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

FORM 10-K

☒ **ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2023

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

Commission File Number 000-51470

AtriCure, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**34-1940305**
State or other jurisdiction of incorporation or organization	(I.R.S. Employer Identification Number)
7555 Innovation Way, Mason, OH	**45040**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number including area code: (513) 755-4100
Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $.001 par value	ATRC	NASDAQ Global Market

Securities Registered Pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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 definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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 13(a) of the Exchange Act: ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that are required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The aggregate market value of the voting Common Stock held by non-affiliates of the registrant, based upon the closing sale price of the Common Stock on June 30, 2023, the last business day of the registrant's most recently completed second fiscal quarter as reported on the NASDAQ Global Market, was approximately $2,276.4 million.

Class	**Outstanding February 13, 2024**
Common Stock, $.001 par value	47,587,966

DOCUMENTS INCORPORATED BY REFERENCE

Items 10, 11, 12, 13 and 14 of Part III of this Form 10-K incorporate information by reference from the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year covered by this Form 10-K.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Form 10-K, including the sections titled "Management's Discussion and Analysis of Financial Condition and Results of Operations", "Risk Factors" and "Quantitative and Qualitative Disclosures about Market Risk" contains forward-looking statements regarding our future performance. All forward-looking information is inherently uncertain and actual results may differ materially from assumptions, estimates or expectations reflected or contained in the forward-looking statements as a result of various factors, including those set forth under "Risk Factors" and elsewhere in this Form 10-K. There may be additional risks of which we are not presently aware or that we currently believe are immaterial which could have an adverse impact on our business. Forward-looking statements often address our expected future business, financial performance, financial condition and results of operations, and often contain words such as "intends," "estimates," "anticipates," "hopes," "projects," "plans," "expects," "drives," "seek," "believes," "see," "focus," "should," "will," "would," "opportunity," "outlook," "could," "can," "may," "future," "predicts," "target," "potential," "forecast," "trend," "might" and similar expressions and the negative versions of those words, and may be identified by the context in which they are used. However, the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements include, without limitation, statements that address activities, events, circumstances or developments that AtriCure expects, believes or anticipates will or may occur in the future, such as earnings estimates (including projections and guidance), other predictions of financial performance, launches by AtriCure of new products, developments with competitors and market acceptance of AtriCure's products. Such statements are based largely upon current expectations of AtriCure. Any forward-looking statement speaks only as of the date made. Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from those expressed or implied. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. In other words, these statements are not guarantees of future performance and inherently involve a wide range of risks and uncertainties that are difficult to predict. With respect to the forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date of this Form 10-K. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise unless required by law.

WEBSITE AND SOCIAL MEDIA DISCLOSURE

We use our website (www.atricure.com) and our corporate Facebook, Instagram, YouTube, LinkedIn and X (formerly known as Twitter) accounts as channels of distribution of company information. The information we post through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following our press releases, Securities and Exchange Commission, or SEC, filings and public conference calls and webcasts. The contents of our website and social media channels are not, however, a part of this report.

TRADEMARKS

We own or have the rights to use various trademarks referred to in this Annual Report on Form 10-K, including Isolator® Synergy ™ clamp, EPi-Sense® coagulation device, ENCOMPASS®, AtriClip® Flex·V®, and cryoSPHERE® probe, among others, and their respective logos. Solely for convenience, we may refer to trademarks in this Annual Report on Form 10-K without the ™ and ® symbols. Such references are not intended to indicate, in any way, that we will not assert, to the fullest extent permitted by law, our rights to our trademarks.

MARKET AND INDUSTRY INFORMATION

Market data used throughout this Annual Report on Form 10-K is based on management's knowledge of the industry and good faith estimates of management. All of management's estimates presented herein are based on industry sources, including analyst reports and management's knowledge. We also relied, to the extent available, upon management's review of independent industry surveys and publications prepared by a number of sources and other publicly available information. We are responsible for all of the disclosures in this Annual Report on Form 10-K, and while we believe that each of the publications, studies and surveys used throughout this Annual Report on Form 10-K are prepared by reputable sources, we have not independently verified market and industry data from third-party sources.

All of the market data used in this Annual Report on Form 10-K involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe the estimated market position, market opportunity and market size information included in this Annual Report on Form 10-K is generally reliable, such information, which in part is derived from management's estimates and beliefs, is inherently uncertain and imprecise and

has not been verified by any independent source. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Item 1A. Risk Factors” of Part I of this Annual Report on Form 10-K and elsewhere in this Annual Report on Form 10-K. These and other factors could cause results to differ materially from those expressed in our estimates and beliefs and in the estimates prepared by independent parties.

PART I

(Dollar and share amounts referenced in this Part I are in thousands.)

ITEM 1. BUSINESS

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib), left atrial appendage (LAA) management and post-operative pain management. Afib is an irregular heartbeat, or arrhythmia, which affects over 37 million people worldwide, including more than eight million people in the United States, and is a growing epidemic. It is the most common cardiac arrhythmia encountered in clinical practice and results in high utilization of healthcare services and significant cost burden. Patients often progress from being in Afib intermittently (paroxysmal) to being in Afib continuously. The continuous Afib patient population includes early persistent Afib, which lasts seven days to 6 months, persistent Afib, which lasts 6 months to one year, and long-standing persistent Afib, which lasts longer than one year. It is estimated that over 3.5 million people in the United States currently suffer from long-standing persistent Afib. Afib often occurs in conjunction with other cardiovascular diseases, including hypertension, congestive heart failure, left ventricular dysfunction, coronary artery disease and valvular disease.

Our cardiac ablation and left atrial appendage management (LAAM) products are used by physicians during open-heart and minimally invasive surgical procedures. In open-heart procedures, the physician is performing heart surgery for other conditions, such as a mitral valve repair or a coronary artery bypass, and our products are used in conjunction with ("concomitant" to) such a procedure. Minimally invasive procedures are performed on a standalone basis, and often include multi-disciplinary or "hybrid" approaches, combining surgical procedures using AtriCure ablation and AtriCure LAAM products with catheter ablation performed by an electrophysiologist.

Our pain management solutions are used by physicians to freeze nerves during cardiothoracic or thoracic surgical procedures. Recovery from cardiothoracic and thoracic surgery can be complicated and painful. Many surgeons use multi-modal pain management strategies that include oral delivery of opioid and non-opioid pain medications. Our cryoICE cryoSPHERE® probe for pain management (Cryo Nerve Block) provides temporary relief of post-operative pain, allowing the patient's body to heal after surgery while the nerves regenerate and sensation is regained.

We sell our products to medical centers through our direct sales force in the United States, Germany, France, the United Kingdom, the Benelux region, Canada and Australia. We also sell our products through distributors who in turn sell our products to medical centers in other international markets. Our business is primarily transacted in U.S. Dollars; direct sales transactions outside the United States are transacted in Euros, British Pounds, Canadian Dollars or Australian Dollars.

Market Overview

Afib is the most commonly diagnosed sustained cardiac arrhythmia, with over one million diagnoses annually in the United States alone. Afib is an under-diagnosed condition due in large part to the fact that patients with Afib often have mild or no symptoms, and their Afib is diagnosed when they seek treatment for an associated condition, such as a structural heart disease or stroke. Symptoms of Afib may include heart palpitations, dizziness, fatigue and shortness of breath, and these symptoms may be debilitating and life threatening in some cases. When a patient is in Afib, abnormal electrical impulses cause the atria, or upper chambers of the heart, to fibrillate, or beat rapidly, irregularly and in an uncoordinated fashion. As a result, blood in the atria may be in stasis, increasing the risk that a blood clot will form and cause a stroke or other serious complications. In patients with Afib, a significant percentage of those clots can form inside of the LAA. We believe that increasing awareness of Afib and improved diagnostic screening will result in an increased number of patients diagnosed with Afib over time. Also, since the prevalence of Afib increases with age, there will likely be an increase in the number of diagnosed Afib patients globally as the world population ages.

Afib is a condition that doctors often find difficult to treat and, historically, there has been no widely accepted long-term cure for Afib. This difficulty is exacerbated with more serious forms of Afib, or persistent and long-standing persistent Afib. Over the past two decades, technology advancements have made surgical ablation more effective, repeatable and available to cardiac surgeons and electrophysiologists around the world. Societal guideline changes from the Society of Thoracic Surgeons (STS), Heart Rhythm Society (HRS) and American Association of Thoracic Surgery (AATS) now have Class I recommendations for concomitant surgical ablation, meaning that it is a "recommended" treatment for patients who have structural heart disease and Afib. Guidelines for the treatment of more serious forms of Afib for patients without structural heart disease have also been introduced in the past several years. In 2023, the American College of Cardiology (ACC), American Heart Association (AHA), American College of Clinical Pharmacy (ACCP), and HRS released Guidelines for Diagnosis and Management of Atrial Fibrillation, and upgraded Left Atrial Appendage

Management to the highest recommendation of Class 1 and now include Hybrid AF™ Therapy as a Class 2 recommendation. These societal guidelines are reflective of the scientific evidence suggesting that surgical and hybrid ablation is safe and effective for patients who have Afib.

Of the patients undergoing open-heart surgery globally on an annual basis, we estimate that over 300,000 are potential candidates for surgical ablation using our products, as they have pre-operative Afib. Today, we estimate that less than 20% of those candidates are being treated with surgical ablation. In addition, Afib is thought to be responsible for approximately 15% to 20% of the estimated 800,000 strokes that occur annually in the United States. According to the American Heart Association, the risk of stroke is five times higher in people with Afib. Studies have also suggested that 90% of clots that cause strokes in patients who have Afib originate from within the LAA. Recently, a large independent international randomized trial, Left Atrial Appendage Occlusion Study (LAAOS) III, demonstrated a significant reduction in strokes when the LAA was managed during cardiac surgery. Afib accounts for billions of dollars in hospitalization-related and office visit costs in the United States each year. Indirect costs, such as the management of Afib-related strokes, are also believed to be significant. Because of the risk of stroke and the significant cost burden on the healthcare system, more and more surgeons are routinely addressing the LAA, both in patients who have Afib and in those who do not have Afib but may be at increased risk of developing the disease in the future. We believe that our AtriClip system is safer, more effective and easier to use than other products and techniques for excluding the LAA during cardiac surgery. Therefore, we believe that the market for our ablation products and the AtriClip system represent significant growth opportunities.

Many Afib patients without other underlying structural heart disease, especially those with more advanced forms of Afib, are symptomatic and experience conditions such as palpitations, breathlessness and drowsiness. These patients tend to be motivated to seek treatment to alleviate their symptoms. Patients who are symptomatic are often treated by an electrophysiologist using catheter ablation. Catheter ablation is considered a percutaneous procedure that does not require the opening of the chest; rather, catheters are inserted through a small puncture in the groin. In addition to catheter ablation, there are other treatment options for patients with Afib, including pharmacological therapy (anti-arrhythmic drugs) and implantable pacemakers. It is estimated that approximately 350,000 to 450,000 Afib patients are treated by catheter ablation every year in the U.S., a number that is expected to grow 10 to 15% annually. While the majority of paroxysmal Afib patients treated by catheter ablation tend to experience freedom from Afib, less than a third of long-standing persistent patients treated by catheter ablation are cured of their Afib at one year, and it declines even more thereafter. Randomized, prospective, multi-center data from the CONVERGE™ IDE clinical trial, along with a number of other recent real-world studies performed by physician investigators, show that these long-standing persistent Afib patients can experience more than double the success rate by adding an ablation on the outside surface of the heart using AtriCure's EPi-Sense ablation system. Thus, we believe the EPi-Sense ablation system used as a minimally invasive or Hybrid AF™ therapy also represents a significant growth opportunity for the Company.

Thoracic surgery involving an incision through the ribcage, typically referred to as thoracotomy access, and cardiothoracic surgery can often result in significant post-operative pain and longer hospital recovery times as patients refrain from mobilizing their chest near the incision site. It is estimated that each year approximately 150,0000 thoracic procedures and approximately 250,000 cardiothoracic procedures are performed in the United States. Hospital recovery times can vary from two to fifteen days depending on the procedure, operative complications associated with the procedure, pain management protocol and other factors. Most surgeons will employ a multi-modal pain management protocol that includes various pain management techniques, including techniques such as epidural delivery of medication directly around the spinal cord, intravenous or oral delivery of opioid and non-opioid pain medications, or other strategies. More focused, local techniques include syringe injections between vertebrates and Cryo Nerve Block which uses cryothermic energy to ablate peripheral nerves, temporarily stopping the transmission of pain signals coming from the chest wall during surgery. The nerve "scaffolds" remain intact, allowing axons to regenerate and restore nerve function over time. Cryo Nerve Block can be delivered using our cryoICE cryoSPHERE® probe, which is specifically designed for Cryo Nerve Block therapy. Depending on the degree of invasiveness, physicians and their nursing staff will take advantage of multiple ways of managing pain for their patients. In recent years, prescription narcotics, or opioids, have come under heavy scrutiny due to their potential for long-term dependency, overdose and possible death. Both federal and local governments in the United States have proposed and implemented new regulations to curb the opioid overdose epidemic. It is also estimated that one in seven thoracic surgery patients develops an unhealthy post-procedural addiction to prescription narcotics, making alternative, non-opioid pain management modalities, such as Cryo Nerve Block, an increasingly important part of how physicians manage post-operative pain. We believe the market for our pain management ablation product represents a significant growth opportunity. Further, applications for Cryo Nerve Block outside of thoracic surgery use are being studied by physician investigators and represent future possible growth opportunities.

AtriCure Solutions and Products

We believe that we are currently the market leader in the surgical treatment of Afib and left atrial appendage management, and pioneers of the application of Cryo Nerve Block in thoracic procedures. We anticipate that substantially all our revenue for the foreseeable future will relate to products we currently sell or are in the process of developing. Our products enable cardiothoracic surgeons to perform surgical ablation procedures with faster, less invasive and less technically challenging approaches. We have completed, and continue to invest in, clinical studies for the use of our ablation and LAAM products to treat Afib and reduce stroke. Leading cardiothoracic surgeons and electrophysiologists, including those who serve or who have served as consultants to us, have published results of preclinical and clinical studies utilizing our devices. The results of these studies have assessed efficacy, ease of use and safety endpoints.

Products for cardiac tissue ablation include those that create scar tissue using radio frequency (RF) energy or cryothermic modalities. Our ablation products are part of platforms each consisting of disposable hand pieces which connect to either a RF generator or a cryothermic generator. We generally place this capital equipment with our direct customers and sell to our distributors.

Products for open and minimally invasive ablation:

- **Isolator® Synergy™ Clamps.** Our Isolator Synergy Ablation System clamps are single-use disposable RF products with jaws that close in a parallel fashion. We sell multiple configurations of our Isolator Synergy clamps. The various configurations provide the user with options to address patient specific procedure requirements or anatomy; however, all the clamps provide consistent performance using the same core technology. The parallel closure evenly compresses tissue and evacuates the blood and fluids from the energy pathway to make the ablation more effective. The Isolator Synergy Ablation System has been studied in multiple FDA approved clinical trials, including the previously completed ABLATE clinical trial which supported a pre-market approval (PMA) in 2011, as well as the ongoing DEEP AF IDE and HEAL-IST clinical trials.

  Our Isolator Synergy Ablation System includes multiple configurations approved by the United States Food and Drug Administration (FDA) for the treatment of persistent and long-standing persistent Afib concomitant to other open-heart surgical procedures. Certain products of our Isolator Synergy clamps bear the CE mark and may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. These products are available for sale in a number of other countries globally.

  In April 2022, we launched our most recent configuration, the ENCOMPASS® clamp, following 510(k) clearance in July 2021. The ENCOMPASS clamp is indicated for cardiac soft tissue ablation. The configuration is designed to make concomitant surgical ablations more efficient and is expected to drive deeper penetration of cardiac surgery procedures.

- **Multifunctional Pens and Linear Ablation Devices.** These devices are single-use disposable RF products that come in multiple configurations. The MAX Pen devices enable surgeons to evaluate cardiac arrhythmias, perform temporary cardiac pacing, sensing and stimulation and ablate cardiac tissue with the same device. Surgeons can readily toggle back and forth between these functions. The device comes in multiple configurations that have unique tissue contacting and shaft lengths. The Coolrail® device enables the user to make longer linear lines of ablation. Surgeons generally use one or more of our pen and linear devices in combination with Isolator Synergy clamps.

  All our pen and linear ablation devices are cleared for sale in the United States under FDA 510(k) clearances, with indications for the ablation of cardiac tissue and/or the treatment of cardiac arrhythmias. Our Isolator Synergy pens bear the CE mark, and most configurations may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. These products are available for sale in a number of other countries globally.

Products for open ablation:

- **cryoICE Cryoablation System.** The cryoICE cryoablation system is used in both open ablation procedures and cryoanalgesia. The system consists of the cryoICE BOX generator along with a variety of single-use disposable probes. The primary differences between these cryoablation probes is the form of the tissue-contacting distal end. The cryoICE devices enable the user to make linear ablations of varied lengths. Surgeons may utilize the cryoICE devices in combination with Isolator Synergy clamps or independently.

Our cryoablation devices are cleared for sale in the United States under FDA 510(k) clearances, bear the CE mark for commercial distribution throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. These products are available for sale in a number of other countries globally.

The ICE-AFIB clinical trial is studying the safety and efficacy of the cryoICE system for persistent and long-standing persistent Afib treatment during concomitant on-pump cardiac surgery.

Products for minimally invasive ablation:

- **EPi-Sense Systems.** The EPi-Sense Guided Coagulation System with VisiTrax technology and the new EPi-Sense ST® Guided Coagulation System utilize monopolar RF energy for the coagulation of tissue. Our EPi-Sense devices are single-use disposable ablation devices capable of intraoperative cardiac signal sensing and recording when connected to an external recording device.

  Our EPi-Sense® System was studied through the CONVERGE clinical trial and was subsequently approved in 2021 by FDA for the treatment of patients with systemic, drug refractory, long-standing persistent Afib when augmented with an endocardial ablation catheter. Our EPi-Sense ST Guided Coagulation System was approved via PMA supplement in late 2022. Hybrid AF™ Therapy is the only FDA-approved minimally invasive procedure to treat patients with long-standing persistent Afib and represents a proven option for patients with advanced disease.

  The EPi-Sense System bears the CE mark and is commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. This system is available for sale in a number of other countries globally.

Products for pain management:

- **cryoSPHERE probe**. The cryoSPHERE probe is used to apply cryothermic energy to targeted intercostal peripheral nerves in the ribcage in order to provide temporary pain relief. This technique, called Cryo Nerve Block, is applied intraoperatively by cardiothoracic or thoracic surgeons and results in temporary pain relief for up to 90 days after the procedure. Sensation typically returns to the affected region of the chest after this period. Scientific data that has been published on the effects of Cryo Nerve Block has generally shown a significant reduction in prescription of opioids, significantly reduced length of stay for patients in the hospital and other benefits.

  The cryoSPHERE probe is 510(k) cleared for managing pain by temporarily ablating peripheral nerves and bears the CE mark for commercial distribution throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive.

Products for appendage management:

- **AtriClip System**. The AtriClip® LAA Exclusion System includes various combinations of an implantable device (AtriClip) coupled to a single-use disposable applier. The AtriClip device is designed to exclude the left atrial appendage by mechanically clamping the appendage from the outside of the heart. The left atrial appendage has been shown to be a source of arrhythmias. The exclusion of the LAA eliminates blood flow between the left atrial appendage and the atrium while avoiding contact with circulating blood and provides electrical isolation benefits after placement. We believe that the AtriClip system is potentially safer, more effective and easier to use than other techniques for permanently excluding the left atrial appendage. The device comes in two geometries (a rectangular configuration which encircles the targeted tissue and “V” shape which allows for an alternative lateral access) and a variety of lengths, which are matched to each patient's anatomy. The appliers come in multiple forms tailored to specific procedural needs depending on the type of surgery and how the surgeon is accessing the heart.

  In the United States, our AtriClip LAA Exclusion System products are 510(k)-cleared with an indication for the exclusion of the LAA, performed under direct visualization and in conjunction with other cardiac surgical procedures. Direct visualization, in this context, requires that the surgeon can see the heart directly, with or without assistance from a camera, endoscope or other appropriate viewing technologies. Certain products of our AtriClip LAA Exclusion System bear the CE mark for commercial distribution throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. These products are available for sale in a number of other countries globally.

The AtriClip LAA Exclusion System is currently being evaluated under the Left Atrial Appendage Exclusion for Prophylactic Stroke Reduction (LeAAPS™) IDE clinical trial.

We sell additional products and enabling technologies that hold 510(k) approvals and/or bear the CE mark. The LARIAT® System is a solution for soft-tissue closure that includes a suture loop coupled to a single-use disposable applier. The Lumitip™ dissector is used by surgeons to separate tissues to provide access to key anatomical structures that are targeted for ablation. Other enabling technologies include our Glidepath™ guides for placement of our clamps, Subtle™ Cannula's to support access for our EPi-Sense catheters and a line of reusable cardiac surgery instruments.

Business Strategy

We are passionately focused on healing the lives of patients affected by Afib and pain after surgery. Our strategy is to expand the treatment options for patients who suffer from Afib, have a high risk of stroke, or who suffer from post-operative pain, through the continued development of our technologies and expansion of our product offerings, clinical science investments and global commercial expansion. The key elements of our strategy include:

New Product and Procedure Innovation. Our product development pipeline includes projects which extend and improve our existing products, as well as research and development projects for new technologies and new procedural techniques. We plan to continue to develop new and innovative products and procedures, including those that allow us to enter new markets or expand our growth in existing markets.

Investments in Clinical Science. We continue to invest in landmark clinical trials to validate the long-term results of procedures using our products and to support applications to regulatory agencies for expanded indications. We also make clinical research grants to support our product development efforts and expand the body of clinical evidence. We believe publication of additional scientific evidence, in addition to robust ongoing research activities, will ultimately create an increased demand for our products.

Build Physician and Societal Relationships. We have formed consulting relationships with cardiothoracic surgeons, cardiologists, electrophysiologists, stroke neurologists and thoracic surgeons who work with us to develop and evaluate our products. Additionally, we regularly form advisory boards made up of key opinion leaders in multiple specialties to provide input to our training and clinical programs. We are building these relationships along with extended care professionals such as nurse practitioners and advanced practice providers, to provide insight regarding treatment trends, input on future product direction and education for providers involved in treating the disease.

We are partnering with leading surgical and cardiology societies to increase the awareness of Afib treatment options. In the past five years, the Society for Thoracic Surgeons (STS), Heart Rhythm Society (HRS), American College of Cardiology (ACC), American Heart Association (AHA) and American College of Clinical Pharmacy (ACCP) have released new guidelines on the surgical treatment of Afib in both open-heart and minimally-invasive settings.

Provide Training and Education. We have recruited and trained sales and physician education professionals to effectively communicate to our customers the unique features and benefits of our technologies as they relate to their indications for use. Our highly trained professionals meet with physicians at institutions around the world to provide education and technical training on the features, benefits and safe-and-effective use of our products. With the approval of our Isolator Synergy System, we instituted a program to train providers on the use of the Isolator Synergy System to treat persistent and long-standing persistent Afib in patients undergoing open-heart surgery. With the approval of the EPi-Sense System, we began programs to train physicians on the use of the EPi-Sense system in a hybrid approach to treating patients with long-standing persistent Afib. More recently, we have implemented multidisciplinary training programs focused on the heart team approach for creating and growing an arrhythmia treatment program and managing post-operative pain. We believe these training and education programs have increased awareness about the surgical treatment of Afib, and we will continue to make investments to serve our physician customers. As a result of the educational process, we believe that awareness of our technologies is growing and will result in the increased use of our products.

Evaluate Acquisition Opportunities. We expect to continue to be opportunistic with respect to acquisitions. We evaluate acquisition opportunities on a variety of factors, including product innovation, clinical differentiation and other strategic and financial criteria.

Research and Product Development

Our ongoing research and development activities support our business strategy to expand treatment options and increase awareness in our current markets, as well as enabling expansion into adjacent markets. We are engaged in developing and researching new and existing products or concepts, preclinical studies, clinical trials and other regulatory

activities. We make significant investments in both product development and clinical science activities to drive the advancement and adoption of new therapies in the marketplace.

In the United States, a significant risk device requires the prior submission of an application for an Investigational Device Exemption (IDE) to FDA for approval before initiating a clinical trial. Clinical trials are required to support a pre-market approval (PMA) and are sometimes required for 510(k) clearance. Some trials require a feasibility study followed by a pivotal trial. We are conducting several clinical trials to validate the long-term results of procedures using our products and to support applications to regulatory agencies for expanded indications. In addition, we also conduct various studies to gather clinical data regarding our products. Key trials and studies are:

LeAAPS. In April 2022, FDA approved the protocol for the Left Atrial Appendage Exclusion for Prophylactic Stroke Reduction (LeAAPS) IDE clinical trial. The trial is designed to evaluate the effectiveness of prophylactic LAA exclusion using the AtriClip LAA Exclusion System for the prevention of ischemic stroke or systemic arterial embolism in cardiac surgery patients without pre-operative AF diagnosis who are at risk for these events. This prospective, multicenter, randomized trial evaluates safety at 30 days post-procedure to demonstrate no increased risk with LAA exclusion during cardiac surgery and effectiveness with a minimum follow-up of five years post procedure for all subjects. The trial provides for enrollment of up to 6,500 subjects at up to 250 sites worldwide. In January 2023, we enrolled our first patient; site initiation and enrollment is ongoing.

HEAL-IST. In February 2022, FDA approved the protocol for the Hybrid Epicardial and Endocardial Sinus Node Sparing Ablation Therapy for Inappropriate Sinus Tachycardia (IST) clinical trial (HEAL-IST). The HEAL-IST clinical trial is designed to study the safety and efficacy of a hybrid sinus node sparing ablation procedure using the Isolator Synergy Surgical Ablation System for the treatment of symptomatic, drug refractory or drug intolerant IST. The trial is a prospective, multicenter, single arm trial that evaluates safety 30 days post-procedure and evaluates primary effectiveness of freedom from IST (as specified) at 12 months post-procedure. The trial provides for enrollment of up to 142 patients at up to 40 sites in the United States, United Kingdom and European Union. The first patient enrollment in the trial occurred in June 2022; site initiation and enrollment is ongoing.

CONVERGE. The CONVERGE IDE clinical trial proved the safety and efficacy of the EPi-Sense System to treat symptomatic persistent and long-standing persistent Afib patients who are refractory or intolerant to at least one Class I and/or III anti-arrhythmic drug. In April 2021, we announced the PMA approval of the EPi-Sense System for treatment of symptomatic, drug-refractory, long-standing persistent atrial fibrillation, when augmented with an endocardial ablation catheter. We believe the Convergent procedure, or Hybrid AF therapy, provides the only compelling treatment option for a large and vastly underpenetrated population of Afib patients. The CONVERGE trial demonstrated superiority in the hybrid therapy arm compared to endocardial catheter ablation alone. In patients diagnosed with long-standing persistent Afib, the therapy arm showed a 29% absolute difference in efficacy at 12 months (78% relative improvement) and an absolute difference of 35% at 18 months (110% relative improvement). There was also a 33% absolute difference in Afib burden reduction in favor of the Hybrid AF therapy at 12 months, which increased to 37% at 18 months. In April 2021, we also received approval from FDA to conduct the CONVERGE Post Approval Study (PAS). This study allows for 325 patients to be enrolled at up to 50 sites. The first patient enrollment in the trial occurred in June 2022; site initiation and enrollment is ongoing.

We have invested in other clinical trials to validate the long-term results of procedures using our products and to support applications to regulatory agencies for expanded indications. The ICE-AFIB clinical trial is designed to study the safety and efficacy of the cryoICE® system for persistent and long-standing persistent Afib treatment during concomitant on-pump cardiac surgery. The trial provides for enrollment of up to 150 patients at up to 20 sites in the United States, which was completed in May 2023. Patient follow-up for twelve months post ablation required by the study protocol remains ongoing. During the second quarter of 2023, results from our CEASE-AF trial were presented at the European Heart Rhythm Association meeting and subsequently published in July 2023. CEASE-AF is a prospective, multi-center randomized control trial that demonstrated superior freedom from atrial arrhythmias for staged hybrid ablation compared to endocardial catheter ablation. During the fourth quarter of 2023, the 12-month follow-up results of enrolled patients from the DEEP AF Pivotal study were presented at the American Heart Association meeting. The DEEP AF IDE pivotal trial evaluated the safety and efficacy of the AtriCure Bipolar System when used in a staged approach where a minimally invasive surgical ablation procedure is first performed. The patient undergoes the endocardial catheter procedure approximately 91-120 days later. The results from this single arm study demonstrated superior freedom from atrial arrhythmias for staged hybrid ablation compared to a pre-specified performance goal. The Company is in the process of analyzing additional trial data for publication, future development activities, or possible evaluation of label expansions.

Sales, Marketing and Medical Education

Our global sales and marketing efforts focus on educating physicians about our unique technologies and their clinical benefits. We only promote our products for uses described in their labeling as cleared or approved by relevant regulatory agencies, and train our sales force on the use of our products to the extent the products are cleared or approved.

Our sales team in the United States has approximately 290 employees. We select our sales personnel based on their expertise, experience and reputation in the medical device industry and their knowledge of cardiac and thoracic surgery procedures and technologies.

We market and sell our products in selected countries outside of the United States through a combination of independent distributors and direct sales personnel. Our international sales team includes approximately 60 employees focused on our direct markets, such as Germany, France, the United Kingdom, the Benelux region, Canada and Australia. We also maintain a network of distributors who market and sell our products in Asia and South America, as well as certain countries in Europe. We continue to evaluate opportunities for further expansion into markets outside of the United States.

Competition

AtriCure has the only medical devices that are approved by FDA for treating long-standing persistent Afib: the Isolator Synergy Ablation, the first medical device to receive FDA approval for the treatment of persistent Afib in a concomitant setting, and the EPi-Sense System, which received FDA approval for standalone treatment of Afib with Hybrid AF Therapy. However, our industry is competitive, is subject to change and can be significantly affected by new product introductions and other activities of industry participants. We compete with other companies and divisions of companies that sell a single or limited number of competitive product lines or in certain geographies. Our primary competitor in the cardiac surgery market is Medtronic, plc, who provides surgical ablation products and LAAM devices used by physicians for the treatment of Afib and related conditions. For standalone treatment of Afib, several companies offer intracardiac catheter devices that are commonly used by electrophysiologists. These catheter devices are FDA-approved to treat the paroxysmal and persistent forms of Afib, but they are not FDA indicated to treat long-standing persistent Afib. Our Hybrid AF Therapy involves both epicardial and endocardial techniques, therefore, these catheters are complementary to our business and not competitive. We believe that our products improve treatment outcomes for patients with non-paroxysmal forms of Afib when combined with intracardiac catheter devices.

