As confidentially filed with the Securities and Exchange Commission on November 30, 2022.

Registration Statement No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 1
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

HEARTBEAM, INC.

(Exact name of Registrant as specified in its charter)

Delaware	541714	47-4881450
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification No.)*

2118 Walsh Avenue, Suite 210
Santa Clara, CA 95050
Telephone: 408-899-4443
(Address and telephone number of principal executive offices)

Branislav Vajdic
Chief Executive Officer
HeartBeam, Inc.
2118 Walsh Avenue, Suite 210
Santa Clara, CA 95050
Telephone: 408-899-4443
(Name, address and telephone number of agent for service)

Copies to:

Joseph M. Lucosky, Esq. **Soyoung Lee, Esq.** **Lucosky Brookman LLP** **101 Wood Avenue South, 5th Floor** **Woodbridge, NJ 08830** **(732) 395-4400**	**Andrew D. Hudders, Esq,** **Carl Vandemark, Esq.** **Golenbock Eiseman Assor Bell & Peskoe, LLP** **711 Third Avenue — 17th Floor** **New York, New York 10017** **(212) 907-7300**

Approximate Date of Commencement of Proposed Sale to the Public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒
	Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act ☐

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state or jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 30, 2022

PRELIMINARY PROSPECTUS

HeartBeam, Inc.

Shares of Common Stock

We are offering up to shares of common stock, par value .0001 (the "Common Stock") of HeartBeam, Inc. (the "Company" or "HeartBeam") at a public offering price of $ per share. This is a "best efforts" minimum $____/$20,000,000 maximum offering. This offering will terminate on _____, 2022 (the "Initial Offering Termination Date"), which date may be extended to a date up to and including _____, 2023 (the "Offering Termination Date"), unless we sell the maximum amount of Common Stock before that date or we decide to terminate this offering, which we may do at any time in our discretion prior to the Offering Termination Date. Once we satisfy the Minimum Stock Sale (as defined below), the deposited investor funds will be released to us. In the event we decide to extend the offering period beyond the Initial Offering Termination Date we will seek reconfirmations from investors who have deposited funds into the escrow account and all funds deposited by investors who do not reconfirm will be promptly returned without interest or offset. In the event we do not sell a minimum of $__,000,000 of Common Stock (the "Minimum Stock Sale") by the Offering Termination Date, all funds received will be promptly returned 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"). 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.

Public Ventures, LLC (the "placement agent") is the placement agent we have engaged to conduct this offering on a commercially reasonable "best efforts" minimum $ ___/maximum $20,000,000 offering. 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 can 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 [_____ Bank], 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 13 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	$	$
Placement Agent fees	$	$
Proceeds to HeartBeam, Inc. before expenses	$	$

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 , 2022, subject to satisfaction of certain customary closing conditions.

PUBLIC VENTURES, LLC

The date of this prospectus , 2022.

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.

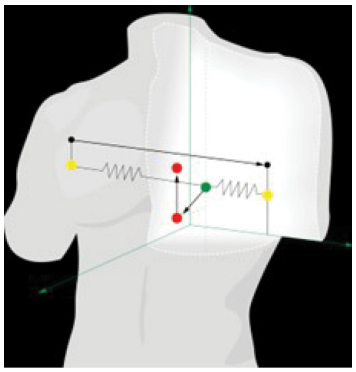
Overview

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 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 vector electrocardiography technology is capable of developing three-dimensional (3D) images of cardiac electrical activity by displaying the spatial locations of ECG waveforms that has demonstrated in early studies to deliver equal or superior diagnostic capability than traditional hospital based ECG systems.



3D projections of cardiac vectors

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

We believe our Products and services will benefit many stakeholders, including patients, healthcare providers, and healthcare payors. We are developing Generation 1 of our telehealth product ("HeartBeam AIMIGo™" or "AIMIGo"), to address the rapidly growing field of RPM. AIMIGo is comprised of a credit card sized electrocardiogram device and a powerful cloud-based diagnostic expert software system. We believe that we are uniquely positioned to play a central role in remote monitoring of high-risk coronary artery disease patients, because the initial studies have shown that our ischemia detection system may be more accurate than existing RPM solutions.

