right during a period four years beginning three hundred sixty-five days after the effective date of the Registration Statement and unlimited piggyback registration rights for a period of seven

years after the effective date of the Registration Statement of which this prospectus is a part, and will not be callable or terminable prior to the expiration date. Except as permitted by the applicable rules of FINRA, the Placement Agent Warrants and the underlying shares of common stock shall not be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any holder of the Placement Agent Warrants prior to the date that is one hundred eighty (180) days immediately following the effective date of the Registration Statement of which this Prospectus is a part, pursuant to FINRA Rule 5110(e)(1), except as permitted under FINRA Rule 5110(e)(2).

Determination of Offering Price

The public offering price per share of common stock we are offering was negotiated between us and the placement agent based on the valuation of the company. Factors taken into consideration include the trading volume of our common stock prior to this offering, the historical prices at which our shares of common stock have recently traded, the history and prospects of our company, the stage of development of our business, our business plans for the future and the extent to which they have been implemented, an assessment of our management, general conditions of the securities markets at the time of the offering, and such other factors as were deemed relevant.

Subscriptions & Escrow

The securities are being offered will be sold in a single closing. Prior to the closing of this offering, (i) each participating investor in this offering will execute and deliver a Subscription Agreement (each, a "Subscription Agreement") to the placement agent, that the placement agent will make available to the Company and Delaware Trust Company, as Escrow Agent (the "Escrow Agent"); (ii) each participating investor will transfer to a non - interest bearing deposit account maintained by the Escrow Agent (the "Escrow Account") funds in an amount equal to the price per share as shown on the cover page of this prospectus multiplied by the number of shares subscribed by the participating investor; (iii) subscription funds received from any participating investor will be promptly transmitted to the Escrow Account in compliance with Rule 15c2-4 of the Exchange Act; and (iv) upon request of the Company or the placement agent, the Escrow Agent will notify the Company or the placement agent, as applicable, in writing of the balance of the Escrow Account (the "Investor Funds").

Payments under a Subscription Agreement are required to be sent to the Escrow Agent in accordance with the terms of the Subscription Agreement. All payments must be made in United States currency by personal check, bank draft, cashier's check, ACH, or federal funds wire transfer. All personal checks or cashier's checks delivered to the Escrow Agent shall be made payable to "Delaware Trust Company, as Escrow Agent for HeartBeam, Inc." In the event that the placement agent directly receives any payment from a participating investor in connection with the purchase of any securities, the payment will be transmitted to and deposited into the Escrow Account by the placement agent within one day after receipt. All subscription agreements and when funds are made are irrevocable.

The placement agent will record each Subscription Agreement in an electronic logbook which will be shared periodically with the company for verification purposes. Information contained within the electronic logbook will include the date of the subscription agreement, subscriber name, number of shares the subscriber agreed to purchase, and total payment amount to be sent to the Escrow Agent. The placement agent will perform accuracy checks to ensure each Subscription Agreement has been completed, signed, and successfully reflected on the electronic logbook.

A fully executed Subscription Agreement is irrevocable, and may only be terminated in limited circumstances, including breach of terms of the Subscription Agreement, or by the placement agent if it believes that such investment compromises the integrity of the placement agent's legal and contract obligations. Accordingly, subscribers cannot withdraw their funds during the offering period regardless of whether the price of the securities offered increases or decreases significantly between the time a Subscription Agreement is executed and delivered and the closing of the offering. Once a Subscription Agreement is accepted, it will be executed without reconfirmation to or from the participating investor, and the participating investor cannot withdraw the Subscription Agreement.

In accordance with the Subscription Agreement and the Escrow Agreement among the Escrow Agent, the placement agent and the Company, the Escrow Agent will be instructed on or before 10:00 a.m., New York time, on the date of the closing of this offering, to either: (i) release the Investor Funds to the Company for purposes of purchasing the securities and the Company will concurrently deliver the securities purchased at the closing of this offering to the participating investors, which delivery shall be made through the facilities of DTC, or (ii) if the Company will not proceed with the offering and all investor funds will be promptly returned to the applicable participating investors without interest in accordance with Exchange Act rules 10b-9 and 15c2-4.

The closing shall take place at the office of the placement agent or such other location as the Company and the placement agent shall mutually agree. All actions taken at the closing shall be deemed to have occurred simultaneously on the date of the closing of the offering.