AtriCure is monitoring other companies who are conducting clinical trials that may support FDA approval of their devices to treat persistent and long-standing persistent Afib, although we are not aware of any ongoing FDA trials by other companies to study ablation of long-standing persistent Afib patients. We are aware of other companies developing technology for cardiac tissue ablation and appendage management. New product introductions, technological advances and regulatory clearances from competitors may impact the use of our products in cardiac procedures. In addition to the cardiac surgery market, we also consider competition within the post-operative pain market. Currently, we are not aware of other companies in the United States who are pursuing cryothermic nerve block therapies for thoracic surgery. There are other companies outside of the United States who market their devices for a similar therapy.

Third-Party Reimbursement

Reimbursement for health care services in the United States is generally made by third-party payors. These payors include private insurers and government insurance programs, such as Medicare and Medicaid. The Medicare program, the largest single payor in the United States, is a federal health benefit program administered by the Centers for Medicare and Medicaid Services (CMS) and covers certain medical care items and services for eligible beneficiaries, primarily individuals over 65 years old, as well as chronically disabled individuals. Because Medicare beneficiaries comprise a large percentage of the populations for which our products are used, and private insurers may follow the coverage and payment policies for Medicare, Medicare's coding, coverage and payment policies for cardiothoracic surgical procedures are significant to our business.

Medicare's Part A program pays hospitals for inpatient services, such as cardiothoracic surgery, under the Inpatient Prospective Payment System, which provides a predetermined payment based on the patient's discharge diagnoses and surgical procedure(s). Discharge diagnoses are grouped into Medicare Severity Diagnosis Related Groupings (MS-DRG). There are several cardiac surgery MS-DRGs associated with the surgical treatment of Afib, with and without a concomitant open-heart procedure. When an ablation device and/or LAAM device is used during a concomitant open-heart procedure, Medicare's hospital reimbursement is based upon the patient's primary structural heart surgical procedure. In contrast, sole therapy minimally invasive ablation or surgical LAAM procedures typically are reimbursed under a general cardiac surgery or intracardiac procedure MS-DRG. We believe hospital reimbursement rates for sole therapy and concomitant therapy cardiac surgical ablation or surgical LAAM are adequate to cover the cost of our products even when multiple procedures are performed. Similar to surgical ablation for Afib or surgical LAAM, cryoablation performed for post-operative pain

management is reimbursed as part of the primary procedure, open thoracic or cardiac surgery, MS-DRG. We believe hospital reimbursement rates are typically adequate in these situations.

Physicians are reimbursed for their services separately under the Medicare Part B physician fee schedule. When performing a surgical cardiac ablation with and without a concomitant open-heart procedure, surgeons report Current Procedural Terminology (CPT) codes to receive a professional fee payment. Multiple CPT codes may be reported by a physician during a procedure if multiple procedures are performed. There are category one CPT codes for both concomitant and standalone surgical Afib treatment, as well as surgical LAAM. However, some providers utilize unlisted CPT codes to obtain reimbursement when no appropriate CPT code exists, such as Cryo Nerve Block ablation when used for post operative pain control.

In addition to the Medicare program, many private payors look to CMS policies as a guideline in setting their coverage policies and payment amounts. The current coverage policies of these private payors may differ from the Medicare program, and payment rates may be higher, lower, or the same as the Medicare program. In some cases, certain private payors adopt negative coverage policies with respect to therapies involving our products. We provide private payors information on FDA labels and new published studies to support positive coverage policies. We also engage third-party reimbursement consultants that provide support to our customers in the event of a coverage denial.

Outside of the United States, third-party reimbursement varies widely by geography and by the type of therapy in which our devices are used. For example, even though a new medical device may have been approved for commercial distribution, we may find limited demand for the device until coverage and sufficient reimbursement levels have been obtained from governmental and private third-party payors. In addition, some private third-party payors require that certain procedures or the use of certain products be authorized in advance as a condition of reimbursement. In some countries, cost containment initiatives and health care policies may significantly reduce reimbursement for procedures using our medical devices or deny coverage for those procedures altogether. We are actively working to pursue market access in certain geographies, which includes applying for new reimbursement for therapies in which our devices are being used or pursuing specific reimbursement for utilization of our devices.

Government Regulation

Our products are medical devices and are subject to regulation in the United States by FDA and other federal agencies, and by comparable authorities in the European Union (EU) and other countries worldwide.

US Regulation:

FDA regulations govern nearly all of the activities that we perform, or which are performed on our behalf, to ensure that medical products distributed domestically or exported internationally are safe and effective for their intended uses. FDA regulates the total product lifecycle from early design, development and testing, to manufacturing and commercialization activities, as well as post-market surveillance and reporting, including corrective actions, removals and recalls. Unless an exemption applies, most medical devices distributed in the United States require either 510(k) clearance or PMA from FDA.

510(k) Clearance Pathway. To obtain 510(k) clearance, we must submit a notification to FDA demonstrating that our proposed device is substantially equivalent to a predicate device, i.e., a previously cleared and legally marketed 510(k) device or a device that was in commercial distribution before May 28, 1976, for which FDA has not yet called for the submission of a PMA. Any modification to a 510(k)-cleared device that would constitute a major change in its intended use, or a change in its design or manufacture that could significantly affect the safety or effectiveness of the device, requires a new 510(k) clearance.

Premarket Approval Pathway. A PMA must be submitted to FDA if the device cannot be cleared through the 510(k) process and is not otherwise exempt. A PMA must be supported by extensive data, including but not limited to technical, preclinical, clinical, real-world data, manufacturing and labeling, to demonstrate the safety and effectiveness of the device for its intended use. A PMA supplement is required for changes affecting the safety or effectiveness of a PMA-approved device, including but not limited to new indications for use, a different manufacturing facility, or changes in the manufacturing process, labeling, or design specifications or components of the device.

Clinical Trials. Clinical trials are required to support a PMA and are sometimes required for 510(k) clearance. Clinical trials are subject to extensive recordkeeping and reporting requirements. Our clinical trials must be conducted under the oversight of an Institutional Review Board (IRB) for the relevant clinical trial sites and must comply with FDA regulations, including, but not limited to, those relating to current good clinical practices. We are also required to obtain the written informed consent of patients in form and substance that complies with both FDA requirements and other human

subject protection regulations established by FDA. We must conduct our clinical studies in compliance with state and federal privacy laws, including the Health Insurance Portability and Accountability Act (HIPAA).

Educational Grants. FDA regulates the promotion of medical devices by manufacturers and prohibits the promotion by manufacturers of uses that are not within the approved or cleared labeling of the device. FDA does not regulate the practice of medicine or the conduct or content of medical education conducted by third parties, which may include uses that are not within approved or cleared device labeling. Manufacturers may provide unrestricted financial support for independent third-party medical education programs in the form of educational grants intended to offset the cost of such programs. If the manufacturer controls or unduly influences the content of such programs, FDA considers those programs to be promotional activities by the manufacturer and thus subject to FDA regulation including promotional restrictions. We seek to ensure that our educational grants program is conducted in accordance with FDA criteria for independent educational activities. However, we cannot provide an assurance that FDA or other government authorities would view the third-party programs we have supported as being independent.

Pervasive and Continuing Regulation. There are numerous regulatory requirements that apply after a product is cleared or approved by FDA, including, but not limited to: annual establishment registration and product listing; current good manufacturing practice for devices (GMP); labeling requirements and advertising and promotion guidelines; assessing the significance of any changes to a device; monitoring and reporting serious and adverse events and certain device malfunctions; and reporting certain device corrections and removals. Our manufacturing facilities and processes are also subject to FDA inspections to ensure compliance with Quality System Regulations (QSR).

In addition to FDA regulation, the advertising and promotion of certain medical devices are also regulated by the Federal Trade Commission and by state regulatory and enforcement authorities. On occasion, promotional activities for FDA-regulated products can be the subject of enforcement action brought under healthcare reimbursement laws and consumer protection statutes. In addition, under the Federal Lanham Act and similar state laws, competitors and others can initiate litigation relating to advertising claims.

Fraud, Abuse and False Claims. We are directly and indirectly subject to various federal and state laws governing our relationship with healthcare providers. In particular, the Anti-Kickback Statute is a federal criminal law that applies broadly and prohibits the knowing and willful offer or payment of remuneration to induce or reward patient referrals or the generation of business involving any item or service payable by a federal health care program. The federal False Claims Act (FCA) imposes civil liability on any person or entity that submits, or causes the submission of, a false or fraudulent claim to the United States government. Damages under the FCA consist of the imposition of fines and penalties and can be significant. The FCA also allows a private individual or entity with knowledge of past or present fraud against the federal government to sue on behalf of the government to recover the civil penalties and treble damages.

AtriCure is a member of the Advanced Medical Technology Association (AdvaMed), a voluntary United States trade association for medical device manufacturers. This association has established guidelines and protocols for medical device manufacturers in their relationships with healthcare professionals on matters including research and development, product training and education, grants and charitable contributions, support of third-party educational conferences and consulting arrangements. Adoption of the AdvaMed Code of Ethics for Interactions with Healthcare Professionals (the "AdvaMed Code") by a medical device manufacturer is voluntary, and while the Office of the Inspector General and other federal and state healthcare regulatory agencies encourage its adoption and may look to the AdvaMed Code, they do not view adoption of the AdvaMed Code as proof of compliance with applicable laws. We have adopted the AdvaMed Code and incorporated its principles in our standard operating procedures, employee training programs and relationships with medical professionals.

Regulation Outside of the United States:

Sales of medical devices outside of the United States are subject to foreign governmental regulations which vary substantially from country to country. The time required to obtain certification or approval by a foreign country may be longer or shorter than that required for FDA clearance or approval and the requirements may be different, but the general trend is toward increasing regulation and greater requirements for the manufacturer to provide more bench testing and clinical evidence. In addition, regulatory agencies and authorities can halt distribution within the country or otherwise take action in accordance with local laws.

Conformity Assessment Pathway. In the European Union, various directives regulate the design, manufacture and labeling of medical devices, and more stringent conformity assessment requirements have been put in place with the 2017 Medical Device Regulation, effective May 26, 2021. The method for assessing conformity varies depending on the type and class of the product, but typically involves a combination of quality system assessment and product conformity

assessment by a third-party notified body, an independent and neutral institution appointed by a country to conduct the conformity assessment. This third-party assessment includes a review of documentation related to the device that may be as extensive as the documentation requirements that the United States FDA requires for higher risk products. The notified body also audits the manufacturer's quality system and performs a detailed review of the testing of the manufacturer's device. Successful completion of a conformity assessment procedure allows a manufacturer to issue a declaration of conformity with the requirements of the relevant directive and affix the CE mark to the device. Devices that bear the CE mark may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the medical device regulations.

Pervasive and Continuing Regulation. There are numerous regulatory requirements that apply after a product has been approved by the notified body for CE marking, including, but not limited to: labeling, advertising and promotion, reporting of device modifications, monitoring the safety of the product and performing corrections and removals when necessary, maintaining "state of the art" requirements for the devices through compliance with standards, and obtaining recertification of the quality system and individual device certificates on a periodic basis.

AtriCure is a member of MedTech Europe, a voluntary trade association for the medical technology industry including diagnostics, medical devices and digital health. MedTech Europe and its members are committed to a high level of ethical business practices and have put in place strict guidelines to advise medical technology manufacturers on how to collaborate ethically with healthcare professionals (HCPs). These guidelines are set out in the MedTech Europe Code of Ethical Business Practice (MedTech Code), which regulates all aspects of the industry's relationships with HCPs and healthcare organizations (HCOs). It covers medical education and research and development. It also introduces an independent enforcement mechanism and transparency obligations. The Code sets clear and transparent rules for the industry's relationships with HCPs and HCOs, including company events, third-party organized events, arrangements with consultants, gifts, research and financial support to medical education. We have adopted the MedTech Code and incorporated its principles in our standard operating procedures, employee training programs and relationships with medical professionals.

Consulting Relationships

We have developed consulting relationships with scientists and physicians throughout the world to support our research and development, clinical and training and education programs. We work closely with these thought leaders to understand unmet needs and emerging applications for the treatment of Afib and other diseases and conditions.

Our physician consulting agreements are intended to satisfy the requirements of the personal services "Safe Harbor" regulation as well as the AdvaMed Code and the MedTech Europe Code of Ethical Business Practice. As such, they provide for payment of a fair market value fee only for legitimate services rendered to us. We do not expect or require the consultant to utilize or promote our products, and consultants are required to disclose their relationship with us as appropriate, such as when publishing an article in which one of our products is discussed. Amounts paid to physicians in the United States are disclosed by us in annual reports submitted to CMS under the federal "Open Payments" law. Amounts paid to physicians in certain other countries are also disclosed by us in reports submitted to various governmental agencies in those countries, in accordance with the laws of the jurisdictions where those physicians reside or practice, or where the payments are made.

Intellectual Property

Protection of our intellectual property is a priority for our business, and we rely on a combination of patent, copyright, trademark and trade secret laws to protect our interests. Our ability to protect and use our intellectual property rights in the continued development and commercialization of our technologies and products, operate without infringing the proprietary rights of others, and prevent others from infringing our proprietary rights is important to our continued success. We will be able to protect our products and technologies from unauthorized use by third parties only to the extent that they are covered by valid and enforceable patents, trademarks or copyrights, or are effectively maintained as trade secrets, know-how or other proprietary information.

We hold numerous issued United States and international patents. We also have multiple pending United States and international patent applications. We seek patent protection relating to technologies and products we develop in both the United States and in selected foreign countries. While we own much of our intellectual property, including patents, patent applications, trademarks, trade secrets, know-how and proprietary information, we also license know-how and related technology of importance to the commercialization of our products. To continue developing and commercializing our current and future products, we may license intellectual property from commercial or academic entities to obtain the rights to technology that is required for our research, development and commercialization activities.

All of our employees and technical consultants are required to execute confidentiality agreements in connection with their employment and consulting relationships with us. We also generally require them to agree to disclose and assign to us all inventions conceived in connection with their relationship with us. We devote significant resources to obtaining patents and other intellectual property and protecting our other proprietary information. If valid and enforceable, these patents may give us a means of blocking competitors from using infringing technology to compete directly with our products. We also have proprietary information that may not be patentable. With respect to proprietary information that is not patentable, we have chosen to rely on trade secret protection and confidentiality agreements to protect our interests.

Manufacturing

We assemble, inspect, test and package the majority of our products at our facilities in Ohio, and our products are sterilized by third parties. Purchased components are often sourced from a single supplier, but alternatives to critical suppliers are available in the event this would be needed.

To minimize supply chain risks, we maintain inventory levels of components and raw materials specific to the respective part or device. We assess tooling and equipment on an ongoing basis. Order quantities and lead times for components purchased from outside suppliers are based on our forecasts derived from historical demand and anticipated future demand. Lead times may vary significantly depending on the size of the order, time required to fabricate and test the components, specific supplier requirements and current market demand for the components and raw materials. To date, we have not experienced significant product availability or delay issues directly related to obtaining any of our components.

We regularly audit our suppliers for compliance with our quality system requirements, the QSR and/or applicable International Organization of Standardization (ISO) standards. We are an FDA-registered medical device manufacturer and certified to ISO 13485:2016. We routinely conduct internal audits of our quality systems in accordance with various international standards. In addition, we have successfully participated in the Medical Device Single Audit Program (MDSAP) and have been certified accordingly. The MDSAP program is recognized in Australia, Brazil, Canada, Japan and the United States.

We are subject to numerous federal, state and local laws relating to such matters as laboratory practices, the experimental use of animals, the use and disposal of hazardous or potentially hazardous substances, safe working conditions, manufacturing practices, environmental protection and fire hazard control.

Human Capital Management

Successful execution of our strategy is dependent on attracting, developing and retaining key employees and members of our management team. As of December 31, 2023, we had approximately 1,200 employees. Our Board of Directors, along with the Compensation Committee, provides oversight of the human capital management including demographics, diversity and inclusion efforts, and aspects of employee compensation.

At AtriCure, our employees are crucial to the ongoing success of the company. The skills, experience and industry knowledge of our employees significantly benefit our operations and performance. We continuously evaluate, modify and enhance our internal processes to increase employee engagement, productivity and efficiency, as well as to recruit new employees to support our growth. Recognizing the significance of our employees to our success, in 2022 we introduced a “people objective” to our annual incentive plan focused on attraction, development and retention of talent, in addition to strategic Diversity, Equity and Inclusion (DE&I) initiatives.

Talent Attraction and Retention

We attract top talent to AtriCure and provide mechanisms for them to take ownership of their career paths to support their career aspirations so they can build a long-term future with our company. Over the last five years, voluntary turnover rate among our employees has remained consistently below 10%, outperforming the industry average. We conduct engagement surveys of our employees at least annually with our last Organizational Health Survey resulting in above average results when compared to similar size companies. In addition, our employees have voted us as a Top Workplace eight times in the past nine years, and internationally, our employees have voted us a Great Place to Work for two consecutive years. We also promote employee retention and development by supporting internal movement to create accretive experiences for our employees. We have made focused efforts to attract diverse candidates in our pipeline and have expanded our recruiting channels to connect with new communities.

Talent Management and Development

Our philosophy of Talent Mastery is our aspirational commitment to spend as much time focusing on our talent as we do on our business strategies. Under this philosophy, we believe our leaders will better help attract, develop and retain talent. We are committed to identifying and developing the talents of our next-generation leaders, and conduct a

comprehensive Talent and Organization Planning to position AtriCure with appropriate organization and leadership capability to meet current and future business needs. In that process, we review existing leaders and prospective leaders throughout the organization and determine next best steps for their future development.

Employee development is an important part of the way we drive retention and foster a strong culture of learning. We have invested in programs to drive ongoing career development and provide a range of training courses and online resources for employees, and opportunities for coaching and mentoring. Programs and offerings for development include AMPLIFY, our leadership development program for mid-level leaders across the company; and AtriCure YOUniversity, a series of competency-based courses for global employees. In addition to development programs for all employees, we have several functional development programs, such as the Engineering Development Program that offers four six-month rotations through different departments as part of our differentiated early pipeline talent development. Lastly, we provide tuition reimbursement for employees pursuing undergraduate and graduate degrees.

Diversity, Equity, and Inclusion (DE&I)

We are driven by the belief that diverse skills and experiences produce better outcomes and more innovative solutions to improve patients' lives. We have an ongoing commitment to advancing DE&I throughout our workplace and the communities in which we operate. Our leaders lead from the front by creating an environment that fosters a sense of belonging and ignites passion within their team. This leader-led approach to building an equitable and inclusive workforce has a longstanding commitment to fostering a workplace that rejects discrimination, celebrates differences, and promotes equality. Our DEI framework guides our long-term vision and is grounded in the following objectives:

- Attract and develop employees resembling the diversity of the communities, partners and patients we serve
- Create a diverse talent pipeline by fostering awareness of STEM and healthcare careers for women and ethnically diverse groups
- Foster a culture of inclusion and belonging where all employees are valued and empowered
- Enhance DE&I understanding and behaviors through education and development
- Increase awareness and advocate for diversity in medical research and clinical trials through healthcare partnerships
- Explore opportunities to invest in local economic growth by supporting women and ethnically diverse groups, while collaborating with our partners to engage communities to promote heart health awareness

Our DE&I efforts are overseen internally by our Chief Human Resources Officer who works with our leadership to further advance our commitment and programs by fostering employee understanding, intentionality and measurable processes. This commitment is also reflected in the current makeup of our Board of Directors, which helps to set the “tone at the top” for our DE&I initiatives.

Compensation and Benefits

Competitive compensation and benefits are an integral part of our efforts to attract and retain world-class talent. We are committed to regularly analyzing and evaluating the effectiveness of our compensation and benefit programs and benchmarking our programs against the market and our industry peers. Annual pay increases and other forms of incentive compensation are based on performance and market evaluation. Performance expectations are communicated to employees at the time of hiring, as well as upon internal transfer or promotion, and documented through our annual performance management process.

Benefits for eligible U.S.-based employees include medical, dental and vision insurance; paid leave for vacation, illness and volunteer time; parental leave, fertility and adoption assistance; a 401(k) retirement plan that includes a company matching contribution; a stock purchase plan enabling employees to purchase AtriCure stock at a reduced price; and life and disability insurance. Our international employee benefits vary due to local regulations and offerings. We ensure compliance with all statutory and mandatory benefits which vary by country, such as medical, disability, retirement/pension, workers compensation, accident, social benefits and paid leave. None of our employees are represented by a labor union, and we have never experienced any employment-related work stoppages. We consider our employee relations to be in good standing. Our attrition rate is historically lower than the industry average. AtriCure has a strong company culture, which is reflected in our employee engagement and overall success.

Safety for All Employees

We are committed to maintaining a safe workplace and promoting all our employees' well-being. We have implemented multiple safety programs and regularly perform safety hazard evaluations within our facilities. Programs include our Emergency Site Action Plan for emergencies such as fire response, severe weather threats and shelter in place

incidents, as well as our Certified First Responders safety program that include Red Cross training of employees in CPR, AED Usage and First Aid practices. We recognize that the use of tobacco is linked to many adverse health effects, including those that impact the heart, and we offer our employees tobacco cessation programs. Since 2021, our Ohio office locations are entirely tobacco- and nicotine-free, and to the extent permitted in the states of our other offices, those locations are also entirely tobacco- and nicotine-free.

Available Information

Our principal executive offices are located at 7555 Innovation Way, Mason, Ohio and our telephone number is 513-755-4100. We are subject to the reporting requirements under the Securities Exchange Act of 1934. Consequently, we are required to file reports and information with the Securities and Exchange Commission (SEC) including reports on the following forms: Form 10-K, Form 10-Q, Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. These reports and other information concerning us may be accessed through the SEC's website at http://www.sec.gov. You may also find, free of charge, on our website at http://www.atricure.com, electronic copies of our Form 10-Ks, Form 10-Qs, Form 8-Ks and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934. Such filings are placed on our website as soon as reasonably practicable after they are filed or furnished, as the case may be, with the SEC. Our charters for our Audit, Compensation, Nominating and Corporate Governance, Strategy, and Compliance, Quality and Risk Committees and our Code of Conduct are available on our website. In the event that we grant a waiver under our Code of Conduct to any of our officers or directors or make any material amendments to the Code of Conduct, we will publish it on our website within four business days. Information on our website is not deemed to be a part of this Form 10-K.

ITEM 1A. RISK FACTORS

The following discussion of risk factors contains forward-looking statements. These risk factors may be important to understanding other statements in this report. The following information should be carefully considered in addition to the other information set forth in this report, including the Management's Discussion and Analysis of Financial Conditions and Results of Operations section and Consolidated Financial Statements and accompanying notes. If any of the risks or uncertainties described below actually occur or continue to occur, our business, reputation, financial condition, results of operations, future prospects and stock price could be materially and adversely affected. The risks below are not the only risks we face and additional risks not currently known to us or that we presently deem immaterial may emerge or become material at any time and may negatively impact our business, reputation, financial condition, results of operations, future prospects or stock price. The order in which these factors appear should not be construed to indicate their relative importance or priority.

Risk Factors Summary

The following is a summary of the principal risks that could adversely affect our business, operations, financial results and stock price.

Commercial Execution and Product Performance Risks

- Failure to achieve widespread market acceptance domestically may harm operating results.
- Competition from existing and new products and procedures may decrease our market share.
- Clinical data may be negative, or our trials may not satisfy requirements of regulatory authorities, slowing or reversing the rate of adoption or reducing use of our products by the medical community.
- Reliance on independent distributors to sell our products in some international markets could adversely impact our sales.

Industry Condition Risks

- A prolonged downturn in macroeconomic conditions may materially adversely affect our business.
- Rising healthcare costs may result in efforts by government and private payors to contain or reduce healthcare spending, including reimbursement for procedures that utilize our products.
- Adverse changes in governmental and third-party payors' policies toward coverage and reimbursement for surgical procedures would harm our ability to promote and sell our products.

Operational Risks

- Unfavorable publicity relating to our business or industry could negatively impact our operations.
- Reliance upon single and limited source third-party suppliers and service providers could harm our business if such third parties cannot provide materials or products or perform services for us in a timely manner.
- Our manufacturing operations are highly centralized and disruption could harm our business.
- If we fail to properly manage our anticipated growth, our business could suffer.
- If we cannot retain our skilled and experienced officers and other employees, or recruit, hire, train and integrate sufficient additional qualified personnel, our business may suffer.
- Disruptions of critical information systems or material breaches in the security of our systems could harm our business, customer relations and financial condition.
- Our insurance may not cover our indemnification obligations and other liabilities associated with our operations.

Legal & Compliance Risks

- We could face substantial penalties if we do not fully comply with federal, state and foreign regulations.
- We may be subject to fines, injunctions and penalties if we fail to comply with extensive FDA regulations.
- Unless and until we obtain additional FDA approval for our products, we will not be able to promote them for treatment of Afib and/or to prevent stroke, and our inability to maintain or grow our business could be harmed. We may be subject to fines, injunctions and penalties if we are found to be promoting our products for unapproved or off-label uses.
- Modifications to our products may require new clearances or approvals by FDA; failure to obtain such clearances or approvals where required could result in a recall of the modified products and limitation on future sales until cleared or approved.

- If we or our third-party vendors fail to comply with extensive FDA regulations relating to the manufacturing of our products we may be subject to fines, injunctions and penalties.
- Any adverse finding, judgement, settlement or enforcement action against us as a result of the current *qui tam* lawsuit could negatively affect our business.
- The use of products we sell may result in injuries or other adverse events that lead to product liability claims.
- Our ability to compete in the marketplace could be affected if our intellectual property rights fail to provide meaningful commercial protection for our products.
- Litigation and administrative proceedings over patent and other intellectual property rights are common in our industry, and any litigation or claim against us may cause us to incur substantial costs.
- We are subject to various regulatory and other risks related to selling our products internationally which could harm our revenue.
- Any allegation or determination of wrongdoing under the Foreign Corrupt Practices Act or other anti-corruption laws could have a material adverse effect on our business.
- Compliance with European Union medical device regulation may limit our ability to sell our products in European markets.

Financial Risks

- Our quarterly financial results are likely to fluctuate significantly.
- We have a history of net losses, and we may never become profitable.
- Governmental authorities may question our intercompany transfer pricing policies or change their laws in a manner that could increase our effective tax rate.
- Our goodwill may become impaired which could adversely affect our financial performance.
- We may take inventory-related charges as a result of inaccurate forecasting or estimates of product life cycles which would negatively affect our gross margins and results of operations.
- We are subject to credit risk from our accounts receivable related to our sales.
- We may be unable to comply with the covenants of our Loan Agreement.

Common Stock Risks

- We may fail to achieve our publicly announced guidance about our business which could cause a decline in our stock price.
- Securities analysts may discontinue coverage for our common stock or issue reports which could have a negative impact on the market price of our common stock.
- Our common stock may experience extreme fluctuations in the price and trading volume causing our stockholders to lose some or all of their investment.
- The sale of material amounts of common stock could encourage short sales by third parties and depress the price of our common stock causing our stockholders to lose part or all of their investment.
- Stockholder ownership of our common stock may be diluted if we sell common stock in a capital raising transaction or issue shares in a future acquisition.
- Anti-takeover provisions in our amended and restated certificate of incorporation and amended and restated bylaws and under Delaware law could inhibit a change in control or a change in management that stockholders consider favorable.
- Our stockholders must rely on stock appreciation for any return on investment as we do not expect to pay dividends in the foreseeable future.

Commercial Execution and Product Performance Risks

If our products do not achieve widespread market acceptance in the United States, our operating results will be harmed, and we may not achieve or sustain profitability.

Our success depends in large part on the medical community's acceptance of our products in the United States, which is the largest revenue market in the world for medical devices. Our ablation and LAAM product sales in the United States generate the majority of our revenue. We expect that sales of these products will continue to account for a majority of our revenue for the foreseeable future and that our future revenue will depend on the increasing acceptance by the medical community of our products as standard of care for treating Afib, managing the LAA and managing pain with Cryo Nerve Block therapy. The U.S. medical community's acceptance of our products will depend upon our ability to demonstrate the safety and efficacy, advantages, long-term clinical performance and cost-effectiveness of our products. In addition, acceptance of products for the treatment of Afib is dependent upon, among other factors, the level of awareness and education of the medical community about the surgical treatment of Afib and the existence, effectiveness and safety of our products. Market acceptance and adoption of our products for the treatment of Afib also depends on the level of health insurer (including Medicare) reimbursement to physicians and hospitals for procedures using our products. Negative publicity resulting from incidents involving our products, or similar products could have a significant adverse effect on the overall acceptance of our products. If we encounter difficulties growing the market for our products in the U.S., we may not be able to increase our revenue enough to achieve or sustain profitability, and our business and operating results will be seriously harmed.

Competition from existing and new products and procedures may decrease our market share and may cause our revenue to decline, and could adversely affect our operating results.

The medical device industry, including the market for the treatment of Afib, is highly competitive, is subject to rapid technological change and can be significantly affected by new product introductions and promotional activities. There is no assurance that our products will compete effectively against drugs, catheter-based ablation, implantable devices, other surgical ablation devices, other products or techniques to occlude the left atrial appendage or other products and techniques to manage post-operative pain. Our products may become obsolete prior to the end of their anticipated useful lives, or we may introduce new products or next-generation products prior to the end of the useful life of our current products, either of which may require us to dispose of existing inventory and related capital equipment and/or write off their value or accelerate their depreciation. In addition, other products may be sold at lower prices. Due to the size of our markets, we anticipate that new or existing competitors may develop competing products, procedures and/or clinical solutions. There are few barriers to prevent new entrants or existing competitors from developing products to compete directly with ours. Companies also compete with us to attract qualified scientific, technical and commercial personnel as well as funding. Most of our competitors and potential competitors have greater financial, manufacturing, marketing and research and development capabilities than we have, and may obtain FDA approval or clearance for their products. In 2023, Medtronic announced the FDA clearance of the Penditure™ Left Atrial Appendage Exclusion System. The introduction of new products, procedures or clinical solutions, or our competitors obtaining FDA approvals or clearances, such as Medtronic's Penditure device, may result in price reductions, reduced margins, loss of market share, or may render our products obsolete, which could adversely affect our revenue and future profitability.

Any clinical data that is generated regarding our products may not be positive, and our current and planned clinical trials may not satisfy the requirements of the FDA or other regulatory authorities.

Our clinical trials are expensive to conduct, typically taking many years to complete and have uncertain outcomes. Delays in patient enrollment or failure of patients to consent or continue to participate in a clinical trial may cause an increase in costs and delays in the approval and attempted commercialization of our products or result in the failure of the clinical trial. Conducting successful clinical studies may require the enrollment of large numbers of clinical sites and patients, and suitable patients may be difficult to identify and recruit. Patient enrollment in clinical trials and completion of patient participation and follow-up depends on many factors, including the size of the patient population; the nature of the trial protocol; the attractiveness of, or the discomforts and risks associated with, the treatments received by enrolled subjects; the availability of appropriate clinical trial investigators, support staff, and proximity of patients to clinical sites; and the ability to comply with the eligibility and exclusion criteria for participation in the clinical trial and patient compliance.