Photographs of Version 1 AIMIGo devices in planar and ready to use position.

We are also applying our software platform to create a tool for detecting heart attacks in the emergency room environment using traditional ECG devices. The software tool, ("HeartBeam AIMI™") is designed to enable emergency physicians to more accurately and quickly diagnose heart attacks than currently available. Market release of this Product will precede that of AIMIGo.

To date, we have developed working prototypes for both 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. We believe we are on track for FDA clearance this quarter.

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 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.

Recent Developments not Incorporated by Reference

In September 2022, we were granted two patents;

- We were granted a 12-lead ECG patch monitor intended for detection of acute coronary syndrome ("ACS") and cardiac arrhythmia by the United States Patent and Trademark Office. The innovation builds on our growing intellectual property portfolio enabling synthesized 12-lead ECG diagnostics outside of a medical setting.
- We were also granted a patent that enables generation of a synthesized 12-lead ECG by the AIMIGo credit card-sized device by the United States Patent and Trademark Office. The innovation opens the pathway for a patient to record a set of signals using AIMIGo outside of a medical setting with a diagnostic synthesized 12-lead ECG immediately transmitted to a physician for review and diagnosis. Unlike single-lead ECG products currently in the marketplace, such as other credit card sized devices or smartwatches, our technology is intended to quickly and accurately help a physician identify a heart attack ("Myocardial Infarction" or "MI").

In October 2022, we announced the expansion of our product pipeline with smartwatch connectivity enablement for 24/7 heart monitoring capability. The product pipeline advancement allows for the addition of arrhythmia detection capabilities to address the multibillion-dollar global market for atrial fibrillation and other arrhythmia monitoring. This capability builds on our recently issued patents. This broader product portfolio enables the following:

- Introducing a 3-lead 3D vector electrocardiogram 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 Q4 2022.
- Leveraging recently issued patents to incorporate both synthesized baseline and symptomatic 12-lead signals for enhanced diagnostic accuracy as well as the addition of atrial fibrillation detection capability in the AIMIGo 12L device for FDA 510(K) submission in Q2 2023.
- Broadening of the product portfolio profile to enable smartwatch connectivity to our platform in future products as an optional monitoring solution for the clinician and the patient.

In October 2022, we announced the appointment of Peter J. Fitzgerald, MD, Ph. D, as Chief Medical Officer. Dr. Fitzgerald is the Director of the Center for Cardiovascular Technology and Director of the Cardiovascular Core Analysis Laboratory at Stanford University Medical School. In addition to his world-renowned expertise in interventional cardiology, Dr. Fitzgerald is an accomplished inventor, entrepreneur, and investment fund founder.

In November 2022, we announced that our patent for a 12-lead ECG smartwatch-based monitor intended for detection of heart attacks and complex cardiac arrhythmias was allowed by the United States Patent and Trademark Office. The innovation builds on our growing intellectual property portfolio enabling 12-lead ECG diagnostics outside of a medical setting.

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 opportunities for consumers to engage with clinicians and better self-manage their care, using readily available consumer technologies to deliver patient care outside of the hospital or doctor’s office. The types of companies that make up this market include Accenture, IBM, SAP, GE Healthcare, Oracle, Microsoft, Airstrip Technology, Medtronic, Allscripts, Boston Scientific, Athenahealth, Cerner, Philips, Agamatrix, Qualcomm, and AliveCor.

The market for 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.