Indemnification

We have agreed to indemnify the placement agent against certain liabilities, including certain liabilities arising under the Securities Act of 1933, as amended (the "Securities Act"), or to contribute to payments that the placement agent may be required to make for these liabilities.

Regulation M

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act and any fees received by it and any profit realized on the sale of the securities by it might be deemed to be placement agent fees under the Securities Act. The placement agent will be required to comply with the requirements of the Securities Act and the Exchange Act of 1934, as amended (the "Exchange Act"), including, without limitation, Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of our securities by the placement agent. Under these rules and regulations, the placement agent may not (i) engage in any stabilization activity in connection with our securities; and (ii) bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until they have completed their participation in the distribution.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the placement agent and the placement agent may distribute prospectuses electronically. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the placement agent and should not be relied upon by investors.

Lock-up Agreements

Our officers and directors have agreed to be subject to a lock-up period of 180 days following the closing of this offering. This means that, during the applicable lock-up period, those persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions, including the right to sell any shares of common stock received on the exercise of a restricted stock unit. The Company is subject to a one year lock-up on its being able to sell shares of common stock or securities convertible into common stock without the permission of the placement agent and filing any registration statement relating to the offering of shares of capital stock. It is also restricted for the same one year period in its use of the current at-the-market offering arrangement it has with A.G.P./Alliance Global Partners, subject to approval of any puts by the placement agent and certain minimum market standards. The Company is permitted to issue stock and stock options or stock awards to directors, officers and employees under our existing plans. Public Ventures may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

Other Relationships

The placement agent and its affiliates have engaged, and may in the future engage, in investment banking transactions and other commercial dealings in the ordinary course of business with us or our affiliates. The placement agent has received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the placement agent and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The placement agents and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is VStock Transfer with an address of 18 Lafayette Place Woodmere, New York 11598.

The Nasdaq Capital Market Listing

Our Common Stock and warrants are currently listed on The Nasdaq Capital Market under the symbol “BEAT” And “BEATW”, respectively.

This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

DESCRIPTION OF SECURITIES

Authorized and Outstanding Capital Stock

The following description of the Company's capital stock and provisions of its Articles of Incorporation and Bylaws are summaries and are qualified by reference to the Company's Articles of Incorporation and Bylaws which are filed as exhibits to the registration statement of which this prospectus forms a part.

The Company is authorized to issue 110,000,000 shares of capital stock, consisting of 100,000,000 shares of Common Stock, par value $0.0001 per share and 10,000,000 shares of Preferred Stock, par value $0.0001 per share.

As of December 31, 2022, the Company had 8,009,743 outstanding shares of Common Stock held by approximately 50 shareholders of record.

Common Stock

The holders of our Common Stock are entitled to one vote per share. In addition, the holders of our Common Stock will be entitled to receive dividends ratably, if any, declared by our board of directors out of legally available funds; however, the current policy of the board of directors is to retain earnings, if any, for operations and growth. Upon liquidation, dissolution or winding-up, the holders of our Common Stock are entitled to share ratably in all assets that are legally available for distribution. The holders of our Common Stock have no pre-emptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our Common Stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock, which may be designated solely by action of the board of directors and issued in the future.

Preferred Stock

Our Board of Directors will have the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of Common Stock. The issuance of our preferred stock could adversely affect the voting power of holders of Common Stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action.

Indemnification of Directors and Officers

Each of our Articles of Incorporation and our Bylaws provide for indemnification of our directors and officers. Our Bylaws provide that we will indemnify any person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director or officer of the corporation, against expenses (including attorney's fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent will not, without more, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interest of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful. We may by action of our Board of Directors, grant rights to indemnification and advancement of expenses to employees and agents of the Company with the same scope and effects as the indemnification provisions for officers and directors.

Disclosure of Commission Position on Indemnification for Securities Act Liabilities

Insofar as indemnification for liabilities under the Securities Act may be permitted to officers, directors or persons controlling the Company pursuant to the foregoing provisions, the Company has been informed that is it is the opinion of the Securities and Exchange Commission that such indemnification is against public policy as expressed in such Securities Act and is, therefore, unenforceable.