Our products will be measured on their efficacy. We cannot provide any assurance that the data collected during our clinical trials will be compelling to the medical community because it may not be scientifically meaningful, may identify unexpected safety concerns, and may not demonstrate that procedures utilizing our products are an attractive option when

compared against data from alternative procedures and products. Negative data could affect the use of our products and harm our business and prospects.

Conversely, positive results from clinical trial experience should not be relied upon as evidence that any of our products will gain market acceptance or that they will satisfy regulatory requirements for product approval. There can be no assurance that the results of studies conducted by collaborators or other third parties will be viewed favorably or are indicative of our own future study results. We may be required to demonstrate with substantial evidence through well-controlled clinical trials that our product candidates are either (i) safe and effective for use in a diverse population for their intended uses or (ii) are substantially equivalent to predicate devices under section 510(k) of the Food, Drug and Cosmetic Act (FDCA). Success in early clinical trials does not mean that future clinical trials will be successful because product candidates in later-stage clinical trials may fail to demonstrate sufficient safety and efficacy to the satisfaction of the FDA and other regulatory authorities despite having progressed through initial clinical trials.

Our devices and products may not be approved or cleared even though clinical or other data, in our view, are adequate to support an approval or clearance. The FDA or other regulatory authorities may:

- disagree with our trial design and our interpretation of data from preclinical studies and clinical trials;
- change requirements for the approval or clearance of a product candidate even after reviewing and providing comment on a protocol for a pivotal clinical trial;
- approve or clear a product candidate for fewer or more limited indications or uses than we request;
- grant approval or clearance contingent on the performance of costly post-marketing clinical trials; or
- not approve the labeling claims necessary or desirable for the successful commercialization of our product candidates.

These factors would affect the rate and extent to which our products are adopted in the medical community.

We rely on independent distributors to market and sell our products in certain markets outside of the United States, and a failure of our independent distributors to successfully market our products or any disruption in their ability to do so may adversely impact our sales.

We depend on independent third-party distributors to sell our products in certain markets outside of the United States, and if these distributors do not perform, we may be unable to maintain or increase international revenue. We intend to grow our business outside of the United States, and to do so, we will need to attract additional distributors or hire direct sales personnel to expand the territories in which we sell our products. Independent distributors may terminate their relationship with us or devote insufficient sales efforts to our products. We are not able to control our independent distributors, and they may not be successful in marketing our products. In addition, many of our independent distributors outside of the United States initially obtain and maintain foreign regulatory approval for sale of our products in their respective countries. Our failure to maintain our relationships with our independent distributors outside of the United States, or our failure to recruit and retain additional skilled independent distributors in these locations, could have an adverse effect on our operations. Turnover among our independent distributors, even if replaced, may adversely affect our short-term financial results while we transition to new independent distributors or direct sales personnel. The ability of these independent distributors to market and sell our products could also be adversely affected by unexpected events, including, but not limited to, power failures, nuclear events, local economic and political conditions, natural or other disasters and war or terrorist activities. In addition, the ability of our independent distributors to borrow money from their existing lenders or to obtain credit from other sources to purchase our products may be impaired or our independent distributors could experience a significant change in their liquidity or financial condition, all of which could impair their ability to distribute our products and eventually lead to distributor turnover, and may adversely impact our sales.

Industry Conditions Risks

A prolonged downturn in macroeconomic conditions in which we operate may materially adversely affect our business.

A prolonged economic downturn as a result of the collateral effects of inflationary pressures, increases in interest rates, slower economic activity, a future outbreak of COVID-19 or a similar infectious disease, among other factors, may adversely impact our business. Specifically, impacts to procedure volumes and hospital staffing may result in reductions of our revenue and materially and adversely affect our results of operations and cash flows. Geopolitical issues around the world have impacted the global supply chain and could materially adversely affect global economic growth, disrupt discretionary spending habits and generally decrease demand for our products and services. Our customers' ability to borrow money from their existing lenders or to obtain credit from other sources to purchase our products may be impaired,

resulting in a decrease in sales. We may experience diversion of healthcare resources away from the conduct of clinical trials, including the diversion of hospitals serving as our clinical trial sites. We may also encounter interruption or delays in the operations of FDA or other regulatory authorities, which may impact review and approval timelines. We are unable to predict the extent to which current or future worldwide economic conditions may impact our business.

Healthcare costs have risen significantly over the past decade. There have been and may continue to be proposals by legislators, regulators and third-party payors to keep, contain or reduce healthcare costs.

The continuing efforts of governments, insurance companies and other payors of healthcare costs to contain or reduce these costs, combined with closer scrutiny of such costs, could lead to patients being unable to obtain approval for payment from these third-party payors. The cost containment measures that healthcare providers are instituting both in the U.S. and internationally could harm our business. Some healthcare providers in the U.S. have adopted or are considering a managed care system in which the providers contract to provide comprehensive healthcare for a fixed cost per person. Healthcare providers may attempt to control costs by authorizing fewer elective surgical procedures, eliminating incremental procedure costs or by requiring the use of the least expensive devices possible, which could adversely affect the demand for our products or the price at which we can sell our products. Some healthcare providers have sought to consolidate and create new companies with greater market power, including hospitals. As the healthcare industry consolidates, competition to provide products and services has become and will continue to become more intense. This has resulted and likely will continue to result in greater pricing pressures and the exclusion of certain suppliers from important marketing segments.

Adverse changes in governmental and third-party payors' policies toward coverage and reimbursement for surgical procedures would harm our ability to promote and sell our products.

Third-party payors are increasingly exerting pressure on medical device companies to reduce their prices. Even to the extent that the use of our products is reimbursed by private payors and governmental payors, adverse changes in payors' policies toward coverage and reimbursement for surgical procedures would also harm our ability to promote and sell our products. Payors continue to review their policies and can, without notice, deny coverage for treatments that include the use of our products. Because each third-party payor individually approves coverage and reimbursement, obtaining these approvals may be time-consuming and costly. In addition, third-party payors may require us to provide scientific and clinical support for the use of our products. Adverse changes in coverage and reimbursement for surgical procedures could harm our business and reduce our revenue.

FDA does not regulate the practice of medicine. Physicians may use our products in circumstances where they deem it medically appropriate, such as for the treatment of Afib or the reduction in stroke risk, even though FDA may not have approved or cleared our products to be marketed specifically for those indications. Some payors may deny coverage or payment for the use of our products for indications not specifically approved or cleared by FDA. Often, these denials can be overcome through an appeals process, but there is no guarantee of success in these cases.

Our revenue generated from sales outside of the United States is also dependent upon coverage and reimbursement within prevailing foreign healthcare payment systems. Foreign healthcare payors generally do not provide the same level of reimbursement for sole-therapy minimally invasive procedures utilizing ablation devices and related products as payors in the United States. In addition, healthcare cost containment efforts similar to those we face in the United States are prevalent in many of the other countries in which we sell our products, and these efforts are expected to continue. To the extent that the use of our devices has historically received reimbursement under a foreign healthcare payment system, such reimbursement, if any, has typically been significantly less than the reimbursement provided in the United States. If coverage and adequate levels of reimbursement from governmental and third-party payors outside of the United States are not obtained and maintained, sales of our products outside of the United States may decrease, and we may fail to achieve or maintain significant sales outside of the United States.

Operational Risks

We may experience unfavorable publicity relating to our business or our industry. This publicity could have a negative impact on our sales, our ability to attract and retain customers, clinical studies involving our products, our reputation and our stock price.

We may experience a negative impact on our business from newspaper articles or other media reports relating to, among other things, our compliance with FDA regulations for medical device reporting, adverse patient and clinical outcomes, potential impact to our business from competitors or emerging technology and concerns over disclosure of financial relationships between us and our consultants. We believe that such publicity would potentially have a negative

impact on our business, results of operations and financial condition and our clinical studies, or cause other adverse effects, including a decline in the price of our stock.

We rely upon single and limited source third-party suppliers and third-party service providers, making us vulnerable to supply problems and price fluctuations which could harm our business.

We rely on single and limited source third-party vendors for the manufacture and sterilization of components used in our products. For example, we rely on one vendor to manufacture our RF generator, as well as separate vendors to manufacture our EPi-Sense System and related RF generator. It would be a time consuming and lengthy process to secure these products from an alternative supplier. We have significant concentrations with a limited number of vendors. Additionally, our devices are sterilized prior to use using ethylene oxide at third-party sterilizers. Recently, certain sterilization facilities have experienced mandated temporary closures due to concerns over the impact of emissions of ethylene oxide from such facilities, and the Environmental Protection Agency has proposed regulations aimed at reducing hazardous air pollutants. We also rely on third parties to handle our warehousing and logistics functions for European and several other international markets on our behalf.

Our reliance on outside manufacturers, sterilizers and suppliers also subjects us to risks that could harm our business, including:

- we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms;
- we may have difficulty timely locating and qualifying alternative suppliers or sterilizers;
- switching components may require product redesign and new submissions to FDA which would increase our costs and could significantly delay production or, if FDA refuses to approve the changes, completely eliminate our ability to sell our products;
- future regulatory actions to modify sterilization processes may cause sterilizers to close, even on a temporary basis, or require new regulatory approvals for us to use, creating lost sterilization capacity and delays;
- our suppliers manufacture products for a range of customers, and fluctuations in demand for the products those suppliers manufacture for others may affect their ability to deliver components to us in a timely manner; and
- our suppliers may encounter financial hardships unrelated to our demand for components, which could inhibit their ability to fulfill our orders and meet our requirements.

Identifying and qualifying additional or replacement suppliers or sterilizers for any of the components used in our products or replacement of warehousing and logistics providers, if required, may not be accomplished quickly and could involve significant additional costs. Any interruption or delay in the supply of components, materials, sterilization or warehousing and logistics, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products and could therefore have a material adverse effect on our business, financial condition and results of operations.

Our manufacturing operations are highly centralized, and disruption at our manufacturing facilities could increase our expenses and decrease our revenue.

Our manufacturing operations are highly centralized to our corporate headquarters. While we take precautions, such as qualifying a second building for manufacturing, we do not maintain a backup manufacturing facility outside of our Ohio campus, making us dependent on the current facilities and production workers for the continued operation of our business. A natural or other disaster could damage or destroy our manufacturing equipment and cause substantial delays in our manufacturing operations, which could lead to additional expense and decreased revenue due to lack of supply. The insurance we maintain may not be adequate to cover our losses. With or without insurance, damage to our facilities or our other property due to a natural disaster or casualty event could have a material adverse effect on our business, financial condition and results of operations.

If we fail to properly manage our anticipated growth, our business could suffer.

We may experience periods of rapid growth and expansion, which could place a significant strain on our personnel, information technology systems and other resources. In particular, the increase in our direct sales force requires significant management and other supporting resources. Any failure by us to manage our growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals.

To achieve our revenue goals, we must successfully increase production output as required by customer demand. In the future, we may experience difficulties in increasing production, including problems with production yields and quality control, component supply and shortages of qualified personnel. These problems could result in delays in product availability and increases in expenses. Any such delay or increased expense could adversely affect our ability to generate revenues and adversely impact our operating results.

Future growth will also impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees. In addition, rapid and significant growth will place a strain on our administrative and operational infrastructure. In order to manage our operations and growth, we will need to continue to improve our operational and management controls, reporting and information technology systems and financial internal control procedures. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and our operating results and business could suffer.

We depend on our officers and other skilled and experienced personnel to operate our business effectively. If we are not able to retain our current employees or recruit, hire, train and integrate additional qualified personnel, our business will suffer and our future revenue and profitability will be impaired.

We are highly dependent on the skills and experience of our President and Chief Executive Officer, Michael H. Carrel, and certain other officers and key employees. We do not have any insurance in the event of the death or disability of key personnel. Our officers and key employees, with the exception of our President and Chief Executive Officer, do not have employment agreements, and they may terminate their employment and work elsewhere without notice and without cause or good reason. Currently we have non-compete agreements with our officers and other employees. Due to the specialized knowledge of each of our officers with respect to our products and our operations and the limited pool of people with relevant experience in the medical device field, the loss of service of one or more of these individuals could significantly affect our ability to operate and manage our business. The announcement of the loss of one or more of our key personnel could negatively affect our stock price.

We depend on our scientific and technical personnel for successful product development and innovation, which are critical to the success of our business. In addition, to succeed in the implementation of our business strategy, our management team must rapidly execute our sales strategy, obtain expanded FDA clearances and approvals, achieve market acceptance for our products and further develop products, while managing anticipated growth by implementing effective planning, manufacturing and operating processes. Managing this growth will require us to attract and retain additional management and technical personnel. We rely primarily on direct sales employees to sell our products in the United States and in Europe, and failure to adequately train them in the use and benefits of our products will prevent us from achieving our market share and revenue growth goals. We have key relationships with physicians that involve procedure, product, market and clinical development and training. Our business could be negatively impacted if any of these physicians end their relationship with us. We cannot assure you that we will be able to attract and retain the personnel and physician relationships necessary to grow and expand our business and operations. If we fail to identify, attract, retain and motivate these highly skilled personnel and physicians, we may be unable to continue our development and sales activities.

Disruptions of critical information systems or material breaches in the security of our systems could harm our business, customer relations and financial condition.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our customers, suppliers and business partners, and personally identifiable information of our customers and employees in our data centers and on our networks. The secure processing, maintenance and transmission of this information is critical to our operations and business strategy. Like many other companies, we experience attempts to gain unauthorized access to our systems and information on a regular basis, and a number of our employees work remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. Despite our security measures, including employee training, our information technology and infrastructure are vulnerable to cyber-attacks, malicious intrusions, breakdowns, destruction, loss of data privacy, breaches due to employee error, malfeasance or other disruptions. Cyber-attacks are becoming more sophisticated and frequent, and our systems could be the target of malware, ransomware and other cyber-attacks. We have invested in our systems and the protection of our data to reduce the risk of an intrusion or interruption, and we monitor our systems on an ongoing basis for any current or potential threats. We can give no assurances that these measures and efforts will prevent interruptions or breakdowns. If we are unable to detect or prevent a security breach or cyber-attack or other disruption from occurring, then we could incur losses or damage to our data, or inappropriate disclosure of our confidential information or that of others. We have cyber-insurance coverage that may not cover all possible events, and this insurance is subject to deductibles and coverage limitations. We could sustain damage to our reputation and customer and employee relationships, suffer disruptions to our business and incur increased operating costs including costs to mitigate any damage caused and protect against future damage, and be exposed to

additional regulatory scrutiny or penalties and to civil litigation and possible financial liability, any of which could have a material adverse effect on our business, operating margins, revenues and competitive position.

We also rely in part on information technology to store information, interface with customers, maintain financial accuracy, secure our data and accurately produce our financial statements. In addition, some of our software systems are cloud-based data management applications, hosted by third-party service providers whose security and information technology systems are subject to similar risks. The failure to protect either our or our service providers' information technology infrastructure could disrupt our operations. If our information technology systems do not effectively and securely collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies, human error or cyber incident, our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations could be materially impaired. Any such impairment could have a material adverse effect on our results of operations, financial condition and the timeliness with which we report our operating results.

Our insurance may not cover our indemnification obligations and other liabilities associated with our operations.

We maintain insurance designed to provide coverage for ordinary risks associated with our operations and our ordinary indemnification obligations, which we believe to be customary for our industry. The coverage provided by such insurance may not be adequate for claims we may make or may be contested by our insurance carriers. If our insurance is not adequate or available to pay liabilities associated with our operations, or if we are unable to purchase adequate insurance at reasonable rates in the future, our business, financial condition, results of operations or cash flows may be materially adversely impacted.

Legal & Compliance Risks

We spend considerable time and money complying with federal, state and foreign regulations in addition to FDA regulations, and, if we do not fully comply with such regulations, we could face substantial penalties.

We are subject to extensive regulation by the federal government and foreign countries in which we conduct business. The laws that affect our ability to operate our business in addition to the FDCA and FDA regulations include, but are not limited to, the following:

- the Federal Anti-Kickback Statute, which prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce either the referral of an individual, or furnishing or arranging for a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid Programs;
- the Federal False Claims Act, which prohibits submitting a false claim or causing the submission of a false claim to the government;
- Medicare laws and regulations that prescribe the requirements for coverage and payment, including the amount of such payment, and laws prohibiting false claims for reimbursement under Medicare and Medicaid;
- state consumer protection, fraud and business practice laws, including the California Consumer Privacy Act ("CCPA"), which among other things, requires disclosures to California consumers and provides consumers new abilities to opt out of certain sales of personal information;
- state laws that prohibit the practice of medicine by non-doctors and by doctors not licensed in a particular state, and fee-splitting arrangements between doctors and non-doctors, as well as state law equivalents to the Anti-Kickback Statute and the Stark Law, which may not be limited to government-reimbursed items;
- federal and state healthcare fraud and abuse laws or laws protecting the privacy of patient medical information, including the Health Insurance Portability and Accountability Act (HIPAA) which protects medical records and other personal health information by limiting their use and disclosure, giving individuals the right to access, amend and seek accounting reasonably necessary to accomplish the intended purpose;
- laws and regulations, such as the General Data Protection Regulation in the European Union, that govern collection, use, disclosure, transfer and storage of personal data that we may collect from our employees, consultants or in conjunction with clinical trials;
- the Federal Trade Commission Act and similar laws regulating advertising and consumer protection; and

- similar and other regulations outside the United States.

Healthcare fraud and abuse regulations are complex, and even minor, inadvertent irregularities can potentially give rise to claims that a law has been violated. Any violations of these laws could result in a material adverse effect on our business, financial condition and results of operations. If there is a change in law, regulation or administrative or judicial interpretations, we may have to change our business practices or our existing business practices could be challenged as unlawful, which could have a material adverse effect on our business, financial condition and results of operations.

Our manufacturing operations and research and development activities involve the use of biological materials and hazardous substances and are subject to a variety of federal, state and local environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of and human exposure to hazardous substances. Our research and development and manufacturing operations may produce biological waste materials, such as animal tissues and certain chemical waste. These operations are permitted by regulatory authorities, and the resultant waste materials are disposed of in compliance with environmental laws and regulations. Compliance with these laws and regulations may be expensive, and non-compliance could result in substantial liabilities. In addition, we cannot eliminate the risk of accidental contamination or injury to third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed any applicable insurance coverage we may have. Our manufacturing operations may result in the release, discharge, emission or disposal of hazardous substances that could cause us to incur substantial liabilities, including costs for investigation and remediation.

If our operations are found to be in violation of any of the laws described above or the other governmental regulations to which we, our distributors or our customers are subject, we may be subject to the applicable penalty associated with the violation, including civil and criminal penalties, damages, fines, exclusion from Medicare, Medicaid and other government programs and the curtailment or restructuring of our operations. If we are required to obtain permits or licensure under these laws that we do not already possess, we may become subject to substantial additional regulation or incur significant expense. Any penalties, damages, fines, curtailment or restructuring of our operations would adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully or clearly interpreted by the regulatory authorities or the courts, and their provisions are subject to a variety of interpretations and additional legal or regulatory change. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, divert our management's attention from the operation of our business and damage our reputation.

If we fail to comply with the extensive FDA regulations relating to our business, we may be subject to fines, injunctions and penalties, and our ability to commercially distribute and promote our products may be hurt.

Our products are classified by FDA as medical devices and, as such, are subject to extensive regulation by FDA and numerous other federal, state and foreign governmental authorities. FDA regulations, guidance, notices and other issuances specific to medical devices are broad and regulate numerous aspects of our business. Compliance with FDA, state and other regulations can be complex, expensive and time-consuming. FDA and other authorities have broad enforcement powers. Furthermore, changes in the applicable governmental regulations could prevent further commercialization of our products and technologies and could materially harm our business.

If a serious failure to comply with applicable regulatory requirements was determined, it could result in enforcement action by FDA or other state or federal agencies, including the U.S. Department of Justice (USDOJ), which may include any of the following sanctions, among others:

- warning letters, fines, injunctions, consent decrees and civil penalties;
- repair, replacement, refunds, recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- suspension or termination of our clinical trials;
- refusing or delaying our pending requests for 510(k) clearance or PMAs, new intended uses or modifications to existing products;
- withdrawing 510(k) clearance or PMAs that have already been granted; and
- criminal prosecution.

If any of these events were to occur, we could lose customers and our production, product sales, business, results of operations and financial condition would be harmed.

We are also subject to medical device reporting regulations that require us to file reports with FDA if our products may have caused or contributed to a death or serious injury or, in the event of product malfunction, that if such malfunction were to recur, would likely cause or contribute to a death or serious injury. There have been incidents, including patient deaths, which have occurred during or following procedures using our products that we have not reported to FDA because we determined that our products did not malfunction and did not cause or contribute to the outcomes in these incidents. If FDA disagrees with us, however, and determines that we should have submitted reports for these adverse events, we could be subject to significant regulatory fines or other penalties. In addition, the number of medical device reports we make, or the magnitude of the problems reported, could cause us or FDA to terminate or modify our clinical trials or recall or cease the sale of our products, and could hurt commercial acceptance of our products and harm our reputation with customers.

Unless and until we obtain additional FDA approval for our products, we will not be able to promote them for the treatment of Afib and/or to prevent stroke, and our ability to maintain and grow our business could be harmed. We may be subject to fines, penalties, injunctions and other sanctions if we are deemed to be promoting the use of our products for unapproved, or off-label, uses.

Our business and future growth depend on the continued use of our products for the treatment of Afib. Unless the products are approved or cleared by FDA specifically for the treatment of Afib or prevention of stroke, we may not make claims about the safety or effectiveness of our products for such uses. In order to obtain additional FDA approvals to promote our products for the treatment of Afib or reduction in stroke risk, we will need to demonstrate in clinical trials that our products are safe and effective for such use. Development of sufficient and appropriate clinical protocols to demonstrate quality, safety and efficacy may be required and we may not adequately develop such protocols to support approval. We cannot assure you that any of our clinical trials will be completed in a timely manner or successfully or that the results obtained will be acceptable to FDA. We, FDA or the IRB may suspend a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits.

These limitations present a material risk that FDA or other federal or state law enforcement authorities could determine that the nature and scope of our sales, marketing and/or support activities, though designed to comply with all FDA requirements, constitute the promotion of our products for an unapproved use in violation of the FDCA. We also face the risk that FDA or other governmental authorities might pursue enforcement based on past activities that we have discontinued or changed, including sales activities, arrangements with institutions and doctors, educational and training programs and other activities. Investigations concerning the promotion of unapproved uses and related issues, are typically expensive, disruptive and burdensome and generate negative publicity. If our promotional activities are found to be in violation of the law, we may face significant fines and penalties and may be required to substantially change our sales, promotion, grant and educational activities. There is also a possibility that we could be enjoined from selling some or all of our products for any unapproved use.

Although our Isolator Synergy System and EPi-Sense System have received FDA approval for the treatment of some forms of Afib in certain procedures, we have not received FDA clearance or approval to promote our other products for the treatment of Afib or the prevention of stroke. Unless and until we obtain FDA clearance or approval for the use of our other products to treat Afib or prevent stroke, we, and others acting on our behalf, may not claim in the U.S. that such products are safe and effective for such uses or otherwise promote them for such uses. Similar restrictions also exist outside of the U.S. There is no assurance that future clearances or approvals of our products will be granted or that current or future clearances or approvals will not be withdrawn. Failure to obtain a clearance or approval or loss of an existing clearance or approval, could hurt our ability to maintain and grow our business.

Modifications to our products may require new clearances or approvals or may require us to cease promoting or to recall the modified products until such clearances or approvals are obtained and FDA may not agree with our conclusions regarding whether new clearances or approvals were required.

Any modification to a 510(k)-cleared device or PMA-approved device that would constitute a change in its intended use, design or manufacture could require a new or supplemental 510(k) clearance or, possibly, submission and FDA approval of a PMA application or PMA supplement. FDA requires every medical device company to make the determination as to whether a 510(k) must be filed, but FDA may review any medical device company's decision. We have made modifications to our products and concluded that such modifications did not require us to submit a new or supplemental 510(k). FDA may not agree with our decisions regarding whether submissions were required.

If FDA were to disagree with us and require us to submit a 510(k), PMA or a PMA supplement for then-existing modifications, we could be required to cease promoting or to recall the modified product until we obtain clearance or approval. In addition, we could be subject to significant regulatory fines or other penalties. Furthermore, our products could be subject to recall if FDA determines, for any reason, that our products are not safe or effective or that appropriate regulatory submissions were not made. Delays in receipt or failure to receive clearances or approvals, the loss of previously received clearances or approvals or the failure to comply with existing or future regulatory requirements could reduce our sales, profitability and future growth prospects.

If we or our third-party vendors fail to comply with extensive FDA regulations relating to the manufacturing of our products or component parts, we may be subject to fines, injunctions and penalties, and our ability to commercially distribute and sell our products may be hurt.

Our manufacturing facilities and the manufacturing facilities of any of our third-party component manufacturers, critical suppliers or third-party sterilization facilities are required to comply with FDA's QSR, which sets forth minimum standards for the procedures, execution and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipping of the products we sell. FDA may evaluate our compliance with the QSR, among other ways, through periodic announced or unannounced inspections which could disrupt our operations and interrupt our manufacturing. If in conducting an inspection of our manufacturing facilities or the manufacturing facilities of any of our third-party component manufacturers, critical suppliers or third-party sterilization facilities, an FDA investigator observes conditions or practices believed to violate the QSR, the investigator may document their observations on a Form FDA-483 that is issued at the conclusion of the inspection. A manufacturer that receives an FDA-483 may respond in writing and explain any corrective actions taken in response to the inspection observations. FDA will typically review the facility's written response and may re-inspect to determine the facility's compliance with the QSR and other applicable regulatory requirements. Failure to take adequate and timely corrective actions to remedy objectionable conditions listed on an FDA-483 could result in FDA taking administrative or enforcement actions. Among these may be FDA's issuance of a Warning Letter to a manufacturer, which informs the manufacturer that FDA considers the observed violations to be of "regulatory significance" that, if not corrected, could result in further enforcement action. FDA enforcement actions, which include seizure, injunction and criminal prosecution, could result in total or partial suspension of a facility's production and/or distribution, product recalls, fines, suspension of FDA's review of product applications and FDA's issuance of adverse publicity. Thus, an adverse inspection could force a shutdown of our manufacturing operations or a recall of our products. Adverse inspections could also delay FDA approval of our products and could have an adverse effect on our production, sales and financial condition.

We and any of our third-party vendors may also encounter other problems during manufacturing including failure to follow specific protocols and procedures, equipment malfunction and environmental factors, any of which could delay or impede our ability to meet demand. The manufacture of our product also subjects us to risks that could harm our business, including problems relating to the sterilization of our products or facilities and errors in manufacturing components that could negatively affect the efficacy or safety of our products or cause delays in shipment of our products. Interruption or delay in the manufacture of the product or any of its components could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products and could, therefore, have a material adverse effect on our business, financial condition and results of operations.

We are currently defending against a lawsuit brought under the False Claims Act, and any adverse finding, judgement, or enforcement action could materially and adversely affect our business, financial condition or results of operations.

As previously disclosed, on December 11, 2017, the Company received a Civil Investigative Demand (CID) from the US Department of Justice (USDOJ) stating that it was investigating the Company to determine whether the Company has violated the False Claims Act, relating to the promotion of certain medical devices related to the treatment of atrial fibrillation for off-label use and submitted or caused to be submitted false claims to certain federal and state health care programs for medically unnecessary healthcare services related to the treatment of Afib. The Company provided the USDOJ with documents and answers to the written interrogatories, and cooperated with the investigation. In 2021, USDOJ informed the Company that the investigation resulted from a lawsuit by a private individual, or "relator", brought on behalf of the United States and various state and local governments under the *qui tam* provisions of the federal and similar state and local laws. Although the USDOJ and all of the state and local governments declined to intervene, the relator continues to pursue the lawsuit. During the third quarter of 2022, the relator filed a Fourth Amended Complaint, which dropped allegations of off-label promotion and now alleges that the Company paid illegal kickbacks to healthcare providers in exchange for using or referring the Company's products, in violation of the federal Anti-Kickback Statute and various comparable state and local laws. While the Company is contesting the case, it is not possible to predict when the lawsuit

will be resolved, the outcome of the lawsuit or its potential impact on the Company. While the Company believes its practices are lawful, there can be no assurance that the lawsuit will not result in findings of violations of federal laws that could lead to the imposition of damages, fines, penalties, restitution, other monetary liabilities, sanctions, settlements or changes to the Company's business practices or operations that could have a material adverse effect on the Company's business, financial condition or results of operations, or eliminate altogether the Company's ability to operate its business.

The use of products we sell may result in injuries or other adverse events that lead to product liability suits, which could be costly to our business or our customers' businesses.

The use of our products may result in a variety of serious complications, including damage to the heart, nerves, internal bleeding, death, paralysis or other adverse events. Serious complications are commonly encountered in connection with surgical procedures. If products we sell are defectively designed, manufactured or labeled, contain inadequate warnings, contain defective components, are misused or are associated with serious injuries or deaths, we may become subject to costly litigation by our customers or their patients. We carry product liability insurance that is limited in scope and amount and may not be adequate to fully protect us against product liability claims. We could be required to pay damages that exceed our insurance coverage, and such amounts could be significant. Any product liability claim, with or without merit, could also result in an increase in our insurance rates or our inability to secure coverage on reasonable terms, if at all. Even in the absence of a claim, our insurance rates may rise in the future. Any product liability claim, even a meritless or unsuccessful one, would be time-consuming and expensive to defend and could result in the diversion of our management's attention from our business and result in adverse publicity, withdrawal of clinical trial participants, injury to our reputation and loss of revenue. Any of these events could negatively affect our financial condition.

Our intellectual property rights may not provide meaningful commercial protection for our products, which could enable third parties to use our technology or methods, or very similar technology or methods, and could reduce our ability to compete.

Our success depends significantly on our ability to protect our proprietary rights to the technologies used in our products. We rely on patent protection, as well as a combination of copyright, trade secret and trademark laws and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Our patent applications may not issue as patents at all or in a form that will be advantageous to us. Our issued patents and those that may be issued in the future may be challenged, invalidated or circumvented, which could limit our ability to stop competitors from marketing related products.

Although we have taken steps to protect our intellectual property and proprietary technology, we cannot assure you that third parties will not be able to design around our patents or, if they do infringe upon our technology, that we will be successful in or will have sufficient resources to pursue a claim of infringement against those third parties. We believe that third parties may have developed or are developing products that could infringe upon our patent rights. Any pursuit of an infringement claim by us may involve substantial expense or diversion of management attention. In addition, although we have generally entered into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, investigators and advisors, such agreements may be breached, may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements. Additionally, as is common in the medical device industry, some of these individuals were previously employed at other medical equipment or biotechnology companies, including our competitors. Although no claims are currently pending against us, we may be subject to claims that these individuals have used or disclosed trade secrets or other proprietary information of their former employers.

The laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. Foreign countries generally do not allow patents to cover methods for performing surgical procedures. If our intellectual property does not provide significant protection against foreign or domestic competition, any current or future competitors could compete more directly with us, which could result in a decrease in our revenue and market share. All of these factors may harm our competitive position.

The medical device industry is characterized by extensive litigation and administrative proceedings over patent and other intellectual property rights and any litigation or claim against us may cause us to incur substantial costs, could place a significant strain on our financial resources, divert the attention of management from our business and harm our reputation.

Despite measures taken to protect our intellectual property, unauthorized parties might copy aspects of our products or obtain and use information that we regard as proprietary. Whether a product infringes a patent involves complex legal and factual issues, the determination of which is often uncertain. Any patent dispute, even one without merit or an unsuccessful one, would be time-consuming and expensive to defend and could result in the diversion of our management's attention from our business and result in adverse publicity, the disruption of development and marketing efforts, injury to our reputation and loss of revenue. Litigation also puts our patent applications at risk of being rejected and our patents at risk of being invalidated or interpreted narrowly and may provoke third parties to assert claims against us. Any of these events could negatively affect our financial condition.

In the event of a patent dispute, if a third-party's patents were upheld as valid and enforceable, and we were found to be infringing, or found to be inducing infringement by others, we could be prevented from selling our products unless we were able to obtain a license to use technology or ideas covered by such patent or are able to redesign our system to avoid infringement, or we may be ordered to pay substantial damages to the patent holders. A license may not be available at all or on terms acceptable to us, and we may not be able to redesign our products to avoid any infringement. Modification of our products or development of new products could require us to conduct additional clinical trials and to revise our filings with FDA and other regulatory bodies, which would be time-consuming and expensive. If we are not successful in obtaining a license or redesigning our products, we may be unable to sell our products and our business could suffer.

We sell our products outside of the United States, and we are subject to various regulatory and other risks relating to international operations, which could harm our revenue and profitability.

Doing business outside of the United States exposes us to risks distinct from those we face in our domestic operations. For example, our operations outside of the United States are subject to different regulatory requirements in each jurisdiction where we operate or have sales. Our failure, or the failure of our distributors, to comply with current or future foreign regulatory requirements, or the assertion by foreign authorities that we or our distributors have failed to comply, could result in adverse consequences, including enforcement actions, fines and penalties, recalls, cessation of sales, civil and criminal prosecution, and the consequences could be disproportionate to the relative contribution of our international operations to our results of operations. Moreover, if political or economic conditions deteriorate in these countries, or if any of these countries are affected by a natural disaster or other catastrophe, our ability to conduct our international operations or collect on international accounts receivable could be limited and our costs could be increased, which could negatively affect our operating results. Engaging in business outside of the United States inherently involves a number of other difficulties and risks, including, but not limited to:

- export restrictions and controls relating to technology;
- pricing pressure that we may experience internationally;
- difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- political and economic instability;
- consequences arising from natural disasters and other similar catastrophes, such as hurricanes, tornados, earthquakes, floods and tsunamis;
- potentially adverse tax consequences, tariffs and other trade barriers;
- the need to hire additional personnel to promote our products outside of the United States;
- international terrorism and anti-American sentiment;
- fluctuations in exchange rates for future sales denominated in foreign currency, which represent a portion of our sales outside of the United States; and
- difficulty in obtaining and enforcing intellectual property rights.

Our exposure to each of these risks may increase our costs and require significant management attention. We cannot assure you that one or more of these factors will not harm our business.

Due to the global nature of our business, we may be exposed to liabilities under the Foreign Corrupt Practices Act and various other anti-corruption laws, and any allegation or determination that we violated these laws could have a material adverse effect on our business.

Our business practices in foreign countries must comply with anti-corruption laws, including the Foreign Corrupt Practices Act (FCPA), the UK Anti-Bribery Act of 2010 and other U.S. and foreign anti-corruption laws, which prohibit companies from engaging in bribery including corruptly or improperly offering, promising, or providing money or anything else of value to foreign officials and certain other recipients. In addition, the FCPA imposes certain books, records and accounting control obligations on public companies and other issuers. We operate in parts of the world in which corruption can be common and compliance with anti-bribery laws may conflict with local customs and practices. Our global operations face the risk of unauthorized payments or offers being made by employees, consultants, sales agents and other business partners outside of our control or without our authorization.

We have a compliance program in place designed to reduce the likelihood of potential violations of the FCPA and other U.S. and foreign anti-bribery and anti-corruption laws. It is our policy to implement safeguards (including mandatory training) to prohibit these practices by our employees and business partners with respect to our operations. However, irrespective of these safeguards, or as a result of monitoring compliance with such safeguards, it is possible that we or certain other parties may discover or receive information at some point that certain employees, consultants, sales agents, or other business partners may have engaged in corrupt conduct for which we might be held responsible.

Violations of the FCPA or other foreign anti-corruption laws may result in restatements of, or irregularities in, our financial statements as well as severe criminal or civil sanctions, and we may be subject to other liabilities, which could negatively affect our business, operating results and financial condition. In some cases, companies that violate the FCPA may be debarred by the U.S. government and/or lose their U.S. export privileges. Changes in anti-corruption laws or enforcement priorities could also result in increased compliance requirements and related costs which could adversely affect our business, financial condition and results of operations. In addition, the U.S. or other governments may seek to hold us liable for successor liability FCPA violations or violations of other anti-corruption laws committed by companies in which we invest or that we acquired or will acquire.

Compliance with developing European Union medical device regulations may limit our ability to maintain sales of our products in European markets or to introduce new products into European markets.

Many foreign countries where we market or may market our products have regulatory bodies and restrictions similar to those of FDA. International sales are subject to foreign government regulation, the requirements of which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA clearance and the requirements may differ. In particular, marketing of medical devices in the EU is subject to compliance with the Medical Device Directive 93/92/EEC (MDD). A medical device may be placed on the market within the EU only if it conforms to certain “essential requirements” and bears the CE Mark. The most fundamental and essential requirement is that a medical device must be designed and manufactured in such a way that it will not compromise the clinical condition or safety of patients, or the safety and health of users and others. In addition, the device must achieve the essential performance intended by the manufacturer and be designed, manufactured and packaged in a suitable manner.

In May 2017, the EU adopted a new Medical Device Regulation (EU) 2017/745 (MDR), which repealed and replaced the MDD effective May 26, 2021. The MDR clearly envisages, among other things, stricter controls of medical devices, including strengthening of the conformity assessment procedures, increased expectations with respect to clinical data for devices and pre-market regulatory review of high-risk devices. The MDR also envisages greater control over notified bodies and their standards, increased transparency, more robust device vigilance requirements and clarification of the rules for clinical investigations. Under transitional provisions, medical devices with notified body certificates issued under the MDD prior to May 26, 2021, may continue to be placed on the market until 2027 or 2028, depending on device classification, as long as those devices meet the requirements of 2017/745 as amended by EU 2023/607. After the expiry of any applicable transitional period, only devices that have been CE marked under the MDR may be placed on the market in the EU. If we fail to comply with the new MDR, we may not be able to continue to sell existing products in the EU or introduce new products for sale in the EU, either of which could materially harm our results of operations and financial condition.

Financial Risks

Our quarterly financial results are likely to fluctuate significantly because the pace of adoption of our products by clinicians are uncertain.

Due to differing rates of adoption of our devices, our quarterly operating results may fluctuate significantly. Current worldwide economic conditions, natural disasters and other factors discussed in this "Risk Factors" section also may impact our sales results, causing our quarterly operating results to be difficult to predict and may fluctuate significantly from quarter to quarter or from prior year to current year periods. These fluctuations may also affect our annual operating results and may cause those results to fluctuate unexpectedly from year to year.

We have a history of net losses, and we may never become profitable.

Even though we reported net income of $50,199 in 2021, we have a history of net losses, including net losses of $30,438 in 2023, and $46,466 in 2022. As of December 31, 2023, we had an accumulated deficit of $357,057.

Our net losses have resulted principally from costs and expenses relating to sales, training and promotional efforts, research and development, clinical trials, seeking regulatory clearances and approvals and general operating expenses. We expect to continue to incur substantial expenditures and to potentially incur additional operating losses in the future as we further develop and commercialize our products. If sales of our products do not continue to grow as we anticipate, we may not be able to achieve profitability. Our expansion efforts may prove to be more expensive than we currently anticipate, and we may not succeed in increasing our revenue sufficiently to offset these higher expenses. Our losses have had, and are expected to continue to have, an adverse impact on our working capital, total assets and accumulated deficit.

Governmental authorities may question our intercompany transfer pricing policies or change their laws in a manner that could increase our effective tax rate or otherwise harm our business.

As a U.S. company doing business in international markets through subsidiaries, we are subject to foreign tax and intercompany transfer pricing laws, including those relating to the flow of funds between the parent and subsidiaries. If tax authorities challenge our intercompany transfer pricing, our operations may be negatively impacted and our effective tax rate may increase. Tax rates vary from country to country and if regulators determine that our profits in one jurisdiction should be increased, we might not be able to fully offset any associated increase in tax expense in the other jurisdiction, which would increase our effective tax rate. Additionally, the Organization for Economic Cooperation and Development, or OECD, has issued certain proposed guidelines regarding base erosion and profit sharing including minimum taxation. As these guidelines are formally adopted by the OECD, it is possible that separate taxing jurisdictions in which we operate may also adopt some form of these guidelines. In such case, we may need to change our approach to intercompany transfer pricing in order to maintain compliance under the new rules. Our effective tax rate may increase or decrease, including changes in minimum taxation, depending on the current location of global operations at the time of the change. Finally, we might not always be in compliance with all applicable customs, exchange control, value added tax and transfer pricing laws despite our efforts to be aware of and to comply with such laws. In such case, we may need to adjust our operating procedures and our business could be adversely affected.

If our goodwill becomes impaired, it could materially reduce the value of our assets and reduce our net income or increase our net loss for the year in which the impairment occurs.

As of December 31, 2023, we had $234,781 in goodwill, which represents purchase price we paid in excess of the fair value of the net assets we acquired. The Financial Accounting Standards Board's (FASB) Accounting Standards Codification (ASC) 350, "Goodwill and Other Intangible Assets" requires that goodwill be tested for impairment at least annually (absent any impairment indicators). We may have future impairment adjustments to our recorded goodwill. Any finding that the value of our goodwill has been impaired would require us to record an impairment charge which could materially reduce the value of our assets and reduce our net income or increase our net loss for the year in which the impairment charge occurs and increase our accumulated deficit.

An inability to forecast future revenue or estimate life cycles of products may result in inventory-related charges that would negatively affect our gross margins and results of operations.

To mitigate the risk of supply interruptions, we may choose to maintain additional inventory of our products or component parts. Managing our inventory levels is important to our cash position and results of operations and is challenging in the current economic environment. As we grow and expand our product offerings, managing our inventory levels becomes more difficult, particularly as we expand into new product areas and bring product enhancements to market. While we rely on our personnel and information technology systems for inventory management, our personnel and

information technology systems may fail to adequately perform these functions or may experience an interruption. An excessive amount of inventory reduces our cash available for operations and may result in excess or obsolete materials. Conversely, inadequate inventory levels may make it difficult for us to meet customer product demand, resulting in decreased revenue. An inability to forecast future revenue or estimated life cycles of products may result in inventory-related charges that would negatively affect our gross margins and results of operations and increase our accumulated deficit.

We are subject to credit risk from our accounts receivable related to our sales, which include sales into countries outside the United States that may experience economic turmoil.

The majority of our accounts receivable arise from sales in the United States. However, we also have significant receivable balances from customers within the European Union and Asia. Our accounts receivable in the United States are primarily due from public and private hospitals. Our accounts receivable outside the United States are primarily due from public and private hospitals and from independent distributors. Our historical write-offs of accounts receivable have not been significant. We monitor the financial performance and credit worthiness of our customers so that we can properly assess and respond to changes in their credit profile. Our independent distributors operate in certain countries where economic conditions continue to present challenges to their businesses, and, thus, could place the amounts due to us at risk. These distributors are owed amounts from public hospitals that are funded by their governments. Adverse financial conditions in these countries may negatively affect the length of time that it will take us to collect associated accounts receivable or impact the likelihood of ultimate collection.

We may be unable to comply with the covenants of our Credit Agreement.

The Credit Agreement entered into on January 5, 2024, contains specific financial covenants and a minimum liquidity requirement, along with other terms restricting indebtedness, liens, investments and acquisitions, asset dispositions, certain payments and other customary representations and warranties. The Credit Agreement contains mandatory prepayment provisions which require prepayment of amounts outstanding (i) upon the receipt of proceeds from the issuance of any non-permitted indebtedness and (ii) when there is an Availability shortfall, as defined. The occurrence of an event of default could result in an obligation to repay all obligations in full and a right by our lenders to exercise all remedies available to them. If we are unable to pay those amounts, our lenders could proceed against the collateral granted to it pursuant to the Credit Agreement, and we may in turn lose access to both our collateral and our current source of borrowing availability.

Common Stock Risks

We may fail to meet our publicly announced guidance or other expectations about our business and future operating results, which could cause a decline in our stock price.

We provide financial guidance about our business and future operating results. In developing this guidance, our management makes certain assumptions and judgments about our future operating performance, including rate of adoption of our products, projected hiring to support our growth, continued increase of our market share, potential impact from competitive devices and therapies, and stability of the macro-economic environment in our key markets. Furthermore, analysts and investors may develop and publish their own projections of our business, which may form a consensus about our future performance. Our business results may vary significantly from such guidance or that consensus due to a number of factors, many of which are outside of our control and could adversely affect our operations and operating results. Furthermore, if we make downward revisions of our previously announced guidance, or if our publicly announced guidance of future operating results fails to meet expectations of securities analysts, investors, or other interested parties, the market price of our common stock could decline.

Securities analysts may not continue, or additional securities analysts may not initiate, coverage for our common stock or may issue negative reports. This may have a negative impact on the market price of our common stock.

Several securities analysts provide research coverage of our common stock. Some analysts have already published statements that do not portray our technology, products or procedures using our products in a positive light and others may do so in the future. If we are unable to educate those who publicize such reports about the benefits we believe our business provides, or if one or more of the analysts who elects to cover us downgrades our stock, our stock price would likely decline rapidly. If one or more of these analysts ceases coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline. The trading market for our common stock may be affected in part by the research and reports that industry or financial analysts publish about us, our business or our markets. If sufficient securities analysts do not cover our common stock, the lack of research coverage may adversely affect the market price of our common stock. It may be difficult for companies such as ours, with a smaller market capitalization, to attract and

maintain sufficient independent financial analysts that will cover our common stock. This could have a negative effect on the market price of our stock.

The price and trading volume of our common stock may experience extreme fluctuations and our stockholders could lose some or all of their investment.

Because we operate within the medical device segment of the healthcare industry, our stock price is likely to be volatile. The market price of our common stock has had and may continue to have substantial fluctuation due to a variety of factors, including, but not limited to those risk factors described in the "Risk Factors" section herein. These factors, some of which are not within our control, may cause the price of our stock to fluctuate substantially. We believe the quarterly and annual comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

The market prices of the securities of medical device companies, particularly companies like ours without consistent revenue and earnings, have been highly volatile and are likely to remain highly volatile in the future. This volatility has often been unrelated to the operating performance of these particular companies. In the past, companies that experience volatility in the market price of their securities have often faced securities class action litigation. Whether or not meritorious, litigation brought against us could result in substantial costs, divert our management's attention and resources and harm our ability to grow our business.

The sale of material amounts of common stock could encourage short sales by third parties and depress the price of our common stock. As a result, our stockholders may lose all or part of their investment.

The downward pressure on our stock price caused by the sale of a significant number of shares of our common stock or the perception that such sales could occur by any of our significant stockholders could cause our stock price to decline, thus allowing short sellers of our stock an opportunity to take advantage of any decrease in the value of our stock. The presence of short sellers in our common stock may further depress the price of our common stock. Some of our directors and executive officers have entered into, or may enter into, Rule 10b5-1 trading plans pursuant to which they may sell shares of our stock from time to time in the future. Actual or potential sales by these insiders, including those under a prearranged Rule 10b5-1 trading plan, could be interpreted by the market as an indication that the insider has lost confidence in our stock and adversely impact the market price of our stock.

Sales of common stock by us in a capital raising transaction or our issuances of shares in an acquisition may dilute stockholder ownership of common stock and cause a decline in the market price of our common stock.

We may need to raise capital in the future to fund our operations or new initiatives or reduce or pay in full our indebtedness. If we raise funds by issuing equity securities, our stock price may decline and our existing stockholders may experience significant dilution. Furthermore, we may enter into capital raising transactions or issue shares in acquisitions at prices that represent a substantial discount to market price. A negative reaction by investors and securities analysts to any sale of our equity securities could result in a decline in the trading price of our common stock.

Anti-takeover provisions in our amended and restated certificate of incorporation and amended and restated bylaws and under Delaware law could inhibit a change in control or a change in management that stockholders consider favorable.

Provisions in our certificate of incorporation and bylaws could delay or prevent a change of control or change in management that would provide a premium to the market price of common stock. These provisions include those:

- authorizing the issuance without further approval of "blank check" preferred stock that could be issued by our board of directors to increase the number of outstanding shares and thwart a takeover attempt;
- prohibiting cumulative voting in the election of directors, which would otherwise allow less than a majority of stockholders to elect director candidates;
- limiting the ability of stockholders to call special meetings of stockholders;
- prohibiting stockholder action by written consent, thereby requiring all stockholder actions to be taken at a meeting of stockholders; and
- establishing advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon by stockholders at stockholder meetings.

In addition, Section 203 of the Delaware General Corporation Law limits business combination transactions with 15% stockholders that have not been approved by our board of directors. These provisions and others could make it difficult for a third party to acquire us, or for members of our board of directors to be replaced, even if doing so would be beneficial to our stockholders. Because our board of directors is responsible for appointing the members of our management team, these provisions could, in turn, affect any attempt to replace the current management team. If a change of control or change in management is delayed or prevented, stockholders may lose an opportunity to realize a premium on shares of common stock or the market price of our common stock could decline.

We do not expect to pay dividends in the foreseeable future. As a result, stockholders must rely on stock appreciation for any return on investment.

We do not anticipate paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends will also depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Accordingly, stockholders will have to rely on capital appreciation, if any, to earn a return on investment in our common stock. Furthermore, pursuant to our credit facility, we are currently subject to restrictions on our ability to pay dividends and we may in the future become subject to other contractual restrictions on, or prohibitions against, the payment of dividends.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

Risk Management and Strategy

We are committed to preserving the trust and confidence of our stakeholders by taking appropriate technical and organizational measures for maintaining information security and data privacy. Our cybersecurity program allows us to assess, identify and manage information security and cybersecurity threats through robust risk assessment and prevention measures to facilitate communication, training, awareness and incident response procedures. We have established policies and procedures to ensure timely and appropriate notifications to relevant parties and regulators as required for cybersecurity threats and data breaches.

We have continued to expand investments in information security, including additional end-user training, using layered defenses, identifying and protecting critical assets, strengthening monitoring and alerting mechanisms, and engaging experts. Information security awareness trainings are a compliance requirement for employees. We regularly test defenses by performing simulations and drills at both a technical level (including through penetration tests) and by reviewing our operational policies and procedures with third-party experts.

Our data breach response plan designates an incident response team comprised of senior leaders within information technology, finance, legal and compliance functions to ensure timely diagnosis and mitigation of cyber events. The incident response team is responsible for determining whether a cybersecurity incident is material and requires current reporting pursuant to SEC Form 8-K Item 1.05 (Material Cybersecurity Incidents). In conducting the assessment, the team considers factors including, but not limited to: the probability of an adverse outcome; the potential significance of loss; the nature and extent of harm to individuals, customers, and vendors; the nature and extent of harm to our competitive position or reputation; and the possibility of litigation or regulatory investigations.

To ensure our cybersecurity programs adhere to industry best practices, we have adopted the National Institute of Standards and Technology (NIST) Cybersecurity Framework and subscribed to the principles of Zero Trust. Both models represent recognized best practices for security and the capabilities needed to identify, protect, detect and respond to cybersecurity risks and challenges. We evaluate our physical, electronic and administrative safeguards on a continuous basis to ensure they are effectively deployed across the business.

We also work with trusted and recognized third parties to help us assess, strengthen and monitor the operations of our information security program. We engage third-party services to conduct evaluations of our security controls, whether through penetration testing, independent audits or consulting on best practices to address new challenges. These evaluations include testing both the design and operational effectiveness of security controls. We also share and receive threat intelligence with information sharing and analysis centers and cybersecurity associations.

Assessing, identifying and managing cybersecurity related risks are integrated into our overall enterprise risk management (ERM) process, which, evaluates and assesses top risks to the enterprise on a periodic basis. To the extent the ERM process identifies a heightened cybersecurity related risk, risk owners are assigned to develop risk mitigation plans, which are then tracked to completion. The ERM process's risk assessment is presented to the Board of Directors. In

addition to assessing our own cybersecurity preparedness, we also consider cybersecurity risks associated with the use of third-party software and service providers. Such providers are subject to security risk assessments at time of onboarding, contract renewal and upon detection of an increase in risk profile. On an annual basis we review System and Organization Controls (SOC) 1 or SOC 2 reports for third-party service providers deemed significant to our environment.

Despite the Company's security measures and programs, our information technology and infrastructure are vulnerable to cybersecurity incidents, intrusions and attacks, any of which could have a materially adverse effect on our business, financial results, revenues and competitive position. See "Part I —Item 1A. Risk Factors" for further discussion of these risks.

Governance

Our Board of Directors is responsible for the oversight of cybersecurity risks and threats. The Board has delegated certain information security and data privacy oversight to the Audit Committee and the Compliance, Quality and Risk Committee (CQRC) of the Board. The CQRC oversees compliance with information security and data privacy laws, while the Audit Committee has oversight responsibility for cybersecurity risks related to accounting, audit and financial matters. The CQRC, Audit Committee and management report to the Board on a periodic basis regarding our information security and data privacy functions, including any cybersecurity threats.

The CQRC is responsible for oversight of our cybersecurity policy, procedures and risk mitigation. Our information technology (IT) leadership briefs the CQRC on a periodic basis on information security matters, including the current cybersecurity landscape, progress on information security initiatives and accomplishments, and reports on material cybersecurity incidents, as needed. Our enterprise risk management team reports address the Company's cybersecurity risk management processes. Our Chief Legal Officer oversees the management of our ERM program and has over a decade of experience in risk management. The Chair of the CQRC is an expert in enterprise risk assessment and mitigation and holds a CERT Certificate in Cybersecurity Oversight.

The Audit Committee is responsible for reviewing our disclosures on cybersecurity risk management, strategy and governance in our Annual Report on Form 10-K. The Audit Committee assists in determining materiality for timely reporting of cybersecurity incidents and is notified immediately if the incident response team has assessed that a material event may have occurred that may require filing an SEC Current Report on Form 8-K.

The Vice President of Information Technology, assisted by our broader IT team, is responsible for setting the strategic direction and priorities for information security, coordination of enterprise-wide compliance with information security policies and procedures, as well as day-to-day information security management. Our Vice President of IT has served in various roles in information technology and information security for over 20 years. Our information security team has an aggregate of more than 60 years of experience in information technology roles across several industries.

ITEM 2. PROPERTIES

The Company operates in the following principal locations:

- AtriCure Corporate Headquarters Campus; Mason, Ohio – This campus encompasses three locations in Mason, Ohio, including our global headquarters facility that contains the Company's administrative, clinical, regulatory, engineering, product development, quality and manufacturing functions. The headquarters facility is approximately 106,000 square feet. The Mason Distribution Warehouse is primarily used for warehousing and distribution activities and is approximately 40,000 square feet. The Mason Manufacturing Building is approximately 37,000 square feet and is used for manufacturing, quality and engineering activities.
- Minnetonka, Minnesota – This location includes administrative, clinical, regulatory and product development space. The office is approximately 32,000 square feet.
- Pleasanton, California – This location is used for product development activities and is approximately 6,000 square feet.
- Amsterdam, Netherlands – This location houses administrative functions for our international operations. The space is approximately 9,000 square feet.
- Hertogenbosch, Netherlands – This location is used for service activities and is approximately 19,000 square feet.

The Company believes that its existing facilities are adequate to meet its immediate needs and that suitable additional space will be available in the future on commercially reasonable terms as needed.

ITEM 3. LEGAL PROCEEDINGS

We may from time to time become a party to additional legal proceedings that arise in the ordinary course of business. See Note 10 – Commitments and Contingencies to our Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

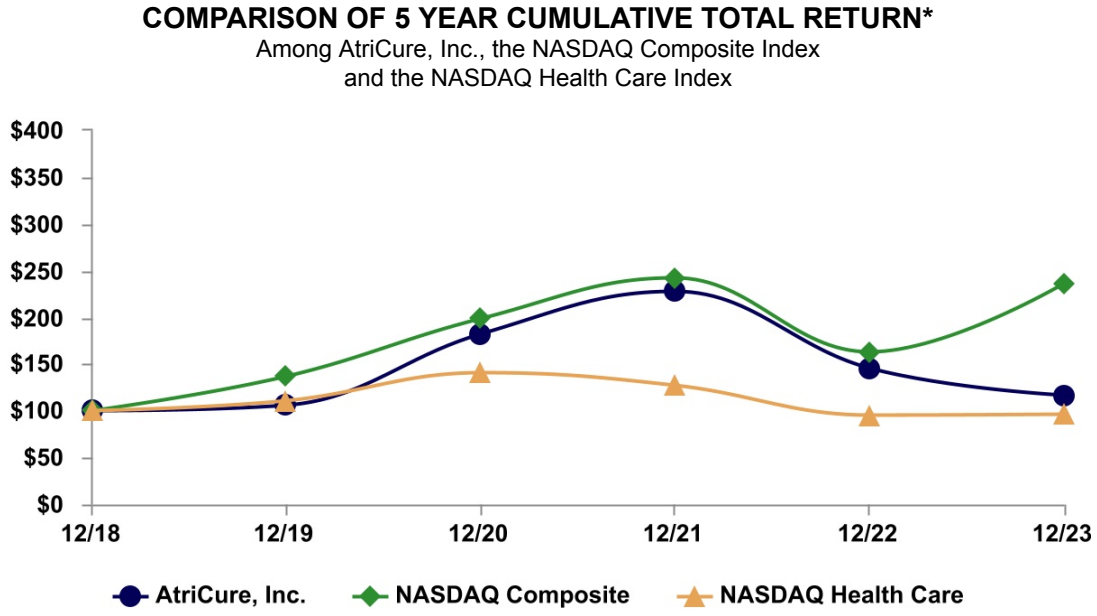
ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common Stock Market Price

Our common stock is traded on the NASDAQ Global Market under the symbol "ATRC." As of February 13, 2024, the closing price of our common stock on the NASDAQ Global Market was $31.71 per share, and the number of stockholders of record was 67.

Performance Graph

The following graph compares the cumulative total stockholder return on our common stock with the cumulative total return of the NASDAQ Composite Index ("NASDAQ Composite") and the NASDAQ Health Care Index ("NASDAQ Health Care") for the period beginning on December 31, 2018, and ending on December 31, 2023.



*$100 invested on 12/31/18 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

This graph assumes that $100.00 was invested on December 31, 2018, in our common stock, the NASDAQ Composite Index and the NASDAQ Health Care Index, and that all dividends are reinvested. No dividends have been declared or paid on our common stock. Stock performance shown in the above chart for our common stock is historical and should not be considered indicative of future price performance.

	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023
AtriCure, Inc.	$ 100.00	$ 106.24	$ 181.93	$ 227.22	$ 145.03	$ 116.63
NASDAQ Composite	$ 100.00	$ 136.69	$ 198.10	$ 242.03	$ 163.28	$ 236.17
NASDAQ Health Care	$ 100.00	$ 110.75	$ 140.85	$ 126.71	$ 95.29	$ 96.06

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

(Dollar and share amounts referenced in this Item 7 are in thousands, except per share amounts.)

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the accompanying Consolidated Financial Statements and notes thereto contained in Item 8, "Financial Statements and Supplementary Data," to provide an understanding of our results of operations, financial condition and cash flows. This section of this Form 10-K generally discusses 2023 and 2022 items and year-to-year comparisons between 2023 and 2022. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. The actual results may differ from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those set forth under Item 1A "Risk Factors," the cautionary statement regarding forward-looking statements at the beginning of Part I and elsewhere in this Form 10-K.

Year Ended December 31, 2022 compared to December 31, 2021

For a comparison of our results of operations for the years ended December 31, 2022 and December 31, 2021, see "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our annual report on Form 10-K for the year ended December 31, 2022, filed with the SEC on February 22, 2023.

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib), left atrial appendage (LAA) management and post-operative pain management. Our ablation and left atrial appendage management (LAAM) products are used by physicians during both open-heart and minimally invasive procedures. In open-heart procedures, the physician is performing heart surgery for other conditions, and our products are used in conjunction with (or "concomitant" to) such a procedure. Minimally invasive procedures are performed on a standalone basis, and often include multi-disciplinary or "hybrid" approaches, combining surgical procedures using AtriCure ablation and LAAM products with catheter ablation procedures performed by electrophysiologists. Our pain management devices are used by physicians to freeze nerves during cardiothoracic or thoracic surgical procedures. We anticipate that substantially all of our revenue for the foreseeable future will relate to products we currently sell or are in the process of developing.

We sell our products to medical centers through our direct sales force in the United States, Germany, France, the United Kingdom, the Benelux region, Australia and Canada. We also sell our products to distributors who in turn sell our products to medical centers in other markets. Our business is primarily transacted in U.S. Dollars; direct international sales transactions are transacted in Euros, British Pounds, Australian Dollars or Canadian Dollars.

In 2023, we realized significant global revenue growth and continued our strategic initiatives of product innovation, clinical science and expanding physician awareness and adoption through superior training and education. Our worldwide revenues for the year ended December 31, 2023 of $399,245 was an increase of 20.8% over the prior year driven by growing adoption across key product lines. Historically there have been limited competitors in our key markets, but we have begun to see more entrants that may cause variability in 2024 results. Highlights of the strategic and operational advancements in 2023 include:

PRODUCT INNOVATION. We received final labeling approval for the next generation EPi-Sense ST device and began a limited launch evaluation in the fourth quarter of 2022, followed by full product launch in the second quarter of 2023. In October 2023, we received clearance for our next generation cryoSPHERE probe for pain management and expect to launch in the first quarter of 2024. Additionally, we completed several 510k submissions to FDA for new products in development. We also continue to make significant progress on European Medical Device Regulation (EU MDR) clearance submissions for our products. As of the second quarter of 2023, all of our products have been submitted to our notified body under EU MDR. These activities are in addition to several research and development programs currently underway.