Our initial telemedicine technology Product will address the heart attack detection market as well as the market to monitor coronary artery disease (“CAD”) patients who are typically at high risk for a heart attack. Currently there are no products on the market that are user friendly, easy to carry, and always with the patient in order to provide physicians and patients with timely and highly accurate information about potential ACS and MI 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 18 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 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 better 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 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 was submitted for review on August 15, 2022 to the FDA. We believe this Product will offer a marked increase in the accuracy of heart attack detection in EDs. There are approximately 5,000 ED 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 (3 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 high-risk cardiovascular patients (AIMIGo) and a powerful cloud-based diagnostic expert and MI detection system 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 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, with help from their physicians, to assess whether their chest pain is truly the result of an MI.

Our telehealth 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. The 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 app 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 derived baseline ECG recording. In addition, the patient provides input on their symptoms that are 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 AIMIGo system consists of:

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 app has several functions: guiding the patient through the signal collection, asking about symptoms, displaying the status of the data collection, and notifying the patient of the plan of action as determined by a physician. In addition, the app 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) 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 AIMIGo product in a sequential manner. In order 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 relevant information for the physician to analyze: diagnostic suggestion, patient history, symptoms, baseline and current readings, 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.

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

The generation 1 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 the fourth quarter of 2022.

The generation 2 Product 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 AIMIGo device and a symptoms report. It leverages recently issued patents for enhanced diagnostic accuracy of the synthesized 12-lead ECG waveforms. The generation 2 Product is planned to offer an automated atrial fibrillation detection algorithm. This product is an excellent match for existing CPT RPM reimbursement codes. The 510(K) submission to the FDA is planned for the second quarter of 2023.

The generation 3 Product will feature our proprietary MI marker as well as our diagnostic suggestion in addition to all features of the earlier generation Products. Since generation 3 will offer increased medical value, we plan to seek a unique reimbursement code for this product.

The same core technology 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 chest pain ECG that is being evaluated. It converts them to a VECG representation and utilizes our proprietary 3D VECG differential marker. An initial clinical study indicates that the ED software Product offers considerable improvement in the accuracy of MI detection compared to a panel of experienced cardiologists interpreting a standard 12 lead ECG. 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.

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 121.5 million adults living with cardiovascular disease and 18.3 million adults with diagnosed coronary artery disease. 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 Emergency Room with chest pain are not experiencing an MI. Chest pain is the second most common reason for an ED visit, 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 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 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 always near the patient and ready to be used for recording a cardiac event. It enables 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.

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 (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 AIMIGo.

For 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 long-term strategy is to generate sufficient evidence of clinical efficacy and cost-effectiveness to generate reimbursement coverage and payment specifically for the HeartBeam telehealth Generation 2 solution. We expect to be able to demonstrate significant clinical benefits for patients and savings to the health care system, justifying reimbursement levels well in excess of the amount paid through the RPM pathway.

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.

Clinical Data

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

In the first study (HeartBeam Ischemia Detection Study — HIDES), we collected electrical signal data on patients whose coronary arteries were occluded during a Percutaneous Coronary Intervention (PCI), using simultaneously a traditional 12-lead ECG and our vector signal based device. Our VECG-based signal interpretation system had significantly (21%) higher accuracy in detecting ischemia as more fully discussed in the Business Section.

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 innovations are protected with our patent portfolio and our goal is to become a leader in the ambulatory VECG sector. For a limited number of aspects of our proprietary technology we rely on trade secret protection. It is our view that the combination of these two methods of intellectual property protection maximizes our chances for success.

The issued and pending U.S. patent applications cover compact VECG systems for remote detection and/or diagnosis of AMI. The pending EU and 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.

HeartBeam has five issued U.S. patents (U.S.10,433,744, U.S.10,117,592, U.S.11,071,490, U.S.11,419,538 and U.S. 11,445,963), and seven pending U.S applications. Five 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 two pending PCT applications. The issued patents are predicted to expire between April 11, 2036 and October 5, 2041.

Research and Development

The primary objective of our research and development program is to provide innovative ambulatory VECG, user friendly 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 that provides assistance to 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.

In the third quarter of 2022 we added 3 development engineers led by our recently hired Chief Technology Officer Ken 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 that is a 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 enormous 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 13 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, minimum $____ / maximum $20,000,000" offering. If we do not raise the minimum amount, this offering will not proceed. Even if we raise the minimum amount, it may not be enough to properly fund the current financial requirements of the Company.