2022 Equity Incentive Plan

On June 15, 2022, our Board of Directors approved the 2022 Equity Incentive Plan ("2022 Equity Plan"), to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to employees, directors, and consultants, and to promote the success of the Company's business. The 2022 Equity Plan provides for the grant of stock options and restricted stock awards ("RSUs") to purchase common stock. The Board of Directors approved 1,900,000 shares of Common Stock issuance under the 2022 Equity Plan.

As of December 31, 2022, there were 747,364 shares available for issuance under the 2022 Equity Plan. The number of shares available for issuance under the 2022 Equity Plan will be increased on the first day of each fiscal year beginning with the 2023 fiscal year, in an amount equal to the least of 3,800,000 Shares, five percent (5%) of the total number of shares of all classes of common stock of the Company outstanding on the last day of the immediately preceding fiscal year, and a lesser number of Shares determined by the Administrator. On January 1, 2023 400,487 shares were added to the shares available for issuance under the 2022 Equity Plan.

Eligible recipients of option awards are employees, officers, consultants, attorneys, advisors or directors (including non-employee directors) of the Company or of any parent, subsidiary or affiliate of the Company. The Board of Directors has the authority to grant to any eligible recipient any options, restricted stock or other awards valued in whole or in part by reference to, or otherwise based on, the Company's Common Stock; provided, however, that Incentive Options may only be granted to employees of the Company or its subsidiaries.

The provisions of each option granted need not be the same with respect to each option recipient. Option recipients have entered into award agreements with the Company, in such form as the full Board of Directors has determined.

The 2022 Equity Plan is administered by the Board of Directors.

LEGAL MATTERS

The validity of the Common Stock offered by us in this offering will be passed upon for us by Lucosky Brookman LLP, Woodbridge, New Jersey. Certain legal matters will be passed upon for the placement agent by Golenbock Eiseman Assor Bell & Peskoe, LLP, New York City, New York.

EXPERTS

The financial statements as of and for the year ended December 31, 2022 incorporated by reference in this registration statement have been audited by Marcum LLP, an independent registered public accounting firm, as stated in their report (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern). Such financial statements are incorporated by reference in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

The financial statements as of and for the year ended December 31, 2021 incorporated by reference in this registration statement have been audited by Friedman LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated by reference in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-1 under the Securities Act, with respect to the shares being offered under this prospectus. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to the Company and the securities being offered under this prospectus, please refer to the complete registration statement and the exhibits and schedules filed as a part of the registration statement.

You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The SEC's Internet site can be found at *http://www.sec.gov*. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and other reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge on the SEC's website.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

SEC rules allow us to "incorporate by reference" into this prospectus much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference into this prospectus, including the consolidated financial statements, is considered to be part of this prospectus. These documents may include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements. You should read the information incorporated by reference because it is an important part of this prospectus.

This prospectus incorporates by reference the documents listed below, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 16, 2023;
- our Current Reports on Form 8-K filed with the SEC on January 24, 2023, February 2, 2023, March 3, 2023, March 8, 2023, March 9, 2023, March 13, 2023 and March 24, 2023; and
- our 2022 equity incentive plan on Form S-8 filed with the SEC July 13, 2022;

All documents we file with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any report or document that is not deemed filed under such provisions, (i) on or after the date of filing of the registration statement containing this prospectus and prior to the effectiveness of the registration statement and (ii) on or after the date of this prospectus until the earlier of the date on which all of the securities registered hereunder have been sold or this prospectus has been withdrawn, shall be deemed incorporated by reference in this prospectus and to be a part of this prospectus from the date of filing of those documents. The information in documents that we file in the future will update and supersede the information currently included and incorporated by reference in this prospectus. Nothing in this prospectus shall be deemed to incorporate information furnished but not filed with the SEC pursuant to Item 2.02 or 7.01 of Form 8-K.

These documents may also be accessed on our website at *https://www.heartbeam.com/*. Information contained in, or accessible through, our website is not a part of this prospectus.

We will provide without charge to each person, including any beneficial owners, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all reports or documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with this prospectus, excluding exhibits to those reports or documents unless they are specifically incorporated by reference into those documents. You may request a copy of these documents by writing or telephoning us at the following address:

Branislav Vajdic
Chief Executive Officer
HeartBeam, Inc.
2118 Walsh Avenue, Suite 210
Santa Clara, CA 95050
Telephone: 408-899-4443

16,666,666

Shares of Common Stock

HEARTBEAM, INC.

PROSPECTUS

PUBLIC VENTURES, LLC

April 21, 2023