CLINICAL SCIENCE. We continue to invest in studies to expand labeling claims, support various indications for our products and gather clinical data regarding our products.

LeAAPS. The Left Atrial Appendage Exclusion for Prophylactic Stroke Reduction (LeAAPS) IDE clinical trial is designed to evaluate the effectiveness of prophylactic LAA exclusion using the AtriClip LAA Exclusion System for the prevention of ischemic stroke or systemic arterial embolism in cardiac surgery patients without pre-operative AF diagnosis who are at risk for these events. This prospective, multicenter, randomized trial evaluates safety at 30 days post-procedure to demonstrate no increased risk with LAA exclusion during cardiac surgery, and efficacy over a minimum follow-up of five years post procedure. The trial provides for enrollment of up to 6,500 subjects at up to 250 sites worldwide. In January 2023, the first patient was enrolled in the trial, and we ended 2023 with nearly 1,400 patients enrolled. Site initiation and enrollment is ongoing.

ICE-AFIB. Trial enrollment was completed in the second quarter of 2023 for the ICE-AFIB clinical trial, which is designed to study the safety and efficacy of our cryoICE® system for persistent and long-standing persistent Afib treatment during concomitant on-pump cardiac surgery. The trial provided for enrollment of up to 150 patients at up to 20 sites in the United States. Patient follow-up for twelve months post ablation required by the study protocol remains ongoing.

CEASE-AF. During the second quarter of 2023, results from our CEASE-AF trial were presented at the European Heart Rhythm Association meeting. CEASE-AF is a prospective, multi-center randomized control trial for persistent and long-standing persistent Afib treatment that demonstrated superior freedom from atrial arrhythmias for staged hybrid ablation compared to endocardial catheter ablation.

DEEP AF. During the fourth quarter of 2023, 12-month follow-up results of enrolled patients from our DEEP AF IDE trial were presented at the American Heart Association meeting. The DEEP AF IDE pivotal trial evaluated the safety and efficacy of the AtriCure Bipolar System when used in a staged approach where a minimally invasive surgical ablation procedure is first performed. The patient undergoes the endocardial catheter procedure approximately 91-120 days later. The results from this single arm study for persistent and long-standing persistent Afib treatment demonstrated superior freedom from atrial arrhythmias for staged hybrid ablation compared to a pre-specified performance goal.

TRAINING. Our professional education and marketing teams conduct virtual and in-person training programs for physicians and healthcare professionals. These training methods ensure invaluable access to continuing education and awareness of our products and related procedures. During 2023, we launched new training courses for Advanced Practice Providers, pain management in pectus procedures, as well as a best practice course for developing arrhythmia programs, with a primary focus on Hybrid therapies. These trainings allow for collaborative, hands-on engagement with our physician partners and other healthcare professionals. Additionally, our professional education courses continue to benefit from use of inanimate models or synthetic cadavers, known as CADets. These reusable CADets provide a sustainable alternative to the use of animals or cadavers, in addition to reducing spend on training programs.

SOCIETY GUIDELINES. In 2023, the American College of Cardiology (ACC), American Heart Association (AHA), American College of Clinical Pharmacy (ACCP), and HRS released Guidelines for Diagnosis and Management of Atrial Fibrillation, and they upgraded Left Atrial Appendage Management to the highest recommendation of Class 1 and now include Hybrid AF™ Therapy as a Class 2 recommendation. These societal guidelines are reflective of the scientific evidence suggesting that surgical and hybrid ablation is safe and effective for patients who have Afib.

Results of Operations

Year Ended December 31, 2023 compared to December 31, 2022

The following table sets forth, for the periods indicated, our results of operations expressed as dollar amounts and as percentages of total revenue:

	Year Ended December 31,			
	2023		2022	
	Amount	% of Revenue	Amount	% of Revenue
Revenue	$ 399,245	100.0 %	330,379	100.0 %
Cost of revenue	98,875	24.8	84,439	25.6
Gross profit	300,370	75.2	245,940	74.4
Operating expense (benefit):				
Research and development expenses	73,915	18.5	57,337	17.4
Selling, general and administrative expenses	253,138	63.4	231,272	70.0
Total operating expenses	327,053	81.9	288,609	87.4
Loss from operations	(26,683)	(6.7)	(42,669)	(12.9)
Other expense, net	(3,164)	(0.8)	(3,529)	(1.1)
Loss before income tax expense	(29,847)	(7.5)	(46,198)	(14.0)
Income tax expense	591	0.1	268	0.1
Net loss	$ (30,438)	(7.6) %	$ (46,466)	(14.1)%

Revenue. The following table sets forth, for the periods indicated, our revenue by product type and geography expressed as dollar amounts and the corresponding change in such revenues between periods, in both dollars and percentages:

	Year Ended December 31,		Change	
	2023	2022	Amount	%
Open ablation	$ 105,287	$ 86,119	$ 19,168	22.3 %
Minimally invasive ablation	44,577	38,553	6,024	15.6 %
Pain management	49,199	39,974	9,225	23.1 %
Appendage management	134,481	112,555	21,926	19.5 %
Total United States	$ 333,544	$ 277,201	$ 56,343	20.3 %
Total International	65,701	53,178	12,523	23.5 %
Total Revenue	$ 399,245	$ 330,379	$ 68,866	20.8 %

Worldwide revenue increased 20.8% (20.6% on a constant currency basis). In the United States, we experienced growth in all key product lines as a result of deepening market penetration and expanding physician adoption. Key products contributing to the increase in revenue in the United States were:

- the ENCOMPASS® clamp in open ablation,
- Hybrid AF™ Therapy procedures using the EPi-Sense System in minimally invasive ablation,
- the cryoSPHERE® probe for post-operative pain management and
- the AtriClip® Flex·V® for appendage management.

International revenue increased 23.5% (22.1% on a constant currency basis), across all franchises and major geographic regions.

Revenue reported on a constant currency basis is a non-GAAP measure calculated by applying previous period foreign currency exchange rates, which are determined by the average daily exchange rate, to each of the comparable periods. Revenue is analyzed on a constant currency basis to better measure the comparability of results between periods. Because changes in foreign currency exchange rates have a non-operating impact on revenue, we believe that evaluating growth in revenue on a constant currency basis provides an additional and meaningful assessment of revenue to both management and investors.

Cost of revenue and gross margin. Cost of revenue increased $14,436 primarily reflecting higher sales volumes. The gross margin increase of 80 basis points was driven by favorable production efficiencies, partially offset by less favorable geographic and product mix.

Research and development expenses. Research and development expenses increased $16,578, or 28.9%. Expansion of product development, regulatory and clinical teams resulted in $7,413 of additional personnel costs, including variable compensation and share-based compensation. Clinical trial expenses increased $6,667 due to strong enrollment activity in the LeAAPS clinical trial throughout the year. Additionally, our expanding product pipeline and domestic and international regulatory submissions drove a $2,389 increase in spending.

Selling, general and administrative expenses. Selling, general and administrative expenses increased $21,866, or 9.5%. Personnel costs increased $26,971 as a result of growth in headcount, variable compensation and share-based compensation. Trade shows and marketing activities increased $1,538 and other administrative and operating expenses increased $2,274 as compared to the prior year. This increase was offset by a $4,019 decrease in training costs as a result of growing efficiencies and enhancements to our global training programs and a net gain of $4,412 from non-recurring legal settlements during the first half of 2023. Legal settlement activity included a $7,500 gain from proceeds on a legal matter settled during the first quarter of 2023, partially offset by a $3,088 charge for settlement of an intellectual property matter during the second quarter of 2023. See Note 10 – Commitments and Contingencies for further information.

Other income and expense. Other income and expense consists primarily of net interest expense and net foreign currency transaction losses. Net interest expense was $3,133 for 2023 and $2,992 for 2022.

Liquidity and Capital Resources

As of December 31, 2023, we had cash, cash equivalents and investments of $137,285 and borrowing capacity of approximately $28,750 under the SVB Credit Facility. As a result of the new asset-based credit agreement with JPMorgan Chase Bank, N.A. entered into on January 5, 2024, unused borrowing availability increased to approximately $61,885 (see Note 8 – Indebtedness for related discussion). All cash equivalents and investments and most of our operating cash are held in United States financial institutions. A minor portion of our cash is held in foreign banks to support our international operations. We had net working capital of $191,677 and an accumulated deficit of $357,057 as of December 31, 2023.

Uses of liquidity and capital resources. Our executive officers and Board of Directors review our funding sources and future capital requirements in connection with our annual operating plan and periodic updates to the plan. Our principal cash requirements include costs of operations, capital expenditures, debt service costs and other contractual obligations. Our future capital requirements depend on a number of factors, including, without limitation: market acceptance of our current and future products; investments in working capital; costs to develop and support our products, including professional training; costs to expand and support our sales and marketing efforts; operating and filing costs relating to changes in regulatory policies or laws; costs for clinical trials and to secure regulatory approval for new products; costs to prosecute, defend and enforce our intellectual property rights; maintenance and enhancements to our information systems and security; and possible acquisitions and joint ventures, including potential business integration costs. We continue to evaluate additional measures to maintain financial flexibility, and we will continue to closely monitor macroeconomic conditions including, but not limited to, inflationary pressures, rising interest rates, and fluctuations in currency exchange rates that may impact our liquidity and access to capital resources.

Credit facility. As of December 31, 2023, we had a Loan and Security Agreement with Silicon Valley Bank (SVB), (SVB Loan Agreement). The SVB Loan Agreement provides for a $60,000 term loan, with an option to make available an additional $30,000 in term loan borrowings, and a $30,000 revolving line of credit. The Loan Agreement has a five-year term and expires November 2026. The term loan accrues interest at the Prime Rate plus 1.25% and is subject to an additional 3.00% fee on the term loan principal amount at maturity. We had unused borrowing capacity of approximately $28,750 under our revolving credit facility.

As of January 5, 2024, we entered into an asset-based credit agreement with JPMorgan Chase Bank, N.A. as Administrative Agent, JPMorgan Chase Bank, N.A. and Silicon Valley Bank, a division of First-Citizen Bank and Trust Company, as Joint Lead Arrangers and Joint Bookrunners (Credit Agreement) that provides for a $125,000 asset-based revolving credit facility (ABL Facility), with an option to increase the revolving commitment by an additional $40,000. A portion of the ABL facility, limited to $5,000, is available for the issuance of letters of credit. The Credit Agreement has a three-year term and expires January 5, 2027. Amounts available to be drawn from time to time under the ABL Facility are determined by calculating the applicable borrowing base, which is based upon applicable percentages of the values of eligible accounts receivable, eligible inventory, eligible liquid assets, less reserves as determined by the Administrative Agent, all as specified in the Credit Agreement. The borrowings bear interest at a rate per annum equal to, at the Company's election: (i) an alternate base rate (ABR) plus an applicable margin or (ii) an adjusted term secured overnight financing rate (SOFR) plus an applicable margin. At the time of closing, the Company borrowed $61,865 and had unused borrowing availability of approximately $61,885. The proceeds of the ABL Facility were used to terminate the Company’s indebtedness under the SVB Loan Agreement. As a result of the new Credit Agreement, the $60,000 borrowings outstanding under the SVB Loan Agreement as of December 31, 2023 are classified as noncurrent in the Consolidated Balance Sheet.

Our corporate headquarters lease agreement requires a $1,250 letter of credit which renews annually and remains outstanding as of December 31, 2023.

For additional information on the terms and conditions, as well as applicable interest and fee payments, see Note 8 – Indebtedness.

Capital Expenditures. We incur capital expenditures on an ongoing basis to continue investment in our growth and our ability to better serve our customers. Throughout 2021 through 2023, we continued expansion and renovation of our manufacturing and engineering facilities in our Mason, Ohio campus.

Other Contractual Obligations. Our future obligations include both current and long-term obligations. In 2022, the Company entered into a clinical trial management agreement for the LeAAPS clinical trial. The terms of the agreement require we make milestone payments upon achievement of various enrollment and project milestones over the estimated ten-year term, yet the agreement may be terminated early for any reason. Furthermore, we incur additional variable costs, including pass through costs from clinical trial sites. We expect to disburse between $14,000 and $17,000 of fixed and

variable costs based on estimated achievement of milestone payments, site initiation and trial enrollment within the next twelve months.

We have operating and finance leases primarily for our corporate offices, manufacturing and warehouse facilities and automobiles. Our finance leases consist primarily of principal and interest payments related to our Mason, Ohio headquarters building. As of December 31, 2023, we have current finance lease obligations of $1,086 and long-term obligations of $8,061. Our operating leases for office and warehouse space includes current obligations of $1,447 and long-term obligations of $3,307. For additional information, see Note 9 – Leases.

We have contractual obligations for contingent consideration payments related to the SentreHEART acquisition. Subject to the terms and conditions of the SentreHEART merger agreement, such contingent consideration would be paid in AtriCure common stock and cash, up to a specified maximum number of shares. As of December 31, 2023, we believe the likelihood of payment is remote, and the estimated fair value of the contingent consideration is $0. See Note 2 – Fair Value.

Sources of liquidity. We believe that our current cash, cash equivalents and investments, along with the cash we expect to generate or use for operations or access via our Credit Agreement, will be sufficient to meet our anticipated cash needs for working capital and capital expenditures for at least the next twelve months. However, we have on file with the SEC a shelf registration statement which allows us to sell any combination of debt securities, common stock, preferred stock, warrants, depository shares and units in one or more offerings should we choose to do so in the future. We expect to maintain the effectiveness of the shelf registration statement for the foreseeable future.

If our sources of cash are insufficient to satisfy our liquidity requirements, we may seek to sell additional equity or debt securities or obtain a revised or additional credit facility. The sale of additional equity or convertible debt securities could result in dilution to our stockholders. If additional funds are raised through the issuance of debt securities, these securities would have rights senior to those associated with our common stock and could contain covenants that would restrict our operations. Finally, our Credit Agreement requires compliance with certain financial and other covenants. If we are unable to maintain these financing arrangements, we may be required to reduce the scope of our planned research and development, clinical activities and selling, training, education and marketing efforts.

Historical Cash Flow Activity. The following table summarizes our consolidated cash flow activities:

	Years Ended December 31,		
	2023	2022	Change
Net cash provided by (used in) operating activities	$ 4,484	$ (22,141)	$ 26,625
Net cash provided by investing activities	21,817	44,006	(22,189)
Net cash used in financing activities	(32)	(7,059)	7,027

Cash flows provided by (used in) operating activities. Net cash provided by operating activities increased $26,625 in 2023 as compared to 2022, largely reflecting the improvement in operating results of $16,028 driven by higher sales, improvements to gross and operating margin and a net gain from legal settlements. Cash used for working capital remained relatively flat year over year, with increased investment in inventories largely offset by increased accruals for annual variable compensation payments due to improved operating performance.

Cash flows provided by investing activities. Net cash provided by investing activities decreased by $22,189 in 2023 compared to 2022, reflecting the $30,000 acquisition of intellectual property, partially offset by a $4,883 decrease in purchases of property and equipment following our 2022 manufacturing facilities expansion and $2,928 increase in net maturities of available-for-sale securities.

Cash flows used in financing activities. Net cash from financing activities increased by $7,027 in 2023 compared to 2022, reflecting savings of $5,644 due to fewer shares repurchased at a lower value for payment of taxes on stock awards and an increase of $1,536 of proceeds from the employee stock purchase plan and stock option exercise activity.

Inflation

Inflationary pressures may have an adverse impact on our results of operations or financial condition in the foreseeable future. Inflation has impacted our operating costs throughout 2023 and 2022. Continued increases in our cost of revenue may affect our ability to maintain our gross margin if the selling prices of our products do not increase commensurately, while continued increases in our operating expenses may adversely affect our operating results and the

ability to make discretionary investments. We will continue to monitor the impact of inflation on our cost of revenue and operating expenses.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets and liabilities, revenue and expenses, and disclosures of contingent assets and liabilities at the date of the financial statements. On a periodic basis, we evaluate our estimates, using authoritative pronouncements, historical experience and other assumptions as the basis for making estimates. We have described our significant accounting policies in Note 1 – Description of Business and Summary of Significant Accounting Policies to our Consolidated Financial Statements included in this Form 10-K.

We believe the following critical accounting policies involve a significant level of estimation uncertainty and judgments that are reasonably likely to have a material impact on our Consolidated Financial Statements. We base our judgments and estimates on historical experience, current conditions and other reasonable factors. Actual results could differ from those estimates under different assumptions or conditions.

***Revenue Recognition*—**Revenue is generated from the sale of medical devices. We recognize revenue in an amount that reflects the consideration we expect to be entitled to in exchange for those devices when control of promised devices is transferred to customers. We account for revenue in accordance with FASB ASC 606, “Revenue from Contracts with Customers”. Significant judgments and estimates involved in the Company’s recognition of revenue include the estimation of a provision for returns. We estimate the provision for sales returns and allowances using the expected value method based on historical experience and other factors that we believe could impact our expected returns, including defective or damaged products and invoice adjustments. In the normal course of business, we are not obligated to accept product returns unless a product is defective as manufactured, and we do not provide customers with the right to a refund.

Inventories—Our inventories are stated at the lower of cost or net realizable value based on the first-in, first-out cost method (FIFO) and consist of raw materials, work in process and finished goods. Our industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of product approvals, variability in product launch strategies and variation in product sales all impact inventory reserves for excess, obsolete and expired products. An increase to inventory reserves results in a corresponding increase in cost of revenue. Inventories are written off against the reserve when they are physically disposed.

***Share-Based Employee Compensation*—**We estimate the fair value of performance share awards with a performance condition initially based on the closing stock price on the date of grant assuming the performance goal will be achieved. Such performance share awards have specified performance targets based on the compound annual growth rate (CAGR) of our revenue over a three-year performance period. With respect to these performance share awards, the number of shares that vest and are issued to the recipient is based upon revenue performance over the performance period. We may adjust the expense over the performance period based on changes to estimates of performance target achievement. If such goals are not met or service is not rendered for the requisite service period, no compensation cost is recognized, and any recognized compensation cost from prior periods will be reversed.

***Income Taxes*—**Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities from changes in tax rates is recognized in the period that includes the enactment date.

Our estimate of the valuation allowance for deferred tax assets requires significant estimates and judgments about our future operating results. Deferred income tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more-likely-than-not that a deferred tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. We evaluate deferred income tax assets on an annual basis to determine if valuation allowances are required by considering all available evidence. Deferred income tax assets are realized by having sufficient future taxable income to allow the related tax benefits to reduce taxes otherwise payable. The sources of taxable income that may be available to realize the benefit of deferred tax assets are future taxable income, future reversals of existing taxable temporary differences, taxable income in prior carryforward years and tax planning strategies that are both prudent and feasible. In evaluating the need for a valuation allowance, the existence of cumulative losses in recent years is

significant objectively verifiable negative evidence that must be overcome by objectively-verifiable positive evidence to avoid the need for a valuation allowance. Our valuation allowance offsets substantially all net deferred income tax assets as it is more-likely-than-not that the benefit of such deferred income tax assets will not be recognized in future periods.

Recent Accounting Pronouncements

See Note 1 – Description of Business and Summary of Significant Accounting Policies to the Consolidated Financial Statements in Item 8 of Part II for more information regarding recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

(Amounts referenced in this Item 7A are in thousands, except per share amounts.)

The Company is exposed to various market risks, which include potential losses arising from adverse changes in market rates and prices, such as foreign exchange fluctuations and changes in interest rates.

Credit and Interest Rate Risk

The Company invests its cash primarily in money market accounts, U.S. government and agency obligations, corporate bonds, and asset-backed securities. Although the Company believes it has invested in a conservative manner, with preservation being the primary investment objective, the value of the securities held will fluctuate with changes in financial markets including, among other things, changes in interest rates, credit quality and general volatility. This risk is managed by investing in high quality investment grade securities to maintain liquidity and preserve principal without significantly increasing risk.

Financial instruments that potentially subject the Company to credit risk consist of cash equivalents and investments in corporate bonds. The Company maintains deposit accounts in federally insured financial institutions in excess of federally insured limits. Cash held in financial institutions in foreign countries is not significant. Although these depository accounts may exceed government insured depository limits, we have evaluated the credit worthiness of these applicable financial institutions and determined the risk of material financial loss due to the exposure of such credit risk to be minimal. The Company also maintains investments in money market funds that are not federally insured.

We are subject to interest rate risk as rate fluctuations impact cash payments for outstanding borrowings. Outstanding amounts under the Credit Agreement bear interest at a rate per annum equal to, at the Company's election: (i) an alternate base rate (ABR) plus an applicable margin or (ii) an adjusted term secured overnight financing rate (SOFR) plus an applicable margin. Alternate base rate is equal to the greatest of Prime, the NYFRB Rate plus 0.50% and Adjusted Term SOFR Rate plus 1.00%. The applicable margin spread is 1.50% to 2.75%, as determined by the average excess availability of the aggregate revolving commitment. All swingline loans bear interest at a rate per annum equal to the ABR plus the applicable margin under the Credit Agreement. Interest periods for SOFR Term Benchmark borrowings range from one month, three months or six months, at the Company's election. Interest rate risk is highly sensitive due to many factors, including United States monetary and tax policies and United states and international economic factors beyond our control.

Foreign Currency Exchange Rate Risk

We sell our products to medical centers through our direct sales force in the United States, Germany, France, the United Kingdom, Australia and Canada. We also sell our products to distributors who in turn sell our products to medical centers in Japan, China and other international markets. Our business is primarily transacted in U.S. Dollars; direct international sales transactions are transacted in Euros, British Pounds, Australian Dollars or Canadian Dollars. Sales to international distributors outside of Europe are under agreements primarily denominated in U.S. Dollars. If products are priced in U.S. Dollars and competitors price their products in the local currency, an increase in the relative strength of the U.S. Dollar could result in the Company’s price not being competitive in a market where business is not transacted in U.S. Dollars.

Products sold by AtriCure Europe, B.V. and its subsidiaries are primarily denominated in Euros or British Pounds. European product sales accounted for 9.4% and 9.0% of the Company’s total revenue for 2023 and 2022. Accordingly, the Company is exposed to exchange rate fluctuations between the Euro and the U.S. Dollar and between the British Pound and the Euro. To a lesser extent, the Company is also exposed to exchange rate fluctuations between the Australian and Canadian Dollars to the U.S. Dollar. For 2023 and 2022, foreign currency transaction losses of $(101) and $(559) were recorded primarily in connection with settlements of the intercompany balances and invoices transacted in British Pounds. For revenue denominated in Euros, if there is an increase in the rate at which Euros are exchanged for U.S. Dollars, it will

require more Euros to equal a specified amount of U.S. Dollars than before the rate increase. In such cases, the Company will receive less in U.S. Dollars than was received before the rate increase went into effect. The Euro to U.S. Dollar conversion rate fluctuations may impact our reported revenue and expenses.

In 2022, we entered into a clinical trial management agreement for the LeAAPS clinical trial. The terms of the agreement require we make fixed milestone payments upon achievement of various enrollment and project milestones over the estimated ten-year term. Additional variable costs, including pass through costs incurred at clinical trial sites, will be billed to us by the contracted party. Fixed milestone payments are denominated in Canadian Dollars, while variable pass-through fees incurred at clinical trial sites outside the United States may be billed in U.S. Dollars or other local currencies. Fluctuations in the conversation rates of the U.S. Dollar to the Canadian Dollar and local currencies of international trial sites may impact the cash outlay required for future milestone payments and variable pass-through costs under the clinical trial management agreement.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

ATRICURE, INC. AND SUBSIDIARIES
INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of
AtriCure, Inc.

Opinion on the Financial Statements
We have audited the accompanying consolidated balance sheets of AtriCure, Inc. and subsidiaries (the "Company") as of December 31, 2023 and 2022, the related consolidated statements of operations and comprehensive (loss) income, stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 16, 2024, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Valuation of Performance Share Awards with a Market Condition - Refer to Note 14 to the financial statements

Critical Audit Matter Description

Performance share awards (PSAs) granted in 2023 have two performance targets measured at the end of the three-year performance period: (i) the Company's revenue compound annual growth rate, a performance condition; and (ii) relative total shareholder return (TSR), a market condition. The performance and market condition payouts are determined independently.

The number of PSAs with a market condition that vest and are issued to the recipient is based upon the Company's TSR relative to the TSR of the selected market index at the end of the three-year performance period. A Monte Carlo simulation was performed to estimate the fair value on the grant date, with associated share-based compensation expense recognized over the requisite service period as the employee renders service.

The determination of the fair value on the date of grant is affected by the stock price of the Company and the market index, as defined by the award agreement, at the beginning of the service period and grant date, the expected stock price volatility of the Company and the market index over the performance period, the risk-free interest rate, and the correlation coefficient of the daily returns for the Company and the market index over the performance period.

Given the level of judgment involved by management, including the use of a specialist, to determine the grant date fair value of the PSAs with a market condition, audit procedures required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the Company's determination of the grant date fair value of the PSAs with a market condition included the following, among others:

- We inquired with management regarding the key valuation assumptions and the Monte Carlo simulation methodology used in the determination of the grant date fair value of the PSAs.
- We tested the design and operating effectiveness of the Company's internal controls over the determination of the grant date fair value of the PSAs.
- We tested the accuracy of the data used in measuring the awards by agreeing the underlying inputs, such as grant date, share price, and vesting conditions, among others, back to source documents, such as compensation committee minutes or PSA agreements.
- With the assistance of our fair value specialists, we evaluated management's valuation of PSAs with a market condition by:
  - Evaluating the Monte Carlo simulation methodology and the reasonableness of the valuation assumptions, including the risk-free interest rate, expected volatility, and the correlation coefficients.
  - Independently calculating a fair value estimate for the market condition PSAs using the underlying PSA agreement and independently calculated valuation inputs.

/s/ Deloitte & Touche LLP

Cincinnati, Ohio
February 16, 2024

We have served as the Company's auditor since 2002.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2023 and 2022
(In Thousands, Except Per Share Amounts)

	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	$ 84,310	$ 58,099
Short-term investments	52,975	63,014
Accounts receivable, less allowance for credit losses of $500 and $230	52,501	42,693
Inventories	67,897	45,931
Prepaid and other current assets	8,563	5,477
Total current assets	266,246	215,214
Long-term investments	—	51,509
Property and equipment, net	42,435	38,833
Operating lease right-of-use assets	4,324	3,787
Intangible assets, net	63,986	39,339
Goodwill	234,781	234,781
Other noncurrent assets	2,160	1,985
Total Assets	$ 613,932	$ 585,448
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 27,354	$ 19,898
Accrued liabilities	44,682	33,022
Current maturities of debt and leases	2,533	5,472
Total current liabilities	74,569	58,392
Long-term debt	60,593	56,834
Finance lease liabilities	8,061	9,147
Operating lease liabilities	3,307	3,095
Other noncurrent liabilities	1,234	1,226
Total Liabilities	147,764	128,694
Commitments and contingencies (Note 10)		
Stockholders' Equity:		
Common stock, $0.001 par value, 90,000 shares authorized; 47,526 and 46,563 issued and outstanding	48	47
Additional paid-in capital	824,170	787,422
Accumulated other comprehensive loss	(993)	(4,096)
Accumulated deficit	(357,057)	(326,619)
Total Stockholders' Equity	466,168	456,754
Total Liabilities and Stockholders' Equity	$ 613,932	$ 585,448

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE (LOSS) INCOME
YEARS ENDED DECEMBER 31, 2023, 2022 and 2021
(In Thousands, Except Per Share Amounts)

	2023	2022	2021
Revenue	$ 399,245	$ 330,379	$ 274,329
Cost of revenue	98,875	84,439	68,469
Gross profit	300,370	245,940	205,860
Operating expenses (benefit):			
Research and development expenses	73,915	57,337	48,506
Selling, general and administrative expenses	253,138	231,272	204,649
Change in fair value of contingent consideration (Note 2)	—	—	(184,800)
Intangible asset impairment (Note 4)	—	—	82,300
Total operating expenses	327,053	288,609	150,655
(Loss) income from operations	(26,683)	(42,669)	55,205
Other income (expense):			
Interest expense	(6,925)	(4,986)	(4,918)
Interest income	3,792	1,994	466
Other	(31)	(537)	(366)
(Loss) income before income tax expense	(29,847)	(46,198)	50,387
Income tax expense	591	268	188
Net (loss) income	$ (30,438)	$ (46,466)	$ 50,199
Net (loss) income per share:			
Basic net (loss) income per share	$ (0.66)	$ (1.02)	$ 1.11
Diluted net (loss) income per share	$ (0.66)	$ (1.02)	$ 1.09
Weighted average shares outstanding:			
Basic	46,309	45,740	45,066
Diluted	46,309	45,740	46,039
Comprehensive (loss) income:			
Unrealized gain (loss) on investments	$ 2,898	$ (2,811)	$ (941)
Foreign currency translation adjustment	205	(337)	(319)
Other comprehensive income (loss)	3,103	(3,148)	(1,260)
Net (loss) income	(30,438)	(46,466)	50,199
Comprehensive (loss) income, net of tax	$ (27,335)	$ (49,614)	$ 48,939

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2023, 2022, and 2021
(In Thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	Shares	Amount				
Balance—December 31, 2020	45,346	$ 45	$ 742,389	$ (330,352)	$ 312	$ 412,394
Issuance of common stock under equity incentive plans	589	1	(9,837)	—	—	(9,836)
Issuance of common stock under employee stock purchase plan	81	—	4,181	—	—	4,181
Share-based employee compensation expense	—	—	28,078	—	—	28,078
Other comprehensive loss	—	—	—	—	(1,260)	(1,260)
Net income	—	—	—	50,199	—	50,199
Balance—December 31, 2021	46,016	$ 46	$ 764,811	$ (280,153)	$ (948)	$ 483,756
Issuance of common stock under equity incentive plans	426	1	(10,385)	—	—	(10,384)
Issuance of common stock under employee stock purchase plan	121	—	4,225	—	—	4,225
Share-based employee compensation expense	—	—	28,771	—	—	28,771
Other comprehensive loss	—	—	—	—	(3,148)	(3,148)
Net loss	—	—	—	(46,466)	—	(46,466)
Balance—December 31, 2022	46,563	$ 47	$ 787,422	$ (326,619)	$ (4,096)	$ 456,754
Issuance of common stock under equity incentive plans	811	1	(4,241)	—	—	(4,240)
Issuance of common stock under employee stock purchase plan	152	—	5,261	—	—	5,261
Share-based employee compensation expense	—	—	35,728	—	—	35,728
Other comprehensive income	—	—	—	—	3,103	3,103
Net loss	—	—	—	(30,438)	—	(30,438)
Balance—December 31, 2023	47,526	$ 48	$ 824,170	$ (357,057)	$ (993)	$ 466,168

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2023, 2022 and 2021
(In Thousands)

	2023	2022	2021
Cash flows from operating activities:			
Net (loss) income	$ (30,438)	$ (46,466)	$ 50,199
Adjustments to reconcile net (loss) income to net cash used in operating activities:			
Share-based compensation expense	35,728	28,771	28,078
Depreciation	9,460	8,057	7,534
Amortization of intangible assets	5,353	3,653	2,907
Amortization of deferred financing costs	486	507	759
Amortization of investments	632	1,478	2,482
Change in fair value of contingent consideration	—	—	(184,800)
Intangible asset impairment	—	—	82,300
Other non-cash adjustments	1,503	739	1,607
Changes in operating assets and liabilities:			
Accounts receivable	(9,872)	(8,989)	(10,087)
Inventories	(21,830)	(7,305)	(4,274)
Other current assets	(3,084)	(515)	(700)
Accounts payable	6,177	2,677	4,710
Accrued liabilities	11,562	(2,966)	8,271
Other noncurrent assets and liabilities	(1,193)	(1,782)	(2,766)
Net cash provided by (used in) operating activities	4,484	(22,141)	(13,780)
Cash flows from investing activities:			
Purchases of available-for-sale securities	—	(24,637)	(173,105)
Sales and maturities of available-for-sale securities	63,815	85,524	206,362
Purchases of property and equipment	(11,998)	(16,881)	(9,753)
Acquisition of intellectual property	(30,000)	—	—
Net cash provided by investing activities	21,817	44,006	23,504
Cash flows from financing activities:			
Proceeds from debt borrowings	—	—	5,000
Payments on debt and finance leases	(992)	(899)	(5,816)
Payment of debt fees	(60)	—	(1,171)
Proceeds from stock option exercises	2,316	1,816	8,175
Shares repurchased for payment of taxes on stock awards	(6,557)	(12,201)	(18,011)
Proceeds from issuance of common stock under employee stock purchase plan	5,261	4,225	4,181
Net cash used in financing activities	(32)	(7,059)	(7,642)
Effect of exchange rate changes on cash and cash equivalents	(58)	(361)	(372)
Net increase in cash and cash equivalents	26,211	14,445	1,710
Cash and cash equivalents—beginning of period	58,099	43,654	41,944
Cash and cash equivalents—end of period	$ 84,310	$ 58,099	$ 43,654
Supplemental cash flow information:			
Cash paid for interest	$ 6,376	$ 4,270	$ 4,223
Cash paid for income taxes, net of refunds	395	192	190
Non-cash investing and financing activities:			
Accrued purchases of property and equipment	1,427	272	1,552

See accompanying notes to consolidated financial statements.