THE OFFERING

Securities offered by us	Up to shares of Common Stock at $ per share on a commercially reasonable best efforts basis.
Shares of Common Stock outstanding before this offering[1]	8,000,870 shares.
Shares of Common Stock to be outstanding after this offering[1]	shares if the minimum offering amount is sold in the offering and _____ shares if the maximum offering amount is sold.
Use of Proceeds	We estimate that the net proceeds from this offering will be approximately $, 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, as a portion of its compensation payable in connection with 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 intends 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 13 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 September 30, 2022 and excludes the following:

- 2,101,921 shares of Common Stock issuable upon the exercise of outstanding stock options having a weighted average exercise price of $1.69 per share;
- 257,720 shares of Common Stock issuable upon vesting;
- 3,908,276 shares of Common Stock issuable upon the exercise of outstanding warrants having a weighted average exercise price of $5.43 per share;
- 847,364 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 not subject to any form of lock-up and may enter into other transactions for the sale of securities such as equity support offerings and at-the-market offerings, and we will be 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, 2021 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. Securities and industry analysts do not currently, and may never, publish research on our Company. If no securities or industry analysts commence coverage of our Company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, 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 September 30, 2022, there are outstanding 8,000,870 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 depending 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.

While the proceeds derived from the sale of the shares in this offering, according to our plans, will be enough to fund commercialization of the ED Product, they will not provide us with sufficient working capital to fund commercialization of our telehealth Product. There are no commitments for future financing of the commercial phase of our telehealth Product and other future products. Though we believe a successful ED Product introduction will be a significant value creation event for us, our securities may be offered to other investors at a price lower than the price per share offered to the investors in the offering, or upon terms which may be deemed more favorable than offered hereunder. In addition, the issuance of securities in this offering as well as any future financing using our securities may dilute an investor's equity ownership. Moreover, we may issue derivative securities, including options and/or warrants, from time to time, 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 rules that regulate broker-dealer practices in connection with transactions in penny stocks. Penny stocks are generally equity securities with a price of less than $5.00, other than securities registered on certain national securities exchanges or authorized for quotation on certain automated quotation systems, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system. If the price of our Common Stock is less than $5.00, our Common Stock will be deemed a penny stock. The penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document containing specified information. In addition, the penny stock rules require that before effecting any transaction in a penny stock not otherwise exempt from those rules, a broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive (i) the purchaser's written acknowledgment of the receipt of a risk disclosure statement; (ii) a written agreement to transactions involving penny stocks; and (iii) a signed and dated copy of a written suitability statement. These disclosure requirements may have the effect of reducing the trading activity in the secondary market for our Common Stock, and therefore shareholders may have difficulty selling their shares.

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.

Upon completion of this offering, we intend to obtain a policy of directors' and officers' liability insurance.

We plan to enter 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.

Insofar 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 will be 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 control 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 disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we will file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms. Our management has deemed certain conditions to be material weaknesses and significant deficiencies in our internal controls. For example, we failed to employ a sufficient number of staff to maintain optimal segregation of duties and to provide optimal levels of oversight. 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.

Our current controls and any new controls that we develop may become inadequate because of changes in conditions in our business, including increased complexity resulting from our international expansion. 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.

We are not currently required to comply with the SEC rules that implement Section 404 of the Sarbanes-Oxley Act, and are therefore not required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. As a public company, we will be required to provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report on Form 10-K. 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. 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 September 30, 2022 we have 8,000,870 shares of our Common Stock outstanding. Upon consummation of this offering we have agreed to issue up to shares of our Common Stock, assuming the full amount of the shares being offered are sold. 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 1,900,000 shares, as of September 30, 2022, 847,364 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.