1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of the Business—The "Company" or "AtriCure" consists of AtriCure, Inc. and its wholly-owned subsidiaries. The Company is a leading innovator in surgical treatments and therapies for atrial fibrillation (Afib), left atrial appendage (LAA) management and post-operative pain management, and sells its products to medical centers globally through its direct sales force and distributors.

Principles of Consolidation—The Consolidated Financial Statements include the accounts of AtriCure, Inc. and its wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

Cash and Cash Equivalents—The Company considers highly liquid investments with maturities of three months or less at the date of purchase as cash equivalents. Cash equivalents include demand deposits and money market funds with financial institutions.

Investments—The Company invests primarily in government and agency obligations, corporate bonds, commercial paper and asset-backed securities and classifies all investments as available-for-sale. Investments maturing in less than one year are classified as short-term investments. Investments are recorded at fair value, with unrealized gains and losses recorded as accumulated other comprehensive income (loss). Gains and losses are recognized using the specific identification method when securities are sold and are included in interest income.

Revenue Recognition—Revenue is generated primarily from the sale of medical devices. Sales of devices are categorized based on the type of product as follows: open ablation, minimally invasive ablation, pain management and appendage management. The Company recognizes revenue when control of promised devices is transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those devices. Revenue is recognized at a point in time upon shipment or delivery of products. Shipping and handling activities performed after control transfers to customers are considered activities to fulfill the promise to transfer the products. Revenue includes shipping and handling revenue of $1,860, $1,496 and $1,354 in the years ended December 31, 2023, 2022 and 2021.

Products are sold primarily through a direct sales force and through distributors in certain international markets. Terms of sale are generally consistent for both end-users and distributors, except that payment terms are generally net 30 days for end-users and net 60 days for distributors, with some exceptions. The Company does not maintain any post-shipping obligations to customers; no installation, calibration or testing of products is performed subsequent to shipment in order to render products operational. The Company expects to be entitled to the total consideration for the products ordered as product pricing is fixed, and there are no adjustments for a significant financing component as payment terms fall within one year. The Company excludes taxes assessed by governmental authorities on revenue-producing transactions from the measurement of the transaction price.

Costs associated with product sales include commission expense for product sales and royalties paid for sales of certain products. As revenue from product sales are satisfied at a point in time, commission expense and royalties are incurred at that point in time rather than over time. Commissions are included in selling, general and administrative expenses, while royalties are included in cost of revenue.

Significant judgments and estimates involved in the Company's recognition of revenue include the estimation of a provision for returns. In the normal course of business, the Company is not obligated to accept product returns unless a product is defective as manufactured. The Company does not provide customers with the right to a refund.

Sales Returns and Allowances—The Company maintains a provision for potential returns of defective or damaged products, and invoice adjustments. The Company adjusts the provision using the expected value method based on historical experience. Increases to the provision reduce revenue, and the provision is included in accrued liabilities.

Allowance for Credit Losses on Accounts Receivable—The Company evaluates expected credit losses on accounts receivable, considering historical credit losses, current customer-specific information and other relevant factors when determining the allowance. An increase to the allowance for credit losses results in a corresponding increase in selling, general and administrative expenses. The Company charges off uncollectible receivables against the allowance when all attempts to collect the receivable have failed. The Company's history of write-offs has not been significant. Recoveries are recognized when received as a reduction to the allowance for credit losses by decreasing bad debt expense. The following

(In Thousands, Except Per Share Amounts)

table provides a reconciliation of the changes in the allowance for estimated accounts receivable credit losses for the years ended December 31, 2023, 2022 and 2021:

	Year Ended December 31,		
	2023	2022	2021
Beginning balance - January 1	$ 230	$ 1,096	$ 1,096
Provision for expected credit losses	270	190	65
Recovery	—	(1,056)	(65)
Ending balance - December 31	$ 500	$ 230	$ 1,096

Concentration of Credit Risk and Significant Customers — During 2023, 2022 and 2021, 8.8%, 9.7% and 10.5% of the Company's total revenue was derived from its top ten customers. During 2023, 2022 and 2021 no individual customer accounted for more than 10% of the Company's revenue. As of December 31, 2023 and 2022, 11.3% and 11.7% of the Company's total accounts receivable were derived from its top ten customers. No individual customer accounted for more than 10% of the Company's accounts receivable as of December 31, 2023 and 2022.

Inventories—Inventories are stated at the lower of cost or net realizable value based on the first-in, first-out cost method (FIFO) and consist of raw materials, work in process and finished goods. The Company's industry is characterized by rapid product development and frequent new product introductions. Uncertain timing of regulatory approvals, variability in product launch strategies and variation in product sales all impact inventory reserves for excess, obsolete and expired products. An increase to inventory reserves results in a corresponding increase in cost of revenue. Inventories are written off against the reserve when they are physically disposed.

Property and Equipment—Property and equipment is stated at cost less accumulated depreciation. Depreciation is determined using the straight-line method over the estimated useful life. The estimated useful life of leasehold improvements is the shorter of the estimated life or the lease term. The estimated useful lives of buildings is 15 to 20 years, while furniture, fixtures, computers and office equipment are depreciated from three to seven years. The Company's radiofrequency and cryothermic generators are generally placed with customers that purchase the Company's disposable products. The estimated useful lives of generators are based on anticipated usage by customers and may change in future periods with changes in usage or introduction of new technology. Depreciation related to generators is recorded in cost of revenue over three years. Maintenance and repair costs are expensed as incurred. The Company assesses the useful lives of property and equipment at least annually and retires assets no longer in use.

Intangible Assets—Technology intangible assets with determinable useful lives are amortized on a straight-line basis over the estimated fifteen year period benefited. Patent intangible assets with determinable useful lives are amortized over the estimated useful life of five years in a pattern reflecting the estimated economic benefit of the asset to the Company. Amortization of technology intangible assets is recorded in research and development expense, while amortization of patent intangible assets is recorded in cost of revenue. The Company reviews intangible assets for impairment at least annually or more often if impairment indicators are present using its best estimates based on reasonable and supportable assumptions and projections.

Goodwill—Goodwill represents the excess of purchase price over the fair value of the net assets acquired in business combinations. The Company's goodwill is accounted for in a single reporting unit representing the Company as a whole. The Company performs impairment testing annually on October 1 or more often if impairment indicators are present.

Long-lived Assets—The Company reviews property and equipment and intangible assets, excluding goodwill, for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. When such an event occurs, management determines whether there has been impairment by comparing the anticipated undiscounted future net cash flows to the related asset's carrying value.

Leases—The Company leases office, manufacturing and warehouse facilities and automobiles under leases that qualify as either financing or operating leases, as determined at the inception of the lease arrangement. Lease assets represent the right to use an underlying asset for the lease term, and lease liabilities represent the obligation to make payments under the lease. Lease assets and liabilities are measured and recorded at the commencement date based on the present value of payments over the lease term.

Lease assets and liabilities include lease incentives and options to extend or terminate when it is reasonably certain the Company will exercise that option. The Company uses the implicit rate when readily determinable; however, as most leases do not provide an implicit rate, the Company generally uses its incremental borrowing rate. The Company also applies the short-term lease recognition exemption, recognizing lease payments in profit or loss, for lease terms of 12 months or less at commencement and with no option to extend the lease whose exercise is reasonably certain. The Company accounts for the lease and non-lease components as a single lease component. Additionally, the portfolio approach is applied for operating leases based on the terms of the underlying leases.

Operating leases are included in operating lease right-of-use (ROU) assets and operating lease liabilities, while finance leases are included in property and equipment and finance lease liabilities. The short-term portions of lease liabilities are included in other current liabilities and current maturities of debt and leases. Operating lease expense is recognized on a straight-line basis over the lease term. See Note 9 – Leases for further discussion.

Other Income (Expense)—Other income (expense) consists primarily of foreign currency transaction gains and losses generated by settlements of intercompany balances denominated in Euros and customer invoices transacted in British Pounds, Australian Dollars and Canadian Dollars.

Income Taxes—Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred income tax assets and liabilities from a change in tax rates is recognized in the period that includes the enactment date.

The Company’s estimate of the valuation allowance for deferred income tax assets requires significant estimates and judgments about future operating results. Deferred income tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more-likely-than-not that a deferred income tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. The Company evaluates deferred income tax assets on an annual basis to determine if valuation allowances are required by considering all available evidence. Deferred income tax assets are realized by having sufficient future taxable income to allow the related tax benefits to reduce taxes otherwise payable. The sources of taxable income that may be available to realize the benefit of deferred income tax assets are future taxable income, future reversals of existing taxable temporary differences, taxable income in prior carryforward years and tax planning strategies that are both prudent and feasible. In evaluating the need for a valuation allowance, the existence of cumulative losses in recent years is significant objectively-verifiable negative evidence that must be overcome by objectively-verifiable positive evidence to avoid the need for a valuation allowance. The Company's valuation allowance offsets substantially all net deferred income tax assets as it is more-likely-than-not that the benefit of the deferred income tax assets will not be recognized in future periods. The Company has not reclassified income tax effects of the Tax Cuts and Jobs Act within accumulated other comprehensive (loss) income to retained earnings due to its full valuation allowance.

Earnings Per Share—Basic earnings per share is computed by dividing net (loss) income available to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share reflects net income available to common stockholders divided by the weighted average number of common shares outstanding during the period and any dilutive common share equivalents, including shares issuable upon the vesting of restricted stock awards and restricted stock units, exercise of stock options as well as shares issuable under the Company's employee stock purchase plan (ESPP).

(In Thousands, Except Per Share Amounts)

	Year Ended December 31,		
	2023	2022	2021
Net (loss) income available to common stockholders	$ (30,438)	$ (46,466)	$ 50,199
Basic weighted average common shares outstanding	46,309	45,740	45,066
Effect of dilutive securities	—	—	973
Diluted weighted average common shares outstanding	46,309	45,740	46,039
Basic net (loss) income per common share	$ (0.66)	$ (1.02)	$ 1.11
Diluted net (loss) income per common share	$ (0.66)	$ (1.02)	$ 1.09

For the years ended December 31, 2023 and 2022, the number of shares calculated for basic net loss per share is also used for the diluted net loss per share calculation, and net loss per share excludes the effect of 1,668 and 1,292 shares because the effect would be anti-dilutive. The computation of diluted earnings per share in the year ended December 31, 2021 excludes 404 shares because the effect would be anti-dilutive.

Research and Development Costs—Research and development costs include compensation and other internal and external costs associated with the development and research of new and existing products or concepts, preclinical studies, clinical trials and studies, and related regulatory activities, as well as amortization of technology assets. Research and development costs are expensed as incurred. Clinical trial costs and other development costs incurred by third parties are expensed as contracted work is performed or over the expected service period.

Advertising Costs—The Company expenses advertising costs as incurred. Advertising expense was $1,695, $1,233 and $907 during the years ended December 31, 2023, 2022 and 2021.

Share-Based Compensation—The Company recognizes share-based compensation expense for all share-based payment awards, including stock options, restricted stock awards, restricted stock units, performance share awards (PSAs) and stock purchases related to an employee stock purchase plan, based on estimated fair values. The value of the portion of an award that is ultimately expected to vest is recognized as expense over the service period. Prior to January 1, 2023, the Company estimated forfeitures at the time of grant and revised them, as necessary, in subsequent periods as actual forfeitures differ from those estimates. Effective January 1, 2023, the Company's policy was amended to account for forfeitures as they occur rather than estimating at the time of grant, and the effect on income from continuing operations and retained earnings is not significant.

The Company estimates the fair value of time-based options on the date of grant using the Black-Scholes option-pricing model (Black-Scholes model). The Company’s determination of the fair value is affected by the Company’s stock price as well as several subjective assumptions, such as the Company’s expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors. The Company estimates the fair value of restricted stock awards and restricted stock units based upon the grant date closing market price of the Company’s common stock.

The Company estimates the fair value of PSAs with a performance condition based on the closing stock price on the date of grant assuming the performance target will be achieved and may adjust expense over the performance period based on changes to estimates of performance target achievement. If such targets are not met or service is not rendered for the requisite service period, no compensation cost is recognized, and any recognized compensation cost in prior periods will be reversed. For PSAs with a market condition, a Monte Carlo simulation is performed to estimate the fair value on the date of grant, and compensation cost is recognized over the requisite service period as the employee renders service, even if the market condition is not satisfied. The Company’s determination of the fair value is affected by the Company and market index stock performance, as defined by the award agreement, at the beginning of the service period and grant date; the expected volatility of the Company and market index stock performance over the performance period and the correlation coefficient of the daily returns for the Company and market index over the performance period.

The Company also has an employee stock purchase plan (ESPP) covering substantially all U.S. employees of the Company. Under the ESPP, shares of the Company’s common stock may be purchased at a discount. The Company estimates the number of shares to be purchased under the ESPP at the beginning of each purchase period based upon the

fair value of the stock at the beginning of the purchase period using the Black-Scholes model and records estimated compensation expense during the purchase period. Expense is adjusted at the time of stock purchase.

Use of Estimates—The preparation of the financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires estimates and assumptions that affect the reported amounts of assets and liabilities, including intangible assets, contingent assets and liabilities and the reported amounts of revenue and expense during the reporting period. Estimates are based on historical experience, where applicable, and other assumptions believed to be reasonable by management. Actual results could differ from those estimates.

Segments—The Company evaluates reporting segments in accordance with FASB ASC 280, "Segment Reporting". The Company develops, manufactures and sells devices designed primarily for the surgical ablation of cardiac tissue, systems designed for the exclusion of the left atrial appendage and devices designed to block pain by temporarily ablating peripheral nerves. These devices are developed and marketed to a broad base of medical centers globally. Management considers all such sales to be part of a single operating segment. The chief operating decision maker for the Company is the Chief Executive Officer. The Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied only by information about revenue by product type and geographic area, for purposes of allocating resources and evaluating financial performance. Accordingly, the Company has determined that it has a single operating segment. The Company's long-lived assets are located in the United States, except for $3,432 as of December 31, 2023 and $1,616 as of December 31, 2022 located primarily in Europe.

Fair Value Disclosures—The Company classifies cash investments in U.S. government and agency obligations, accounts receivable, other current assets, and accounts payable as Level 1. The carrying amounts of these assets and liabilities approximate their fair value due to their relatively short-term nature. Cash equivalents and investments in corporate bonds, commercial paper and asset-backed securities are classified as Level 2 within the fair value hierarchy. The fair value of fixed term debt is estimated by calculating the net present value of future debt payments at current market interest rates and is classified as Level 2. The book value of the Company's fixed term debt approximates its fair value because the interest rate varies with market rates. Significant unobservable inputs with respect to the fair value measurements of the Level 3 contingent consideration liabilities are developed using Company data. See Note 2 – Fair Value for further information on fair value measurements.

Recent Accounting Pronouncements—In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures". This guidance provides new segment disclosure requirements for entities with a single reportable segment and modifies certain reportable segment disclosure requirements. The guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is in the process of assessing the impact of the adoption of this guidance; however, adoption is not expected to have a material impact on the Company's consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures". This guidance requires disclosure of specific categories in the rate reconciliation and provide additional information for reconciling items that meet a specified quantitative threshold. The guidance is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is in the process of assessing the impact of the adoption of this guidance; however, adoption is not expected to have a material impact on the Company's consolidated financial statements.

2. FAIR VALUE

FASB ASC 820, "Fair Value Measurements and Disclosures", defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy is based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1—Quoted prices in active markets for identical assets or liabilities that the Company has the ability to access at the measurement date. An active market for the asset or liability is a market in which transactions for the asset or

(In Thousands, Except Per Share Amounts)

liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis. The valuation under this approach does not entail a significant degree of judgment.

- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. The valuation technique for the Company's Level 2 assets is based on quoted market prices for similar assets from observable pricing sources at the reporting date.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Unobservable inputs shall be used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2023:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 77,864	$ —	$ 77,864
Government and agency obligations	12,711	—	—	12,711
Corporate bonds	—	38,033	—	38,033
Asset-backed securities	—	2,231	—	2,231
Total assets	$ 12,711	$ 118,128	$ —	$ 130,839

The following table represents the Company's fair value hierarchy for its financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2022:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	$ —	$ 54,414	$ —	$ 54,414
Commercial paper	—	11,935	—	11,935
Government and agency obligations	32,637	—	—	32,637
Corporate bonds	—	67,598	—	67,598
Asset-backed securities	—	2,353	—	2,353
Total assets	$ 32,637	$ 136,300	$ —	$ 168,937

There were no changes in the levels or methodology of measurement of financial assets and liabilities during the years ended December 31, 2023 and 2022.

Contingent Consideration. The Company's contingent consideration arrangements arising from the SentreHEART acquisition obligate the Company to pay certain defined amounts to former shareholders of SentreHEART if specified milestones are met related to the aMAZE IDE clinical trial, including PMA approval and reimbursement for the therapy involving SentreHEART's devices. The achievement periods for the PMA approval and reimbursement milestones expire on December 31, 2023 and December 31, 2026, respectively. The contingent consideration liabilities are measured by

(In Thousands, Except Per Share Amounts)

applying the probability weighted scenario method using unobservable inputs, thus representing a Level 3 measurement within the fair value hierarchy. During 2021, the Company was informed that data from the aMAZE clinical trial did not achieve statistical superiority, and the Company assessed the projected probability of payment to be remote. The Company recorded a credit to operating expenses of $184,800 reflecting the change in fair value of the contingent consideration. The Company continues to assess the projected probability of payment during the contractual achievement periods to be remote, resulting in no fair value as of December 31, 2023 and 2022.

The following table represents the Company's Level 3 fair value measurements using significant other unobservable inputs for acquisition-related contingent consideration for each of the years ended December 31:

	2023	2022	2021
Beginning Balance – January 1	$ —	$ —	$ 184,800
Amounts acquired	—	—	—
Changes in fair value of contingent consideration	—	—	(184,800)
Ending Balance – December 31	$ —	$ —	$ —

3. INVESTMENTS

Investments as of December 31, 2023 consisted of the following:

	Cost Basis	Unrealized Losses	Fair Value
Corporate bonds	$ 38,514	$ (481)	$ 38,033
Government and agency obligations	12,998	(287)	12,711
Asset-backed securities	2,263	(32)	2,231
Total	$ 53,775	$ (800)	$ 52,975

Investments as of December 31, 2022 consisted of the following:

	Cost Basis	Unrealized Losses	Fair Value
Corporate bonds	$ 69,832	$ (2,234)	$ 67,598
Government and agency obligations	33,971	(1,334)	32,637
Commercial paper	11,935	—	11,935
Asset-backed securities	2,483	(130)	2,353
Total	$ 118,221	$ (3,698)	$ 114,523

The gross realized gains or losses from sales of available-for-sale investments were not material in the years ended December 31, 2023, 2022 and 2021.

The cost and fair value of investments in debt securities, by contractual maturity, as of December 31, 2023 were as follows:

	Available-for-sale	
	Amortized Cost	Fair Value
Due in 1 year or less	$ 51,512	$ 50,744
Instruments not due at a single maturity date	2,263	2,231
Total	$ 53,775	$ 52,975

Instruments not due at a single maturity date consist of asset-backed securities. Actual maturities may differ from the contractual maturities due to call or prepayment rights.

(In Thousands, Except Per Share Amounts)

4. INTANGIBLE ASSETS AND GOODWILL

The following table provides a summary of the Company's intangible assets at December 31:

	2023		2022	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Technology	$ 46,470	$ 10,084	$ 46,470	$ 7,131
Patents	30,000	2,400	$ —	$ —
Total	$ 76,470	$ 12,484	$ 46,470	$ 7,131

In May 2023, the Company acquired patents that are amortizable over an estimated useful life of five years, in a pattern reflecting the estimated economic benefit of the patents to the Company. See Note 10 – Commitments and Contingencies for further information on the patent acquisition. During 2021, the Company recorded an impairment charge of $82,300 to reduce the carrying value of the aMAZE IPR&D asset to $0 as of December 31, 2021 resulting from the aMAZE clinical trial not achieving statistical superiority.

Amortization expense of intangible assets was $5,353, $3,653 and $2,907 for the years ended December 31, 2023, 2022 and 2021. The following table summarizes the allocation of amortization expense of intangible assets:

	2023	2022	2021
Cost of revenues	$ 2,400	$ —	$ —
Selling, general and administrative expenses	2,953	3,653	2,907
Total	$ 5,353	$ 3,653	$ 2,907

Future amortization expense is projected as follows:

2024	$ 7,453
2025	8,353
2026	9,553
2027	10,453
2028	6,553
2029 and thereafter	21,621
Total	$ 63,986

The following table provides a summary of the Company's goodwill, which is not amortized, but rather tested annually for impairment:

Net carrying amount as of December 31, 2021	$ 234,781
Additions (Impairment)	—
Net carrying amount as of December 31, 2022	234,781
Additions (Impairment)	—
Net carrying amount as of December 31, 2023	$ 234,781

(In Thousands, Except Per Share Amounts)

5. INVENTORIES

Inventories consisted of the following at December 31:

	2023	2022
Raw materials	$ 36,751	$ 19,880
Work in process	3,582	2,959
Finished goods	27,564	23,092
Inventories	$ 67,897	$ 45,931

6. PROPERTY AND EQUIPMENT

Property and equipment consisted of the following at December 31:

	2023	2022
Buildings and improvements	$ 29,193	$ 28,947
Generators	23,407	21,354
Machinery and office equipment	24,076	20,184
Computer equipment and software	9,845	10,251
Construction in progress	7,332	3,909
Land	1,006	1,006
Total	94,859	85,651
Less accumulated depreciation	(52,424)	(46,818)
Property and equipment, net	$ 42,435	$ 38,833

Property and equipment depreciation expense was $9,460, $8,057 and $7,534 for the years ended December 31, 2023, 2022 and 2021. As of December 31, 2023 and 2022, the net carrying value of generators was $4,912 and $4,447.

7. ACCRUED LIABILITIES

Accrued liabilities consisted of the following at December 31:

	2023	2022
Accrued compensation and employee-related expenses	$ 39,425	$ 26,924
Other accrued liabilities	2,503	3,301
Sales returns and allowances	2,754	2,797
Total	$ 44,682	$ 33,022

8. INDEBTEDNESS

SVB Loan Agreement. As of December 31, 2023, the Company has a Loan and Security Agreement, as amended and modified effective February 8, 2021 and as further amended November 1, 2021 with Silicon Valley Bank (SVB) (SVB Loan Agreement). The SVB Loan Agreement includes a $60,000 term loan, with an option to make available an additional $30,000 in term loan borrowings, and a $30,000 revolving line of credit. The SVB Loan Agreement has a five-year term, expiring November 2026.

Principal payments under the SVB Loan Agreement are to be made ratably commencing 24 months after inception through the loan's maturity date. In November 2023, the Company exercised its option to extend the commencement of term loan principal payments for an additional twelve months. The term loan accrues interest at the Prime Rate plus 1.25% and is subject to an additional 3.00% fee on the term loan principal amount at maturity. The Company is accruing the 3.00% fee over the term of the SVB Loan Agreement, with $780 included in the outstanding loan balance as of December 31, 2023. Additionally, the unamortized financing costs related to the term loan of $187 are netted against the

outstanding loan balance in the Consolidated Balance Sheets and are amortized ratably over the term of the SVB Loan Agreement.

The revolving line of credit is subject to an annual facility fee of 0.20% of the revolving line of credit, and any borrowings thereunder bear interest at the Prime Rate. Borrowing availability under the revolving credit facility is based on the lesser of $30,000 or a borrowing base calculation as defined by the SVB Loan Agreement. Financing costs related to the revolving line of credit are included in other assets in the Consolidated Balance Sheets and amortized ratably over the twelve-month period of the annual fee. As of December 31, 2023, the Company had no borrowings under the revolving credit facility and had borrowing availability of approximately $28,750.

The SVB Loan Agreement also provides for certain prepayment and early termination fees, as well as establishes a minimum liquidity covenant and dividend restrictions, along with other customary terms and conditions. Specified assets have been pledged as collateral.

New Credit Agreement. On January 5, 2024, the Company entered into an asset-based credit agreement (Credit Agreement) among the Borrowers, JPMorgan Chase Bank, N.A., as administrative agent, and JPMorgan Chase Bank, N.A., as bookrunner and lead arranger (JPMCB), and Silicon Valley Bank, a Division of First-Citizen Bank & Trust Company, as Joint Lead Arrangers and Joint Bookrunners, and the lenders party thereto (Lenders). The Credit Agreement provides for an asset based revolving credit facility (ABL Facility) in an amount of up to $125,000. The Company may request an increase in the revolving commitment by up to $40,000 (not to exceed a total of $165,000). Borrowing availability under the ABL Facility is based on the lesser of $125,000 or a borrowing base calculation as defined by the Credit Agreement. A portion of the ABL Facility, limited to $5,000, is available for the issuance of letters of credit by JPMCB or other financial institutions. JPMCB in its sole discretion, may create swingline loans by advancing floating rate revolving loans requested. Any such swingline loans will reduce availability under the ABL Facility on a dollar-for-dollar basis. The Credit Agreement has a three-year term, expiring January 5, 2027.

The ABL facility is subject to a facility fee of 0.37% per annum of the daily available revolving commitment and paid on a quarterly basis. Outstanding amounts under the Credit Agreement bear interest at a rate per annum equal to, at the Company's election: (i) an alternate base rate (ABR) plus an applicable margin or (ii) an adjusted term secured overnight financing rate (SOFR) plus an applicable margin. All swingline loans bear interest at a rate per annum equal to the ABR plus the applicable margin under the Credit Agreement. Alternate base rate is equal to the greatest of Prime, the NYFRB Rate plus 0.50% and Adjusted Term SOFR Rate plus 1.00%. The applicable margin on borrowings will adjust ranging 1.50% to 1.75% per annum for ABR borrowings and from 2.50% to 2.75% per annum for SOFR term borrowings determined by the average historical excess availability. Participation and fronting fees are accrued and paid on a quarterly basis. At time of closing, the Company borrowed $61,865 and had $61,885 of available borrowing capacity under the ABL facility. The proceeds of the ABL Facility were used to terminate the Company’s indebtedness under the SVB Loan Agreement. The SVB Loan Agreement terminated on January 5, 2024 and was treated as a debt extinguishment. Certain prepayment and early termination fees under the SVB Loan Agreement were waived at termination. The resulting loss on debt extinguishment in 2024 is not significant. As a result of the new Credit Agreement, borrowings outstanding under the existing SVB Loan Agreement have been classified as long-term in the Consolidated Balance Sheet as of December 31, 2023.

Outstanding borrowings are due upon maturity of the Credit Agreement in January 5, 2027. Through January 2025, the Company's required minimum utilization of the ABL facility is 40% of the aggregate revolving commitment or $50,000. Subject to customary exceptions and restrictions, the Company may voluntarily prepay outstanding amounts under the ABL Facility at any time thereafter without premium or penalty. Any voluntary prepayments made will not reduce commitments under the ABL Facility. The Credit Agreement contains mandatory prepayment provisions which require prepayment of amounts outstanding under the ABL Facility upon specified events or shortfall.

The ABL Facility is secured by the assets of the Company, whether consisting of personal, tangible or intangible property, including specified all of the outstanding equity interests of the Company’s direct subsidiaries, subject to limitations specified in the Credit Agreement. The Credit Agreement contains customary representations and warranties, events of default and financial, affirmative and negative covenants for facilities of this type, including but not limited to financial covenants relating to a fixed charge coverage ratio, a minimum liquidity requirement and a minimum excess availability requirement, and restrictions on indebtedness, liens, investments and acquisitions, asset dispositions, specified agreements, restricted payments and prepayment of certain indebtedness.

(In Thousands, Except Per Share Amounts)

Future maturities of debt, after consideration of the new Credit Agreement on January 5, 2024, are projected as follows:

2024	$ —
2025	—
2026	—
2027	61,865
2028	—
Total long-term debt, of which $0 is current and $61,865 is noncurrent	$ 61,865

9. LEASES

The Company has operating and finance leases for office, manufacturing and warehouse facilities and automobiles. The Company's leases have remaining lease terms of one to nine years. Options to renew or extend leases beyond their initial term have been excluded from measurement of the ROU assets and lease liabilities as exercise is not reasonably certain.

The weighted average remaining lease term and the discount rate for the reporting periods are as follows:

	As of December 31, 2023	As of December 31, 2022	As of December 31, 2021
Operating Leases			
Weighted average remaining lease term (years)	4.8	4.4	3.6
Weighted average discount rate	5.75 %	4.60 %	4.69 %
Finance Leases			
Weighted average remaining lease term (years)	6.7	7.6	8.6
Weighted average discount rate	6.93 %	6.92 %	6.91 %

A letter of credit for $1,250 was issued to the lessor of the Company's corporate headquarters building at inception of the lease and is renewed annually and remains outstanding as of December 31, 2023.

The components of lease expense are as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Operating lease cost	$ 1,284	$ 1,133	$ 1,052
Finance lease cost:			
Amortization of right-of-use assets	1,020	1,016	1,019
Interest on lease liabilities	673	735	792
Total finance lease cost	$ 1,693	$ 1,751	$ 1,811

Short term lease expense was not significant for the twelve months ended December 31, 2023, 2022 and 2021.

(In Thousands, Except Per Share Amounts)

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	$ 1,235	$ 845	$ 998
Operating cash flows for finance leases	673	735	620
Financing cash flows for finance leases	992	899	792
Right-of-use assets obtained in exchange for lease obligations:			
Operating Leases	1,509	—	3,752
Finance Leases	—	62	—

Supplemental balance sheet information related to leases was as follows:

	As of December 31, 2023	As of December 31, 2022
Operating Leases		
Operating lease right-of-use assets	$ 4,324	$ 3,787
Other current liabilities and current maturities of debt and leases	1,447	1,147
Operating lease liabilities	3,307	3,095
Total operating lease liabilities	$ 4,754	$ 4,242
Finance Leases		
Property and equipment, at cost	$ 14,620	$ 14,645
Accumulated depreciation	(8,105)	(7,109)
Property and equipment, net	$ 6,515	$ 7,536
Other current liabilities and current maturities of debt and leases	$ 1,086	$ 992
Finance lease liabilities	8,061	9,147
Total finance lease liabilities	$ 9,147	$ 10,139

Maturities of lease liabilities as of December 31, 2023 were as follows:

	Operating Leases	Finance Leases
2024	$ 1,449	$ 1,689
2025	1,188	1,638
2026	848	1,671
2027	842	1,703
2028	458	1,725
2029 and thereafter	767	3,099
Total payments	$ 5,552	$ 11,525
Less imputed interest	(798)	(2,378)
Total lease liabilities	$ 4,754	$ 9,147

10. COMMITMENTS AND CONTINGENCIES

License Agreements. The Company had been party to a license agreement that required payments of 5% of specified product sales. In May 2023, the Company entered into an agreement that terminated the license agreement and the Company's obligations to make royalty payments. See *Legal* section below for additional information. Royalty expense was $1,333, $3,264 and $3,124 for the years ended December 31, 2023, 2022 and 2021.

Purchase Agreements. The Company enters into standard purchase agreements with suppliers in the ordinary course of business, generally with terms that allow cancellation.

Legal. The Company may, from time to time, become a party to legal proceedings. Such matters are subject to many uncertainties and to outcomes of which the financial impacts are not predictable with assurance and that may not be known for extended periods of time. A liability is established once management determines a loss is probable and an amount can be reasonably estimated. The Company recognizes income from a favorable resolution of legal proceedings when the associated cash or assets are received.

The Company received a Civil Investigative Demand (CID) from the U.S. Department of Justice (USDOJ) in December 2017 stating that it is investigating the Company to determine whether the Company has violated the False Claims Act, relating to the promotion of certain medical devices related to the treatment of atrial fibrillation for off-label use and submitted or caused to be submitted false claims to certain federal and state health care programs for medically unnecessary healthcare services related to the treatment of atrial fibrillation. The CID covers the period from January 2010 to December 2017 and required the production of documents and answers to written interrogatories. The Company had no knowledge of the investigation prior to receipt of the CID. The Company maintains rigorous policies and procedures to promote compliance with the False Claims Act and other applicable regulatory requirements. The Company provided the USDOJ with documents and answers to the written interrogatories. In March 2021, USDOJ informed the Company that its investigation was based on a lawsuit brought on behalf of the United States and various state and local governments under the *qui tam* provisions of federal and certain state and local False Claims Acts. Although the USDOJ and all of the state and local governments declined to intervene, the relator continues to pursue the case. During the third quarter of 2022, the relator filed a Fourth Amended Complaint, which dropped allegations of off-label promotion and alleges that the Company paid illegal kickbacks to healthcare providers in exchange for using or referring the Company’s products, in violation of the federal Anti-Kickback Statute and various comparable state and local laws. While the Company is contesting the case, it is not possible to predict when this matter may be resolved or what impact, if any, the outcome of this matter might have on our consolidated financial position, results of operations or cash flows.

On August 23, 2022, the Cleveland Clinic Foundation (Clinic) and IDx Medical, Ltd. (IDx) filed a Demand for Arbitration against the Company with the American Arbitration Association (AAA), alleging that the Company breached certain provisions of the License Agreement dated December 9, 2003, among the Company, Clinic and IDx (License Agreement). Clinic and IDx allege the Company did not include the revenues from sales of certain products in its calculation of royalty payments due under the License Agreement, and that the Company did not provide related notices required under the License Agreement. The Company filed its Answering Statement and Counterclaims to the allegations in September 2022, denying each claim and counterclaiming for breach of contract, correction of inventorship, declaratory judgment, patent prosecution and legal fees. In May 2023, the Company entered into an Assignment and Agreement Regarding IDx and CCF Intellectual Property (Assignment Agreement) with Clinic and IDx. Pursuant to the Assignment Agreement, during the second quarter of 2023, the Company made a one-time payment of $33,400 to Clinic and IDx for the acquisition of patents and other intellectual property. The Assignment Agreement also required dismissal of the arbitration and release of payment for royalty obligations due to Clinic and IDx under the License Agreement after March 31, 2023. The amount paid, together with transaction costs, was allocated between the acquired intangible asset, the release of payment for royalty obligations and the settlement of the dispute. The intangible asset was assigned a value of $30,000 and is being amortized over an estimated useful life of 5 years. The release of the royalty obligations was valued at $432. The remaining $3,088 was allocated to the settlement and is included in selling, general and administrative expenses for the twelve months ended December 31, 2023.

During the first quarter of 2023, the Company entered into a legal settlement of $7,500 in connection with the settlement of claims filed against a competitor. The Company recorded a $7,500 gain for the twelve months ended December 31, 2023 for the proceeds received as a reduction to selling, general and administrative expenses.

(In Thousands, Except Per Share Amounts)

11. REVENUE

The Company develops, manufactures and sells devices designed primarily for surgical ablation of cardiac tissue, exclusion of the left atrial appendage, and temporarily blocking pain by ablating peripheral nerves. These devices are marketed to a broad base of medical centers globally. The Company recognizes revenue when control of promised goods is transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods.

United States revenue by product type is as follows:

	2023	2022	2021
Open ablation	$ 105,287	$ 86,119	$ 72,396
Minimally invasive ablation	44,577	38,553	39,380
Pain management	49,199	39,974	22,787
Total ablation	$ 199,063	$ 164,646	$ 134,563
Appendage management	134,481	112,555	94,568
Total United States	$ 333,544	$ 277,201	$ 229,131

International revenue by product type is as follows:

	2023	2022	2021
Open ablation	$ 31,483	$ 26,809	$ 23,194
Minimally invasive ablation	6,670	5,986	6,409
Pain management	2,013	558	61
Total ablation	$ 40,166	$ 33,353	$ 29,664
Appendage management	25,535	19,825	15,534
Total International	$ 65,701	$ 53,178	$ 45,198

Revenue attributed to customer geographic locations is as follows:

	2023	2022	2021
United States	$ 333,544	$ 277,201	$ 229,131
Europe	38,469	30,428	27,931
Asia-Pacific	24,526	20,734	16,077
Other International	2,706	2,016	1,190
Total International	65,701	53,178	45,198
Total Revenue	$ 399,245	$ 330,379	$ 274,329

12. INCOME TAXES

The Company files federal, state and foreign income tax returns in jurisdictions with varying statutes of limitations. The Company uses the asset and liability method in accordance with FASB ASC 740, “Income Taxes”, under which deferred income taxes are provided for the temporary differences between the financial reporting basis and the tax basis of the Company’s assets and liabilities. Deferred taxes are measured using provisions of currently enacted tax laws. A valuation allowance against deferred tax assets is recorded when it is more likely than not that such assets will not be fully realized. The Company's valuation allowance offsets substantially all its net deferred tax assets as it is more likely than not that the benefit of the deferred tax assets will not be recognized in future periods.

(In Thousands, Except Per Share Amounts)

The Company's provision for income taxes for each of the years ended December 31 is as follows:

	2023	2022	2021
Current tax expense			
Federal	$ —	$ —	$ —
State	389	142	42
Foreign	217	118	125
Total current tax expense	606	260	167
Deferred tax expense			
Federal	$ (2,972)	$ (8,351)	$ (30,925)
State	(928)	(459)	(4,803)
Foreign	(3,671)	(1,636)	(826)
Change in valuation allowance	7,556	10,454	36,575
Total deferred tax expense	(15)	8	21
Total tax expense	$ 591	$ 268	$ 188

The detail of deferred tax assets and liabilities at December 31 is as follows:

	2023	2022
Deferred tax assets:		
Net operating loss carryforwards	$ 129,744	$ 138,263
Research and development credit carryforwards	15,171	13,205
Research and experimental expenditures	20,193	10,104
Equity compensation	10,599	8,287
Finance and operating lease liabilities	3,083	3,395
Deferred interest	—	2,411
Inventories	2,822	1,896
Accruals and reserves	1,131	1,332
Property and equipment	219	(2,568)
Total deferred tax assets	182,962	176,325
Deferred tax liabilities:		
Intangible assets	(8,568)	(9,278)
Right-of-use assets	(2,160)	(2,626)
Other	(444)	506
Total deferred tax liabilities	(11,172)	(11,398)
Valuation allowance	(171,766)	(164,918)
Net deferred tax assets	$ 24	$ 9

Provisions enacted in the Tax Cut and Jobs Act of 2017 related to the capitalization of research and experimental expenditures for tax purposes became effective on January 1, 2022. These provisions require the Company to capitalize and amortize research and experimental expenditures for tax purposes over five or fifteen years, depending on where research is conducted. The Company has federal net operating loss carryforwards of $276,866 which expire between 2024 and 2037 and $175,758 which have no expiration. The Company has state and local net operating loss carryforwards of $301,639 which expire between 2024 to 2043. A portion of the Company's federal and state net operating loss carryforwards are subject to certain limitations under Internal Revenue Code Sections 382 and 383. The Company has federal research and development credit carryforwards of $15,171 which expire between 2024 and 2043. Additionally, the Company has foreign net operating loss carryforwards of approximately $75,355 which have no expiration.

(In Thousands, Except Per Share Amounts)

The Company's 2023, 2022 and 2021 effective income tax rates differ from the federal statutory rate as follows:

	2023		2022		2021	
Federal tax at statutory rate	21.0 %	$ (6,268)	21.0 %	$ (9,701)	21.0 %	$ 10,580
Permanent differences	(10.4)	3,092	(1.9)	876	(80.3)	(40,439)
Valuation allowance	(25.3)	7,556	(22.6)	10,454	72.6	36,575
State income taxes	1.8	(539)	0.7	(317)	(9.4)	(4,760)
Federal R&D credit	6.6	(1,966)	4.2	(1,936)	(3.7)	(1,878)
Foreign income taxes	3.4	(1,012)	(0.5)	215	0.7	344
Federal deferred adjustments	0.9	(272)	(1.5)	677	(0.5)	(234)
Effective tax rate	(2.0)%	$ 591	(0.6)%	$ 268	0.4 %	$ 188

The Company's pre-tax book (loss) income for domestic and international operations was $(17,822) and $(12,025) for 2023, $(38,008) and $(8,190) for 2022, and $55,666 and $(5,279) for 2021.

The Company had undistributed earnings of foreign subsidiaries of approximately $444 at December 31, 2023. The Company does not consider these earnings as permanently reinvested and has determined that no current and deferred taxes are required on such amounts.

Federal, state and local tax returns of the Company are routinely subject to examination by various taxing authorities. Federal income tax returns for periods beginning in 2020 are open for examination. Generally, state and foreign income tax returns for periods beginning in 2019 are open for examination. However, taxing authorities have the ability to audit net operating loss and tax credit carryforwards from years prior to these periods. The Company has not recognized certain tax benefits because of the uncertainty of realizing the entire value of the tax position taken on income tax returns upon review by the taxing authorities.

A reconciliation of the change in federal and state unrecognized tax benefits for 2023, 2022 and 2021 is presented below:

	2023	2022	2021
Balance at the beginning of the year	$ 1,762	$ 1,798	$ 1,798
Increases (decreases) for prior year tax positions	(90)	(36)	—
Increases (decreases) for current year tax positions	—	—	—
Increases (decreases) related to settlements	—	—	—
Decreases related to statute lapse	—	—	—
Balance at the end of the year	$ 1,672	$ 1,762	$ 1,798

The balance of unrecognized tax benefits at December 31, 2023, 2022 and 2021 includes $1,672, $1,762 and $1,798 of tax benefits that, if recognized, would result in adjustments to other tax accounts, primarily deferred taxes and valuation allowance. The Company does not expect that its unrecognized tax benefits for research credits will significantly change within twelve months of December 31, 2023.

13. EMPLOYEE BENEFIT PLANS

The Company sponsors the AtriCure, Inc. 401(k) Plan (401(k) Plan), a defined contribution plan covering substantially all U.S. employees of the Company. Eligible employees may contribute pre-tax annual compensation up to specified maximums under the Internal Revenue Code. During the years ended December 31, 2023 and 2022, the Company matched contributions of 50% on the first 8% of employee contributions to the 401(k) Plan. During the year ended December 31, 2021, the Company matched contributions of 50% on the first 6% of employee contributions to the 401(k) Plan. The Company's matching contributions in 2023, 2022 and 2021 were $4,949, $4,447 and $2,651. Additional amounts may be contributed to the 401(k) Plan at the discretion of the Company's Board of Directors; however, no such discretionary contributions were made in 2023, 2022 or 2021. The Company also provides retirement benefits for

(In Thousands, Except Per Share Amounts)

employees of its foreign subsidiaries. Total contributions to foreign retirement plans were $503, $446 and $349 in 2023, 2022 and 2021.

14. EQUITY COMPENSATION PLANS

The Company has two share-based incentive plans: the 2023 Stock Incentive Plan (2023 Plan) and the 2018 Employee Stock Purchase Plan (ESPP). Stockholders approved the 2023 Plan at the 2023 Annual Meeting of Stockholders. Pursuant to its terms, the 2023 Plan supersedes and replaces the 2014 Stock Incentive Plan (Prior Plan).

Stock Incentive Plan

Under the 2023 Plan, the Board of Directors may grant restricted stock awards or restricted stock units (collectively RSAs), nonstatutory stock options, performance share awards (PSAs) or stock appreciation rights to Company employees, directors and consultants, and may grant incentive stock options to Company employees. The Compensation Committee of the Board of Directors, as the administrator of the 2023 Plan, has the authority to determine the terms of any awards, including the number of shares subject to each award, the exercisability of the awards and the form of consideration. As of December 31, 2023, 2,287 shares of common stock had been reserved for issuance under the 2023 Plan and 2,238 shares were available for future grants. The Company issues registered shares of common stock for stock option exercises, restricted stock grants and performance award grants.

The following table summarizes total share-based compensation expense related to employees, directors and consultants for 2023, 2022 and 2021. The expense was allocated as follows:

	2023	2022	2021
Cost of revenue	$ 1,817	$ 1,868	$ 2,243
Research and development expenses	5,802	4,544	4,206
Selling, general and administrative expenses	28,109	22,359	21,629
Total	$ 35,728	$ 28,771	$ 28,078

Performance Share Awards. The award agreements for the PSAs provide that each PSA that vests represents the right to receive one share of the Company's common stock at the end of the performance period. The number of shares that vest and are issued to the recipient is based upon the Company's performance with respect to specified targets at the end of the three-year performance period. PSAs granted since 2021 have two weighted performance targets: (i) the Company's compound annual growth rate (CAGR), a performance condition and (ii) relative total shareholder return (TSR), a market condition, both measured over the three-year performance period. TSR is measured against the Nasdaq Health Care Index constituents and the 20-trading-day average stock price prior to the start and end of the performance period. PSAs granted in 2021 have payout opportunities ranging from 0% to 200% of the target amount, based on equally weighted performance targets. PSAs granted beginning in 2022 have payout opportunities ranging from 0% to 300% of the target amount. PSAs granted in 2022 are weighted 60% on the CAGR performance target and 40% on the TSR performance target. PSAs granted in 2023 are weighted 75% on the CAGR performance target and 25% on the TSR performance target. These ranges are used to determine the number of shares that will be issuable when the award vests. The performance and market condition payouts will be determined independently and accumulated to determine the total payout for the three-year performance period, subject to the maximum payout defined in the PSA agreements. All or a portion of the PSAs may vest following a change of control or a termination of service by reason of death or disability.

(In Thousands, Except Per Share Amounts)

PSA activity at target attainment under the plans during 2023 was as follows:

Performance Share Awards	Number of Shares Outstanding	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2023	213	$ 90.70
Awarded	236	46.16
Vested	(96)	89.36
Forfeited	—	—
Outstanding at December 31, 2023	353	$ 61.09

During the year ended December 31, 2023, the 2021 PSAs with a TSR performance target vested at the target threshold, while 2021 PSAs with a CAGR performance target vested over the target threshold. An additional 43 shares were earned that are excluded from plan activity above. The total fair value of performance share awards vested during 2023, 2022 and 2021 was $4,955, $5,185 and $8,165.

In determining compensation expense, the fair value of performance share awards with a performance condition is based on the market value of the Company's stock on the grant date of the awards. The fair value of performance share awards with a market condition is estimated on the grant date using a Monte Carlo simulation and includes the following assumptions:

	2023	2022	2021
Stock price	$ 38.81	$39.94 - $69.59	$ 66.31
Expected term (years)	2.8	2.6 to 2.8	2.8
Company volatility	44.80%	43.50 - 46.90%	42.10%
Market index average volatility	91.00%	90.30 - 92.00%	91.00%
Market index average correlation	32.20%	33.50 - 35.40%	31.50%
Risk-free interest rate	4.60%	1.40 - 2.70%	0.20%
Dividend yield	0.00%	0.00%	0.00%

The expected term is estimated as the remaining performance period at the grant date. Expected volatility is estimated based on the Company and daily trading prices of the market index, adjusted for dividends and stock splits over the remaining performance period. The risk-free interest rate is based upon the US Constant Maturity yield curve at the time of grant for the expected term of the performance share awards. Based on the assumptions above, the weighted average estimated grant date fair value per share and expense was as follows:

	2023	2022	2021
Weighted average estimated grant date fair value	$ 46.16	$ 91.05	$ 89.36
Expense	11,417	8,731	8,095

As of December 31, 2023, $11,610 of unrecognized compensation costs related to non-vested performance share awards are expected to be recognized over a weighted-average period of 1.7 years.

(In Thousands, Except Per Share Amounts)

Restricted Stock Awards and Units. Restricted stock awards and restricted stock units granted generally vest at a rate of 33.3% on the first, second and third anniversaries of the grant date. Activity under the plans during 2023 was as follows:

Restricted Stock Awards	RSA Shares Outstanding	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2023	598	$ 60.00
Awarded	751	39.21
Released	(338)	54.08
Forfeited	(29)	50.25
Outstanding at December 31, 2023	982	$ 46.43

The total fair value of restricted stock vested during 2023, 2022 and 2021 was $13,824, $23,242 and $40,510.

In determining compensation expense, the fair value of restricted stock awards and restricted stock units is based on the market value of the Company's stock on the grant date of the awards. The weighted average estimated grant date fair value per share and expense was as follows:

	2023	2022	2021
Weighted average estimated grant date fair value	$ 39.21	$ 63.14	$ 67.51
Expense	21,797	17,621	17,746

As of December 31, 2023, $28,202 of unrecognized compensation costs related to non-vested performance share are expected to be recognized over a weighted-average period of 1.9 years.

Stock Options. Stock options granted generally vest at a rate of 33.3% on the first, second and third anniversaries of the grant date and expire ten years from the date of grant. Activity under the plans during 2023 was as follows:

Time-Based Stock Options	Number of Shares Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2023	481	$ 29.34		
Granted	—	—		
Exercised	(137)	16.93		
Forfeited	(12)	64.93		
Outstanding at December 31, 2023	332	$ 33.20	4.0	$ 3,584
Vested and expected to vest	332	$ 33.15	4.0	$ 3,584
Exercisable at December 31, 2023	308	$ 30.22	3.7	$ 3,584

The total intrinsic value of options exercised during the years ended December 31, 2023, 2022 and 2021 was $2,982, $5,565 and $27,318. As a result of the Company's full valuation allowance on its net deferred tax assets, no tax benefit was recognized related to the stock option exercises. The exercise price per share of each option is equal to the fair market value of the underlying share on the date of grant. For 2023, 2022 and 2021, $2,316, $1,816 and $8,175 in cash proceeds from the exercise of stock options were included in the Consolidated Statements of Cash Flows.

The fair value of options is estimated on the grant date using the Black-Scholes model. No options were granted during 2023 or 2022.

(In Thousands, Except Per Share Amounts)

Options granted in 2021 included the following assumptions:

	2021
Range of risk-free interest rate	0.43 - 1.22%
Range of expected life of stock options (years)	5.3 to 5.7
Range of expected volatility of stock	40.00 - 43.00%
Weighted-average volatility	41.84%
Dividend yield	0.00%

The Company's estimate of volatility is based solely on the Company's stock price over the expected option life. The risk-free interest rate assumption is based upon the U.S. treasury yield curve at the time of grant for the expected option life. The Company estimates the expected terms of options using historical employee exercise behavior. Based on the assumptions noted above, the weighted average estimated grant date fair value per share and expense was as follows:

	2023	2022	2021
Weighted average estimated grant date fair value	$ —	$ —	$ 27.31
Expense	765	1,012	981

As of December 31, 2023, $287 of unrecognized compensation costs related to non-vested stock options are expected to be recognized over a weighted-average period of 0.5 years.

Employee Stock Purchase Plan

Under the ESPP, shares of the Company's common stock may be purchased at a discount (15%) to the lesser of the closing price of the Company's common stock on the first or last trading day of the offering period. The offering period (currently six months) and the offering price are subject to change. Participants may not purchase more than $25 of the Company's common stock in a calendar year and may not purchase a value of more than 3 shares during an offering period. As of December 31, 2023, 782 shares are available for future issuance under the ESPP. ESPP expense was $1,749, $1,407 and $1,256 for the years ended December 31, 2023, 2022 and 2021.

15. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

In addition to net (loss) income, comprehensive (loss) income includes foreign currency translation adjustments and unrealized losses on investments. Accumulated other comprehensive income (loss) consisted of the following, net of tax:

	2023	2022	2021
Total accumulated other comprehensive (loss) income at beginning of period	$ (4,096)	$ (948)	$ 312
Unrealized (losses) gains on investments			
Balance at beginning of period	$ (3,698)	$ (887)	$ 54
Other comprehensive income (loss) before reclassifications	2,898	(2,739)	(941)
Amounts reclassified from accumulated other comprehensive income (loss) to interest income	—	(72)	—
Balance at end of period	$ (800)	$ (3,698)	$ (887)
Foreign currency translation adjustment			
Balance at beginning of period	$ (398)	$ (61)	$ 258
Other comprehensive income (loss) before reclassifications	154	(774)	(768)
Amounts reclassified from accumulated other comprehensive (loss) income to other (expense) income	51	437	449
Balance at end of period	$ (193)	$ (398)	$ (61)
Total accumulated other comprehensive loss at end of period	$ (993)	$ (4,096)	$ (948)

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the President and Chief Executive Officer (the Principal Executive Officer) and Chief Financial Officer (the Principal Accounting and Financial Officer), has evaluated the effectiveness of the Company's disclosure controls and procedures as defined in Rule 13(a) – 15(e) of the Securities Exchange Act of 1934 (Exchange Act), as of the end of the period covered by this report. Based on this evaluation, we concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's forms and rules, and the material information relating to the Company is accumulated and communicated to management, including the President and Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that control objectives are met. Because of inherent limitations in all control systems, no evaluation of controls can provide assurance that all control issues and instances of fraud, if any, within a company will be detected. Additionally, controls can be circumvented by individuals, by collusion of two or more people or by management override. Over time, controls can become inadequate because of changes in conditions or the degree of compliance may deteriorate. Further, the design of any system of controls is based in part upon assumptions about the likelihood of future events. There can be no assurance that any design will succeed in achieving its stated goals under all future conditions. Because of the inherent limitations in any cost-effective control system, misstatements due to errors or fraud may occur and not be detected.

Changes in Internal Control over Financial Reporting

In the ordinary course of business, we routinely enhance our information systems by either upgrading current systems or implementing new ones. There were no changes in our internal control over financial reporting that occurred during the three or twelve months ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements. The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2023. No matter how well designed, because of inherent limitations in all control systems, internal control over financial reporting may not prevent or detect misstatements should they occur. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the control procedures may deteriorate. In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control-Integrated Framework (2013)*. Based on such assessment, management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2023.

Deloitte & Touche LLP, the Company's independent registered public accounting firm, has audited the Consolidated Financial Statements included in this Annual Report on Form 10-K and, as part of its audit, has issued an attestation report on the effectiveness of the Company's internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of
AtriCure, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of AtriCure, Inc. and subsidiaries (the "Company") as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2023, of the Company and our report dated February 16, 2024, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Deloitte & Touche LLP

Cincinnati, Ohio
February 16, 2024

ITEM 9B. OTHER INFORMATION

During the quarter ended December 31, 2023, except as described below, none of our executive officers or directors adopted or terminated a "Rule 10b5-1(c) trading arrangement" or a “non-Rule 10b5-1 trading arrangement” (as each term is defined in Item 408 of Regulation S-K).

On December 12, 2023, Justin J. Noznesky, our Chief Marketing and Strategy Officer, adopted a trading plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). Mr. Noznesky's plan covers the sale of up to 9,273 shares of our common stock between March 12, 2024 and June 28, 2024. Transactions under the plan were based upon pre-established dates and stock price thresholds.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this item with respect to the Company’s Directors is contained in our definitive proxy statement (the “Proxy Statement”) for our 2024 Annual Meeting of Stockholders under the heading “Proposal One—Election of Directors” and is incorporated herein by reference.

The information required by this item with respect to the Company’s Executive Officers is contained in the Proxy Statement under the heading “Management” and is incorporated herein by reference.

The information required by this item with respect to compliance with Section 16(a) of the Exchange Act is contained in the Proxy Statement under the heading “Delinquent Section 16(a) Reports” and is incorporated herein by reference.

The information required by this item with respect to the Company’s code of ethics that applies to directors, officers and employees, including the Company’s principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions, is contained in the Proxy Statement under the heading “Corporate Governance Guidelines—Code of Conduct” and is incorporated herein by reference.

The information required by this item with respect to the procedures by which security holders may recommend nominees to the Board is contained in the Proxy Statement under the heading “Questions and Answers” and is incorporated herein by reference.

The information required by this item with respect to the Company’s Audit Committee, including the Audit Committee’s members and its financial experts, is contained in the Proxy Statement under the heading “Committees of the Board—Audit Committee” and is incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item with respect to executive compensation and director compensation is contained in the Proxy Statement under the headings “Executive Compensation” and “Director Compensation” and is incorporated herein by reference.

The information required by this item with respect to compensation committee interlocks and insider participation is contained in the Proxy Statement under the heading “Compensation Committee Interlocks and Insider Participation” and is incorporated herein by reference.

The Compensation Committee report required by this item is contained in the Proxy Statement under the heading “Executive Compensation—Report of the Compensation Committee of the Board of Directors” and is incorporated herein by reference.

The information required by this item with respect to compensation policies and practices as they relate to the Company’s risk management is contained in the Proxy Statement under the heading “Compensation Discussion and Analysis” and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table summarizes information about our equity compensation plans as of December 31, 2023.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights [1] (a)	Weighted-average exercise price of outstanding options, warrants and rights [2] (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders [3]	1,667,626	$ 33.20	2,237,742
Equity compensation plans not approved by security holders	—	—	—
Total	1,667,626	$ 33.20	2,237,742

(1) Represents outstanding stock options, restricted stock awards and performance shares as of December 31, 2023.
(2) The weighted average exercise price is calculated without taking into account restricted stock that will become issuable, without any cash consideration or other payment, as vesting requirements are achieved.
(3) Amounts include awards under our 2023 Stock Incentive Plan (and prior plans, the 2005 Equity Incentive Plan and 2014 Stock Incentive Plan) but exclude shares purchased under our 2018 Employee Stock Purchase Plan.

The information required by this item with respect to security ownership of certain beneficial owners and management is contained in the Proxy Statement under the heading “Security Ownership of Certain Beneficial Owners and Management” and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item with respect to director independence is contained in the Proxy Statement under the heading “Corporate Governance and Board Matters – Independence of the Board” and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information required by this item with respect to audit fees, tax fees and the Audit Committee’s pre-approval policies and procedures are contained in the Proxy Statement under the heading “Proposal Two-Ratification of Appointment of Independent Registered Public Accounting Firm” and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(1) The financial statements required by Item 15(a) are filed in Item 8 of this Form 10-K.

(2) The financial statement schedules required by Item 15(a) are filed in Item 8 of this Form 10-K.