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 shares of Common Stock by us in this offering at an assumed public offering price of $ 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, minimum $____ / maximum $20,000,000" offering. If we do not raise the minimum amount, this offering will not proceed. Even if we raise the minimum amount, it 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, on a minimum $___ / maximum $20,000,000 basis, 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. The minimum amount of securities required to be sold so that we may close the offering is _____ shares of Common Stock. If we do not raise the minimum amount this offering will not proceed. Even if we raise the minimum amount, it may not be enough to properly fund our current financial requirements.

Subscriptions by investors are irrevocable during the offering period.

Investors will make their subscriptions during the offering period that will end on ____, 2022, unless extended to a date not later than ___, 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 or the offering is terminated because the minimum amount is not achieved. 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 the minimum amount of the shares in this offering, we estimate that the net proceeds will be $____, and assuming the sale of the maximum amount of the shares in this offering, we estimate that the net proceeds will be $_____. "Net proceeds" is what we expect to receive after deducting the placement agent fees and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering to conduct operations, increase marketing efforts, and investments in the our existing business initiatives and products, as well as general working capital. Assuming the sale of the minimum amount of the shares in this offering, we anticipate budgeting approximately $ million and assuming the sale of the maximum amount of the shares in this offering, we anticipate budgeting approximately $ 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 $ million assuming the sale of the minimum amount of shares sold in this offering, and approximately $ million assuming the sale of the maximum amount of shares sold in this offering, to fund our commercialization of HeartBeam AIMI;
- We anticipate budgeting approximately $ million assuming the sale of the minimum amount of shares sold in this offering, and approximately $ million assuming the sale of the maximum amount of shares sold in this offering, to fund engineering and regulatory work for 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 $ million, if we raise the minimum amount of shares in this offering, or approximately $ million, if we raise the maximum amount of shares in this offering, for commercialization of 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 the our Common Stock as of , 2022, was approximately $ or $ 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 the minimum and maximum amount of shares of Common Stock offered in this offering at an assumed public offering price of $ per share after deducting estimated placement agent fees and our estimated offering expenses, and after our pro forma as adjusted net tangible book value as of , 2022 would have been $ or $ per share, in the case of the minimum amount of shares of Common Stock sold in this offering and $ or $ per share in the case of the maximum amount of shares of Common Stock sold in this offering. This represents an immediate increase in net tangible book value of $ per share, in the case of the minimum amount of shares of Common Stock sold in this offering and $ per share in the case of the maximum amount of shares of Common Stock sold in this offering, to the existing stockholders, and an immediate dilution in net tangible book value of $ per share to new investors, in the case of the minimum amount of shares of Common Stock sold in this offering and $ per share to new investors in the case of the maximum amount of shares of Common Stock sold in this offering.

The following table illustrates this per share dilution in the case of the minimum amount and maximum number of shares of Common Stock sold in this offering:

	Minimum amount of shares of Common Stock in this offering	Maximum amount of shares of Common Stock in this offering
Assumed public offering price per share	$	
Historical net tangible book value (deficit) per share as of	$ ( )	
Pro forma historical net tangible book value (deficit) per share as of attributable to the pro forma transaction described above	$ ( )	
Increase in pro forma net tangible book value per share as of attributable to the pro forma transactions described above	$	
Pro forma net tangible book value per share as of	$	
Dilution per share to new investors in this offering	$	

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 $ increase (decrease) in the assumed public offering price of $ per share would increase (decrease) the pro forma as adjusted net tangible book value by $ per share and increase the dilution to new investors by $ per share and decrease the dilution to new investors by $ 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 it is offering. An increase of shares offered by it would increase the pro forma as adjusted net tangible book value by $ per share and decrease the dilution to new investors by $ per share, assuming the assumed public offering price of $ per share remains the same and after deducting the estimated placement agent fees and estimated expenses payable by us. Similarly, a decrease of shares offered by us would decrease the pro forma as adjusted net tangible book value by $ per share and increase the dilution to new investors by $ per share, assuming the assumed public offering price of $[*] 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 8,000,870 shares of Common Stock issued and outstanding as of September 30, 2022, and excludes the following:

- 2,101,921 shares of Common Stock issuable upon the exercise of outstanding stock options having a weighted average exercise price of $1.69 per share;
- 3,908,276 shares of Common Stock issuable upon the exercise of outstanding warrants having a weighted average exercise price of $5.43 per share;
- 847,364 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 the our Common Stock, beneficially owned as of September 30, 2022 (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 8,000,870 shares of Common Stock issued and outstanding as of September 30, 2022. 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 September 30, 2022 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 8,000,870 shares of Common Stock outstanding at September 30, 2022, plus the number of shares of Common Stock that such person or group had the right to acquire on or within 60 days after September 30, 2022. 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]	154,056	1.90%
Branislav Vajdic. PhD[2]	950,922	11.83%
George A. de Urioste[3]	13,753	*
Marga Ortigas-Wedekind[4]	52,181	*
Willem Pieter Elfrink[5]	514,227	6.36%
Richard Brounstein[6]	127,619	1.59%
Jon Hunt, PhD[7]	49,351	*
Kenneth Persen	—	—%
All directors and executive officers as a group (8 persons)	1,862,110	23.12%
Ionic Ventures,[8] 3053 Fillmore Street, Suite 256 San Francisco, CA 94123	813,522	9.67%
Bosko Bojovic[9] Alekse Nenadovica, 18 11000 Belgrade Serbia	517,272	6.46%

* Less than 1 percent ownership

(1) Includes (i) 65,653 shares acquired from the conversion of 2015 Convertible Notes and (ii) 88,403 options exercisable within 60 days after September 30, 2022. Does not include 120,687 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) 35,000 BEATW exercisable warrants and (iv) 5,818 four-year warrants acquired as a result of a short-term loan investment program. Does not include 359,000 unvested stock options.

(3) Includes 13,753 options exercisable within 60 days after September 30, 2022. Does not include 30,247 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) 26,357 options exercisable within 60 days after September 30, 2022. Does not include 17,278 unvested stock options and 55,147 unvested RSUs.

(5) Includes (i) 101,818 shares acquired under the 2015 Incentive Plan (ii) 332,407 shares acquired from the conversion of 2015 Convertible Notes, (iii) 16,362 options exercisable within 60 days after September 30, 2022, (iv) 60,000 BEATW exercisable warrants and (v) 3,640 four-year warrants acquired as a result of a short-term loan investment program. Does not include (a) 27,274 unvested stock options, 55,147 unvested RSUs and (b) 43,636 unvested service warrants.

(6) Includes (i) 75,449 shares acquired under the 2015 Incentive Plan, (ii) 5,000 shares and warrants purchased November 11, 2021, (iii) 15,000 BEATW exercisable warrants, (iv) 29,197 shares acquired from the conversion of 2015 Convertible Notes, (v) 1,518 options which vest within 60 days after September 30, 2022, and (vi) 1,455 four-year warrants acquired as a result of a short-term loan investment program. Does not include 80,759 unvested stock options.

(7) Includes (i) 23,976 shares acquired from the conversion of the 2015 Convertible Notes and (ii) 25,375 options exercisable within 60 days after September 30, 2022. Does not include 133,625 unvested stock options.

(8) Ionic Ventures is the beneficial owner and has the power to dispose and vote the shares beneficially owned, which power may be exercised by its managers, Mr. O' Neil and Mr. Coulston, and includes (i) 403,522 shares purchased November 11, 2021 and (ii) 410,000 BEATW exercisable warrants.

(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, minimum $____ /maximum $20,000,000 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 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" minimum/maximum offering, there can be no assurance that the offering contemplated hereby will ultimately be consummated. If less than the minimum amount of the offered securities are subscribed for, then we will not proceed with the offering. We also have the right to terminate the offering at any time in its 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 _____, 2022 (the "Initial Offering Termination Date"), which date may be extended to a date up to and including _____, 2023 (the "Offering Termination Date"), unless we sell the maximum amount of Common Stock before that date or we decide to terminate this offering prior to the Offering Termination Date. In the event we decide to extend the offering period beyond the Initial Offering Termination Date we will seek reconfirmations from investors who have deposited funds into the escrow account and all funds deposited by investors who do not reconfirm will be promptly returned by the escrow agent without interest or offset. Once we satisfy the minimum stock sale, the deposited investor funds will be released to us. 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 7.0% of the aggregate gross proceeds of this offering. We will also pay Public Ventures an accountable expense allowance not to exceed 1.5% of the aggregate gross proceeds of this offering. Excluding the placement agent fees and expenses, we estimate the total offering expenses of this offering that will be payable by us will be approximately $____,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 the purchase of the minimum amount offered hereby and assuming the purchase of the maximum amount offered hereby, in each case, at the public offering price of $____ per share of Common Stock:

Placement Agent Cash Fees per share of Common Stock	$
Total Cash Fees to be Paid to Placement Agent on Minimum Amount	$
Total Cash Fees to be Paid to Placement Agent on Maximum Amount	$

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 $ 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 contain cashless exercise provisions, representations and warranties normal and customary for warrants issued to placement agents, registration rights, and will not be callable or terminable prior to the expiration date. The Placement Agent Warrants will be subject to any limitation imposed by FINRA regulations in respect of a public offering, including not being transferrable for six months after the effective date of the Registration Statement of which this prospectus is a part, except to other FINRA members.

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 _____, 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 "_____, as Escrow Agent for _____." 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 less than the minimum amount is subscribed, then 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. The fee of the Escrow Agent is $_____.

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 not subject to any form of lock-up and may enter into other transactions for the sale of securities such as equity support offerings and at-the-market offerings, and we will be 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.

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 September 30, 2022, the Company had 8,000,870 outstanding shares of Common Stock held by approximately 65 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 the 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, the 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 September 30, 2022, there were 847,364 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.

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 of HeartBeam, Inc. as of December 31, 2021 and 2020 and for each of the years in the two year period ended December 31, 2021 have been included in this Registration Statement and have been so included in reliance on the report of Friedman LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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, 2021, filed with the SEC on March 24, 2022;
- our Quarterly Reports on Form 10-Q for the quarter ended March 31, 2022, filed with the SEC on May 12, 2022, for the quarter ended June 30, 2022, filed with the SEC on August 11, 2022 and for the quarter ended September 30, 2022, filed with the SEC on November 10, 2022;
- our Current Reports on Form 8-K filed with the SEC on February 2, 2022, February 22, 2022, March 10, 2022, June 16, 2022, August 8, 2022, August 12, 2022, September 21, 2022 and November 17, 2022;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2021 from our definitive proxy statement for the annual meeting of stockholders held on June 17, 2022, filed with the SEC on May 2, 2022;
- our proxy statement for the special meeting of stockholders to be held on November 14, 2022, filed with the SEC on October 11, 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

HEARTBEAM, INC.

PROSPECTUS

PUBLIC VENTURES, LLC

, 2022

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the expenses in connection with this registration statement. All of such expenses are estimates, other than the filing fees payable to the Securities and Exchange Commission and to FINRA.

	Amount to be paid
SEC registration fee	$
FINRA filing fee	$
Accounting fees and expenses	$
Legal fees and expenses	$
Printing and engraving expenses	$
Miscellaneous	$
Total	$

All amounts are estimated except the SEC registration fee, the FINRA filing fee, and The Nasdaq Capital Market initial listing fee.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

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 caused to believe that his conduct was unlawful. The Company may by action of its 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.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

The following sets forth information regarding all unregistered securities sold by the registrant in the three years preceding the date of this registration statement;

1. On November 11, 2021 the Company issued 1,497,216 shares of Common Stock from the conversion of the 2015 Notes.
2. On November 15, 2021, in connection with the IPO, the Company issued 192,500 warrants (the "Underwriter Warrants") to purchase Common Stock as compensation to the Underwriter, exercisable at a per share exercise price equal to $7.50 per share. The Underwriter Warrants will expire five years from the date of issuance and are subject to a 180-day lock-up period
3. On January 14, 2022, the Company issued 78,025 shares of Common Stock to a consulting firm for services that were related to the IPO.
4. On February 18, 2022, the Company entered into a stock purchase agreement pursuant to which the Company agreed to issue and sell to OpenSky Opportunities Fund Ltd. an aggregate of 58,000 units, with each unit consisting of one share of Common Stock and Warrants to purchase one share of Common Stock at a combined price of $6.00 per Unit. The Warrants have an exercise price of $6.00 per share and will expire five years from the date of issuance and are subject to a 180-day lock-up period.

These issuances were made in reliance on an exemption from registration set forth in Section 4(a)(2) of the Securities Act, as transactions by an issuer not involving a public offering.

ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, if the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes to provide to the underwriter at the closing specified in the underwriting agreements certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

ITEM 16. Exhibits.

The following exhibits are filed as part of this registration statement:

Exhibit Number	Exhibit Description	Incorporated by Reference		Filed or Furnished	
		Form	Exhibit	Filing Date	Herewith
1.1+	Form of Placement Agent Agreement				
3.1	Articles of Incorporation filed with the State of Delaware on June 11, 2015.	S-1	3.1	09/07/2021	
3.2	Bylaws	S-1	3.2	09/07/2021	
3.3	Amendment to Articles of Incorporation filed with the State of Delaware on September 27, 2021.	S-1/A	3.3	10/04/2021	
3.4	Second Amended and Restated Articles of Incorporation dated November 15, 2022.	8-K	3.1	11/17/2022	
4.13+	Form of Placement Agent's Warrant				
5.1+	Opinion of Lucosky Brookman LLP				
10.1	Employment Agreement with Branislav Vajdic	S-1/A	10.1	10/04/2021	
10.2	Employment Agreement with Richard Brounstein	S-1/A	10.2	10/04/2021	
10.3	Employment Agreement with Jon Hunt	S-1/A	10.3	10/04/2021	
10.4	Employment Agreement with Ken Persen, dated August 2, 2022	8-K	10.2	08/08/2022	
10.5	Supplemental Agreement between HeartBeam, Inc. and LIVMOR, Inc. dated August 2, 2022	8-K	10.1	08/08/2022	
10.6	2022 Equity Incentive Plan	8-K	10.1	06/16/2022	
10.7	Form of Professional Services Agreement between Triple Ring and HeartBeam, Inc. dated March 7, 2022	8-K	10.1	03/10/2022	
10.8	Stock Purchase Agreement, dated February 18, 2022 by and between HeartBeam, Inc. and the Purchaser with the Form of Warrant	8-K	10.1	02/22/2022	
10.9	Partnership Agreement between HeartBeam, Inc. and LIVMOR, Inc. dated January 31, 2022	8-K	10.1	02/02/2022	
10.10+	Form of Lock-Up Agreement				
10.11+	Form of Subscription Agreement in the offering				
10.12+	Form of Escrow Agreement for the offering				
23.1+	Consent of Friedman LLP				
23.2+	Consent of Lucosky Brookman LLP (included as Exhibit 5.1)				
24+	Power of Attorney (included in the signature page of this Registration Statement)				
107+	Filing Fee Table				

+ To be filed by amendment.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Santa Clara, State of California, on the th day of November 2022.

HEARTBEAM, INC.	
By:	
Name:	Branislav Vajdic
Title:	Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Branislav Vajdic and Richard Brounstein, and each of them, as his true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him and in his name, place or stead, in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this registration statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act of 1933, as amended, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their, his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
	Chief Executive Officer and Director (Principal Executive Officer)	, 2022
	Chief Financial Officer (Principal Financial and Accounting Officer)	, 2022
	Executive Chairman of the Board of Directors	, 2022
	Director	, 2022
	Director	, 2022
	Director	, 2022