(3) The following exhibits are included in this Form 10-K or incorporated by reference in this Form 10-K:

Exhibit No.	Description
3.1	Second Amended and Restated Certificate of Incorporation (incorporated by reference to our Current Report on Form 8-K filed on May 27, 2016).
3.2	Fourth Amended and Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed on February 16, 2018).
4.1	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to our Annual Report on Form 10-K filed on February 24, 2020).
10.1#	Employment Agreement, dated as of November 1, 2012, between AtriCure, Inc. and Michael H. Carrel (incorporated by reference to our Current Report on Form 8-K filed on November 1, 2012).
10.2#	2005 Equity Incentive Plan, as amended on September 19, 2007 and on March 6, 2013 (incorporated by reference to our Annual Report on Form 10-K filed on March 8, 2013).
10.3#	AtriCure, Inc. 2014 Stock Incentive Plan (Amended and Restated as of May 25, 2022) (incorporated by reference to our Current Report on Form 8-K filed on May 27, 2022).
10.4#	AtriCure, Inc. 2023 Stock Incentive Plan (incorporated by reference to our Current Report on Form 8-K filed on May 26, 2023).
10.5#	AtriCure, Inc. 2018 Employee Stock Purchase Plan (Amended and Restated as of May 25, 2023) (incorporated by reference to our Current Report on Form 8-K filed on May 26, 2023).
10.6#	Form of Change in Control Agreement between AtriCure and AtriCure Executive Officers (incorporated by reference to our Annual Report on Form 10-K filed on March 8, 2013).
10.7	Loan and Security Agreement dated as of February 23, 2018 by and among Silicon Valley Bank, AtriCure, Inc., AtriCure, LLC, Endoscopic Technologies, LLC and nContact Surgical, LLC (incorporated by reference to our Current Report on Form 8-K filed on February 26, 2018).
10.8	Lease Agreement Dated August 20, 2014 between LM-VP AtriCure, LLC, as Landlord, and AtriCure, Inc., as Tenant (incorporated by reference to our Current Report on Form 8-K filed on August 25, 2014).
10.9	JPMorgan Credit Agreement, dated January 5, 2024 (incorporated by reference to our Current Report on Form 8-K filed on January 8, 2024).
10.10#	Form of Restricted Stock Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.11#	Form of Stock Option Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.12#	Form of Restricted Share Unit Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.13	First Loan Modification Agreement dated December 28, 2018 among AtriCure, Inc., Silicon Valley Bank, the lenders named therein, AtriCure, LLC, Endoscopic Technologies, LLC and nContact Surgical, LLC (incorporated by reference to our Current Report on Form 8-K filed on January 3, 2019).
10.14	Second Amendment to Loan and Security Agreement dated August 12, 2019 among AtriCure, Inc., Silicon Valley Bank, and the other parties named therein (incorporated by reference to our Current Report on Form 8-K filed on August 11, 2019).
10.15	Joinder and Third Amendment to Loan and Security Agreement dated September 27, 2019 (incorporated by reference to our Quarterly Report on Form 10-Q filed on October 31, 2019).
10.16	Fourth Amendment to Loan and Security Agreement dated April 29, 2020 among AtriCure, Inc., Silicon Valley Bank and the other parties named therein (incorporated by reference to our Current Report on Form 8-K filed on April 29, 2020).

Exhibit No.	Description
10.17	Fifth Amendment to Loan and Security Agreement dated February 8, 2021 among AtriCure, Inc., Silicon Valley Bank and the other parties named therein (incorporated by reference to our Annual Report on Form 10-K filed on February 26, 2021).
10.18§	Sixth Amendment to Loan and Security Agreement dated November 1, 2021 among AtriCure, Inc., Silicon Valley Bank and other parties named therein (incorporated by reference to our Quarterly Report on Form 10-Q filed on November 4, 2021).
10.19#	Form of Performance Share Award Agreement for Awards Granted in 2021 (incorporated by reference to our Annual Report on Form 10-K filed on February 26, 2021).
10.20#	Form of Performance Share Award Agreement for Awards Granted in 2022 (incorporated by reference to our Annual Report on Form 10-K filed on February 22, 2023).
10.21#	AtriCure, Inc. Executive Leadership Severance Policy (incorporated by referenced to our Annual Report on Form 10-K filed on February 17, 2022).
10.22#	Form of Performance Share Award Agreement for Awards Granted in 2023.
10.23#	Form of Restricted Stock Award Agreement under the AtriCure, Inc. 2023 Stock Incentive Plan.
10.24#	Form of Restricted Share Unit Award Agreement under the AtriCure, Inc. 2023 Stock Incentive Plan.
14	Code of Conduct (incorporated by reference to our Annual Report on Form 10-K filed on February 22, 2023).
19	Insider Trading Policy.
21	Subsidiaries of the Registrant.
23.1	Consent of Deloitte & Touche LLP.
31.1	Rule 13a-14(a) Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Rule 13a-14(a) Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350 by the Chief Executive Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to 18 U.S.C. Section 1350 by the Chief Financial Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
97	Incentive Compensation Recoupment Policy.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File

Compensatory plan or arrangement.

§ Certain portions of this exhibit have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The omitted information is not material and would likely cause competitive harm to the Registrant if publicly disclosed. The Registrant hereby agrees to furnish a copy of any omitted portion to the SEC upon request.

ITEM 16. FORM 10-K SUMMARY

Not provided.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Form 10-K to be signed on our behalf by the undersigned, thereunto duly authorized.

AtriCure, Inc.
(REGISTRANT)

Date: February 16, 2024

/s/ Michael H. Carrel

Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Date: February 16, 2024

/s/ Angela L. Wirick

Angela L. Wirick
Chief Financial Officer
(Principal Accounting and Financial Officer)

KNOW ALL WOMEN AND MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael H. Carrel and Angela L. Wirick, her or his attorney-in-fact, with the power of substitution, for her or him in any and all capacities, to sign any and all amendments to this Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the U.S. Securities and Exchange Commission, granting unto said attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done therewith, as fully to all intents and purposes as she or he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact, and any of them or her or his substitute or substitutes, may do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities indicated on February 16, 2024.

Signature	Title(s)
/s/ B. Kristine Johnson **B. Kristine Johnson**	**B. Kristine Johnson** *Chair of the Board*
/s/ Michael H. Carrel **Michael H. Carrel**	**Michael H. Carrel** *Director, President and Chief Executive Officer (Principal Executive Officer)*
/s/ Regina E. Groves **Regina E. Groves**	**Regina E. Groves** *Director*
/s/ Shlomo Nachman **Shlomo Nachman**	**Shlomo Nachman** *Director*
/s/ Karen N. Prange **Karen N. Prange**	**Karen N. Prange** *Director*
/s/ Deborah H. Telman **Deborah H. Telman**	**Deborah H. Telman** *Director*
/s/ Sven A. Wehrwein **Sven A. Wehrwein**	**Sven A. Wehrwein** *Director*
/s/ Robert S. White **Robert S. White**	**Robert S. White** *Director*
/s/ Maggie Yuen **Maggie Yuen**	**Maggie Yuen** *Director*

Exhibit 10.22

ATRICURE, INC.
2014 STOCK INCENTIVE PLAN

PERFORMANCE SHARE AWARD AGREEMENT

Summary of Performance Share Award Grant

AtriCure, Inc., a Delaware corporation (the "Company"), grants to the Grantee named below, in accordance with the terms of the 2014 Stock Incentive Plan (as amended and restated from time to time, the "Plan"), and this Performance Share Award Agreement (the "Agreement"), Performance Shares as follows:

Name of Grantee:	_____
Grant Number:	_____
Grant Date:	_____
Performance Goals:	As set forth on Exhibit A
Performance Period:	As set forth on Exhibit A

Terms of Agreement

1. Grant of Performance Shares. Subject to and upon the terms, conditions, and restrictions set forth in this Agreement and in the Plan, the Company grants to the Grantee as of the Grant Date, Performance Share Award consisting of, the maximum number Common Stock of the Company ("Performance Shares") as provided in Exhibit A, upon the terms and conditions of this Agreement.

2. Eligibility. The Grantee shall hold a position within the Company or any Subsidiary that is recommended by the Company's Chief Executive Officer and/or the award contemplated hereby shall be approved by the Compensation Committee of the Company ("Committee").

3. Vesting and Earning of Performance Shares.

(a) The period during which the Performance Goals are measured shall be a three-year period, beginning in the year of the Grant Date and ending on December 31 of the third year (the "Performance Period").

(b) The number of Performance Shares earned by the Grantee will be determined at the end of the Performance Period based on the Performance Goals set forth on Exhibit A. Except as provided in Section 4 or Exhibit A, Performance Shares will vest and become nonforfeitable, if at all, on the last day of the Performance Period provided that the Grantee has remained continuously employed by the Company or any Subsidiary from the Grant Date through the last day of the Performance Period (the "Vesting Date").

(c) If the Grantee is hired by the Company or promoted within the Company prior to October 1 of any fiscal year within the Performance Period and is thereby granted Performance Shares under this Agreement, the Performance Shares shall be earned on a pro-rata basis beginning on the effective date of this Agreement until the end of the Performance Period as set forth on Exhibit A.

(d) Following the completion of the Performance Period and no later than 90 days following the end of the Performance Period, the Committee shall determine in writing the extent, if any, that the Performance Goals have been satisfied and shall determine the number of Performance Shares that Grantee shall earn, if any, subject to this Agreement. The Company shall deliver to the Grantee any and all Performance Shares earned by Grantee not later than 90 days after the completion of the Performance Period. The Committee may, in its sole discretion, modify the Performance Goals, in whole or in part, as the Committee deems appropriate and equitable to reflect a change in the business (including, without limitation, the Company's acquisition of another business or company), operations, corporate structure or capital structure of the Company or its Subsidiaries, the manner in which it conducts its business, or other events or circumstances.

4. Termination of Continuous Employment.

(a) Except as otherwise provided in Sections 4(b), 4(c), or 4(d), if the Grantee's continuous employment with the Company or a Subsidiary is terminated prior to the Vesting Date, the Grantee's unvested Performance Shares shall be automatically forfeited upon such termination of continuous employment and neither the Company nor any Subsidiary shall have any further obligations under this Agreement.

(b) If the Grantee's continuous employment with the Company or any Subsidiary terminates due to a permanent and total disability (a "Permanent Disability") within the meaning of Section 22(e)(3) of the Code, the Grantee's employment with the Company or any Subsidiary shall, for all purposes under this Agreement, be deemed to continue. If Grantee dies while suffering a Permanent Disability, Grantee's estate shall have the rights to Shares underlying Performance Shares on the terms set forth in Section 4(c).

(c) If a "Change in Control" (as defined in the Plan) described in Section 2(i) of the Plan occurs while the Grantee is employed by the Company or any Subsidiary or if the Grantee dies, in either case at any time prior to the end of the Performance Period, then the Grantee shall be deemed to have earned the number of Performance Shares equal to the greater of (A) the Target Number of Performance Shares identified on Exhibit A to this Agreement or (B) the number of Performance Shares which would have vested based on the actual performance of the Company had the Performance Period ended on the date of the last fiscal quarter immediately prior to the date that the Company executes a definitive agreement ("CIC Date") pursuant to which a Change in Control occurs. Upon such Change in Control or death of the Grantee, as the case may be, the Company shall deliver to Grantee (or Grantee's estate in the case of death) the Shares underlying all Performance Shares earned in accordance with this Section 4(c). The Committee shall have the authority to determine the extent to which Performance Goals with respect to the Performance Period (as shortened to end on the CIC Date) have been met based on such audited or unaudited financial information or other information, such as the Company's stock price or the performance of the Nasdaq Health Care Index constituents, then available that the Committee deems relevant so that the vesting contemplated by this Section 4(c) reflects the actual performance of the Company achieved immediately prior to the CIC Date.

(d) Notwithstanding anything contained in this Agreement to the contrary, the Committee may, in its sole discretion, accelerate the time at which the Shares underlying any

Performance Shares become vested and nonforfeitable on such terms and conditions as it deems appropriate upon a Change in Control or the death or Permanent Disability of Grantee.

5. Transferability. The Performance Shares may not be transferred and shall not be subject in any manner to assignment, alienation, pledge, encumbrance or charge, unless otherwise provided under the Plan. Any purported transfer or encumbrance in violation of the provisions of this Section 5 shall be void, and the other party to any such purported transaction shall not obtain any rights to or interest in such Performance Shares.

6. Dividend, Voting and Other Rights. Neither the Grantee nor any person claiming under or through the Grantee has any of the rights or privileges of a shareholder of the Company in respect of shares of Common Stock that may become deliverable hereunder unless and until certificates representing such shares of Common Stock have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered in certificate or book entry form to the Grantee or any person claiming under or through the Grantee.

7. Continuous Employment. For purposes of this Agreement, the continuous employment of the Grantee with the Company and its Subsidiaries shall not be deemed to have been interrupted, and the Grantee shall not be deemed to have ceased to be an employee of the Company and its Subsidiaries, by reason of the transfer of his employment among the Company and its Subsidiaries.

8. No Employment Contract. Nothing contained in this Agreement shall confer upon the Grantee any right with respect to continuance of employment by the Company and its Subsidiaries, nor limit or affect in any manner the right of the Company and its Subsidiaries to terminate the employment or adjust the compensation of the Grantee.

9. Relation to Other Benefits. Any economic or other benefit to the Grantee under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Grantee may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or a Subsidiary and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or a Subsidiary.

10. Taxes and Withholding. To the extent that the Company or any Subsidiary is required to withhold any federal, state, local, foreign or other tax in connection with the Performance Shares pursuant to this Agreement, it shall be a condition to earning the award that the Grantee make arrangements satisfactory to the Company or such Subsidiary for payment of such taxes required to be withheld. The Committee may, in its sole discretion, require the Grantee to satisfy such required withholding obligation by surrendering to the Company a portion of the Shares earned by the Grantee under this Agreement, and the Shares so surrendered by the Grantee shall be credited against any such withholding obligation at the Fair Market Value of such Shares on the date of surrender.

11. Adjustments. The number and kind of Shares deliverable pursuant to the Performance Shares are subject to adjustment as provided in the Plan.

12. Compliance with Law. The Company shall make reasonable efforts to comply with all applicable federal and state securities laws and listing requirements with respect to the Performance Shares; provided, however, notwithstanding any other provision of this Agreement, the Company shall not be obligated to deliver any Shares pursuant to this Agreement if the delivery of this Agreement would result in a violation of any such law or listing requirement.

13. Amendments. Subject to the terms of the Plan, the Committee may modify this Agreement upon written notice to the Grantee. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable to this Agreement. Notwithstanding the foregoing, no amendment of the Plan or this Agreement shall adversely affect the rights of the Grantee under this Agreement without the Grantee's consent unless the Committee determines, in good faith, that such amendment is required for the Agreement to either be exempt from the application of, or comply with, the requirements of Section 409A of the Code, or as otherwise may be provided in the Plan.

14. Compliance with Section 409A of the Code. It is intended that this Agreement shall either be exempt from the application of, or comply with, the requirements of Section 409A of the Code. This Agreement shall be construed, administered, and governed in a manner that effects such intent, and the Committee shall not take any action that would be inconsistent with such intent. Without limiting the foregoing, the Performance Shares shall not be deferred, accelerated, extended, paid out, settled, adjusted, substituted, exchanged or modified in a manner that would cause the award to fail to satisfy the conditions of an applicable exception from the requirements of Section 409A of the Code or otherwise would subject the Grantee to the additional tax imposed under Section 409A of the Code. The amounts payable pursuant to this Agreement are intended to be separate payments that qualify for the "short-term deferral" exception to Section 409A of the Code to the maximum extent possible.

15. Severability. In the event that one or more of the provisions of this Agreement shall be invalidated for any reason by a court of competent jurisdiction, any provision so invalidated shall be deemed to be separable from the other provisions of this Agreement, and the remaining provisions of this Agreement shall continue to be valid and fully enforceable.

16. Relation to Plan. This Agreement is subject to the terms and conditions of the Plan. This Agreement and the Plan contain the entire agreement and understanding of the parties with respect to the subject matter contained in this Agreement, and supersede all prior written or oral communications, representations and negotiations with respect to this Agreement. In the event of any inconsistency between the provisions of this Agreement and the Plan, the Plan shall govern. Capitalized terms used of this Agreement without definition shall have the meanings assigned to them in the Plan. The Committee acting pursuant to the Plan, as constituted from time to time, shall, except as expressly provided otherwise of this Agreement, have the right to determine any questions which arise in connection with the grant of the Performance Shares.

17. Successors and Assigns. Without limiting Section 5, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, administrators, heirs, legal representatives and assigns of the Grantee, and the successors and assigns of the Company.

18. Governing Law. The interpretation, performance, and enforcement of this Agreement shall be governed by the laws of the State of Delaware, without giving effect to the principles of conflict of laws of this Agreement.

19. Electronic Delivery. The Grantee consents and agrees to electronic delivery of any documents that the Company may elect to deliver (including, but not limited to, prospectuses, prospectus supplements, grant or award notifications and agreements, account statements, annual and quarterly reports, and all other forms of communications) in connection with this and any other award made or offered under the Plan. The Grantee understands that, unless earlier revoked by the Grantee by giving written notice to the Chief Financial Officer of the Company, this consent shall be effective for the duration of the Agreement. The Grantee also understands that he or she shall have the right at any time to request that the Company deliver written copies of any and all materials referred to above at no charge. The Grantee consents to

any and all procedures the Company has established or may establish for an electronic signature system for delivery and acceptance of any such documents that the Company may elect to deliver, and agrees that his or her electronic signature is the same as, and shall have the same force and effect as, his or her manual signature. The Grantee consents and agrees that any such procedures and delivery may be effected by a third party engaged by the Company to provide administrative services related to the Plan.

20. Clawback. In the event the Company is required to prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under federal securities laws, the Board of Directors shall require reimbursement to the Company of any Performance Shares made to Grantee where: (i) the payment was predicated upon achieving certain financial results that were subsequently the subject of a substantial restatement of Company financial statements filed with the SEC; (ii) the members of the Board of Directors who are considered "independent" for purposes of the listing standards of Nasdaq determine Grantee engaged in intentional misconduct that caused or substantially caused the need for the accounting restatement; and (iii) a lower payment would have been made to Grantee based upon the restated financial results. In each such instance, the Company will, to the extent practicable, seek to recover from Grantee the amount by which any Performance Shares paid to such Grantee for the relevant period exceeded the lower payment that would have been made based on the restated financial results.

The Company has caused this Agreement to be executed on its behalf by its duly authorized officer and the Grantee has also executed this Agreement, as of the Grant Date.

ATRICURE, INC.

By:_____
Name: Michael H. Carrel
Title: President & Chief Executive Officer

ATRICURE, INC.

By:_____
Name: Angela L. Wirick
Title: Chief Financial Officer

The undersigned acknowledges that a copy of the Plan, Plan Summary and Prospectus, and the Company's most recent Annual Report and Proxy Statement (the "Prospectus Information") are available for viewing on the Company's internet site at www.atricure.com. The Grantee consents to receiving this Prospectus Information electronically, or, in the alternative, agrees to contact the Company's Chief Financial Officer at (513) 755-4100 to request a paper copy of the Prospectus Information at no charge. The Grantee represents that he or she is familiar with the terms and provisions of the Prospectus Information and accepts the award of Performance Shares on the terms and conditions set forth of this Agreement and in the Plan.

_____
Grantee
Date:_____

ALTERNATIVE FOR ELECTRONIC SIGNATURE

You may accept the award online or by telephone in accordance with the procedures established by the Company and the Plan administrator. By accepting your award in accordance with these procedures, you acknowledge that a copy of the Plan, Plan Summary and Prospectus, and the Company's most recent Annual Report and Proxy Statement (the "Prospectus Information") either have been received by you or are available for viewing on the Company's internet site at www.atricure.com, and consent to receiving this Prospectus Information electronically, or, in the alternative, agree to contact the Company's Chief Financial Officer at (513) 755-4100 to request a paper copy of the Prospectus Information at no charge. You also represent that you are familiar with the terms and provisions of the Prospectus Information and accept the award on the terms and conditions set forth of this Agreement and in the Plan. These terms and conditions constitute a legal contract that will bind both you and the Company as soon as you accept the award as described above.

EXHIBIT A

PERFORMANCE GOALS AND PERFORMANCE PERIOD

Performance will be measured 75% on revenue growth (Revenue CAGR) and 25% on relative total shareholder return (TSR), as described further below

- Performance on each metric will be measured over a three-year (2023-2025) period
- Performance for the Revenue CAGR is relative to fiscal year 2022 (Base Year)
- The revenue and TSR component payouts (in shares) will be determined independently and then added together for the total payout for the three-year performance period, subject to the maximum defined in the payout range below

Possible Payout as a Percentage of Target Award	
	2023-2025
Payout Range*	0% - 300%
Scheduled Vest Date**	December 31, 2025
*Payout as a percentage of target number of Performance Shares subject to this award ** Subject to Section 3 of the Agreement, Scheduled Vest Date is later of date indicated or the date the Committee determines whether and the extent to which the performance criteria have been satisfied and the number of Performance Shares earned, if any **[March 1, 2026]**	

Revenue CAGR Component (75%)			
• Revenue compound annual growth rate (CAGR)			
• Acquisitions and other business developments may result in adjustments pursuant to Section 3 of the Agreement			
Revenue CAGR			
	2023-2025	**Payout***	**Number of Performance Shares**
Maximum	>=26%	300%	
Stretch	22%	200%	
Target	**18%**	**100%**	
Threshold	14%	50%	
Below Threshold	<14%	0%	0
*Payout as a percentage of target number of Performance Shares subject to this award; linear interpolation between goals			

Relative Total Shareholder Return (TSR) Component (25%)			
•TSR measured against the Nasdaq Health Care Index constituents			
•TSR will be measured as the 20-trading-day average stock price prior to the end of the performance period over the 20-trading-day average stock price prior to the beginning of the performance period			
•Payout under this component will be capped at target if AtriCure's TSR is negative			
Relative TSR (expressed in percentiles)			
	2023-2025	**Payout***	**Number of Performance Shares**
Maximum	>=95th	300%	
Stretch	80th	200%	
Target	**55th**	**100%**	
Threshold	30th	50%	
Below Threshold	<30th	0%	0
*Payout as a percentage of target number of Performance Shares subject to this award; linear interpolation between goals			

The maximum number of Performance Shares in which the Grantee can vest on the basis of the actual level of Performance Goal attainment shall in no event exceed in the aggregate 300% of the number of Performance Shares set forth above.

Exhibit 10.23

ATRICURE, INC. 2023 STOCK INCENTIVE PLAN

RESTRICTED STOCK AWARD AGREEMENT FOR EMPLOYEES

ATRICURE, INC. (the "Company"), pursuant to the 2023 Stock Incentive Plan, as may be amended from time to time (the "Plan"), hereby irrevocably grants you (the "Participant"), on , 2023 (the "Grant Date") a Restricted Stock Award (the "Restricted Stock Award") of forfeitable shares of the Company's Common Stock, par value $0.001 per share (the "Restricted Stock") subject to the restrictions, terms and conditions herein.

WHEREAS, the Participant is an employee of the Company or a Subsidiary.

WHEREAS, the Compensation Committee (the "Committee") of the Board has determined that it would be in the best interests of the Company and its stockholders to grant the award provided for herein to the Participant, on the terms and conditions described in this Restricted Stock Award Agreement (the "Agreement").

NOW, THEREFORE, for and in consideration of the promises and the covenants of the parties contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto, for themselves, and their permitted successors and assigns, hereby agree as follows:

1. Terms and Conditions.

(a) Vesting. Subject to the terms and conditions contained in this Agreement and the Plan, including Section 14(b) of the Plan, the restrictions on the Restricted Stock shall lapse over the three years after the Grant Date (the "Restricted Period") as follows: (i) with respect to one third of the Restricted Stock, on the first anniversary of the Grant Date (the "First Vesting Date"); (ii) with respect to one third of the Restricted Stock, on the second anniversary of the Grant Date (the "Second Vesting Date"); and (iii) with respect to one third of the Restricted Stock, on the third anniversary of the Grant Date (the "Third Vesting Date", and collectively with the First Vesting Date and the Second Vesting Date, the "Vesting Dates"). Shares of Restricted Stock that have not yet vested pursuant to Section 1(a) shall be forfeited automatically without further action or notice if the Participant ceases to be employed by the Company or a Subsidiary other than as provided below. Subject to the terms and conditions of the Plan, including without limitation, Section 14(b) of the Plan, all of the Restricted Stock shall vest in full prior to the Vesting Dates upon the occurrence of any of the following: (A) the Participant dies while in the employ of the Company or a Subsidiary; (B) the Participant has a Disability that results in a separation from employment with Company or a Subsidiary; (C) the Participant satisfies the requirements for Retirement, including separation of service from the Company or a Subsidiary; or (D) a Change in Control occurs. If an offer letter or employment agreement to which Participant is a party with the Company or a Subsidiary provides for vesting in other circumstances, such as the Company or a Subsidiary terminating Participant's employment without Cause or Participant terminating employment for Good Reason, the terms and conditions relating to vesting in such offer letter or employment agreement shall apply.

(b) Book Entry; Payment. Upon vesting, the Committee shall cause _____ shares of Common Stock to be registered in the name of the Participant and held in book-entry form subject to the Company's directions. The Company's obligations with respect to

the Restricted Stock Award shall be satisfied in full upon such registration of the shares of Common Stock.

(c) Forfeiture. Except as otherwise determined by the Committee in its sole discretion or as set forth in this Agreement or the Plan, unvested shares of Restricted Stock shall be forfeited without consideration to the Participant upon the Participant's termination of service with the Company or a Subsidiary for any reason.

2. Restrictive Covenant Agreement; Clawback; Incorporation by Reference.

(a) Restrictive Covenant Agreement. This Restricted Stock Award is conditioned upon the Participant's agreement to this Agreement and compliance with any Restrictive Covenant and Confidentiality Agreement executed by the Participant in favor of the Company ("Restrictive Covenant Agreement").

(b) Clawback/Forfeiture. Notwithstanding anything to the contrary contained herein, the Restricted Stock Award may be forfeited without consideration if the Participant, as determined by the Committee in its sole discretion (i) engages in an activity that is in conflict with or adverse to the interests of the Company or any Affiliate, including but not limited to fraud or conduct contributing to any financial restatements or irregularities, or (ii) without the consent of the Company, while employed by or providing services to the Company or any Affiliate or after termination of such employment or service, violates a non-competition, non-solicitation or non-disclosure covenant or agreement between the Participant and the Company or any Affiliate, including without limitation, any Restrictive Covenant Agreement. If the Participant engages in any activity referred to in the preceding sentence, the Participant shall, at the sole discretion of the Committee, forfeit the amount of shares paid in respect of the Restricted Stock Award, including, without limitation, any and all shares and dividend equivalents, and repay such to the Company. If the Participant is subject to the reporting requirements of Section 16 of the Exchange Act, this Restricted Stock Award shall be subject to any other applicable compensation recovery policy adopted by the Company pursuant to Exchange Act Rule 10D.

(c) Incorporation by Reference. The provisions of the Plan are hereby incorporated herein by reference. Except as otherwise expressly set forth herein, this Agreement shall be construed in accordance with the provisions of the Plan and any capitalized terms not otherwise defined in this Agreement shall have the definitions set forth in the Plan. In the event that any provision of this Agreement is inconsistent with the terms of the Plan, the terms of this Agreement shall control. The Committee acting pursuant to the Plan, as constituted from time to time, shall, except as expressly provided otherwise herein, have the right to determine any questions which arise in connection with the grant of the Restricted Stock Award. The number and kind of shares deliverable pursuant to the Restricted Stock Award are subject to adjustment as provided in Section 12 of the Plan.

3. Compliance with Legal Requirements. The granting and delivery of the Restricted Stock Award, and any other obligations of the Company under this Agreement, shall be subject to all applicable federal, state, local and foreign laws, rules and regulations and to such approvals by any regulatory or governmental agency as may be required.

4. Transferability. No share of Restricted Stock may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant (with respect to Restricted Stock), until it has vested in accordance with Section 1(a), other than by will or by the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or any Affiliate.

5. Dividend, Voting and Other Rights. The Participant shall possess all incidents of ownership (including, without limitation, dividend and voting rights) with respect to the Restricted Stock Award granted pursuant to this Agreement as of the Grant Date. Notwithstanding the foregoing, any dividends or distributions on the Restricted Stock Award to be delivered to Participant shall be paid on the Vesting Date. Any accrued and unpaid dividends or distributions related to forfeited or cancelled share of Restricted Stock shall be forfeited and cancelled.

6. Relation to Other Benefits. Any economic or other benefit to the Participant under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Participant may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or a Subsidiary and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or a Subsidiary.

7. Taxes and Withholding. To the extent that the Company or any Subsidiary is required to withhold any federal, state, local, foreign or other tax in connection with the Restricted Shares pursuant to this Agreement, it shall be a condition to earning the award that the Participant make arrangements satisfactory to the Company or such Subsidiary for payment of such taxes required to be withheld. The Committee may, in its sole discretion, require the Participant to satisfy such required withholding obligation by surrendering to the Company a portion of the shares of Common Stock earned by the Participant under this Agreement, and the shares of Common Stock so surrendered by the Participant shall be credited against any such withholding obligation at the Fair Market Value of such shares of Common stock on the date of surrender.

8. Adjustments. The number and kind of shares of Common Stock deliverable pursuant to the Restricted Stock Award are subject to adjustment as provided in Section 12 of the Plan.

9. Section 409A. This Agreement is intended to be exempt from or comply with Section 409A of the Code and shall be construed and interpreted in a manner that is consistent with the requirements for avoiding additional taxes and penalties under Section 409A of the Code. Notwithstanding the foregoing, the Company makes no representations that the Restricted Stock Award provided under this Agreement complies with Section 409A of the Code and in no event shall the Company be liable for all or any portion of any taxes, penalties, interest or other expenses that may be incurred by the Participant on account of non-compliance with Section 409A of the Code.

10. Section 280G. If any payment or benefit due under this Restricted Stock Award, together with all other payments and benefits that the Participant is entitled to receive from the Company or any of its Affiliates, would (if paid) constitute an "excess parachute payment" (as defined in Code Section 280G(b)(1)), the amounts otherwise payable under this Restricted Stock Award may, at the discretion of the Committee, be limited to the minimum extent necessary to ensure that no portion thereof will fail to be tax-deductible to the Company (or an Affiliate) by reason of Code Section 280G or result in an excise tax payable pursuant to Code Section 4999. The determination of whether any payment or benefit would (if paid or provided) constitute an "excess parachute payment" will be made by the Committee.

11. Electronic Delivery. The Participant consents and agrees to electronic delivery of any documents that the Company may elect to deliver (including, but not limited to, prospectuses, prospectus supplements, grant or award notifications and agreements, account statements, annual and quarterly reports, and all other forms of communications) in connection with this and any other award made or offered under the Plan. The Participant understands that,

unless earlier revoked by the Participant by giving written notice to the Chief Financial Officer of the Company, this consent shall be effective for the duration of the Agreement. The Participant also understands that he or she shall have the right at any time to request that the Company deliver written copies of any and all materials referred to above at no charge. The Participant consents to any and all procedures the Company has established or may establish for an electronic signature system for delivery and acceptance of any such documents that the Company may elect to deliver, and agrees that his or her electronic signature is the same as, and shall have the same force and effect as, his or her manual signature. The Participant consents and agrees that any such procedures and delivery may be effected by a third party engaged by the Company to provide administrative services related to the Plan.

12. Miscellaneous.

(a) Waiver. Any right of the Company contained in this Agreement may be waived in writing by the Committee. No waiver of any right hereunder by any party shall operate as a waiver of any other right, or as a waiver of the same right with respect to any subsequent occasion for its exercise, or as a waiver of any right to damages. No waiver by any party of any breach of this Agreement shall be held to constitute a waiver of any other breach or a waiver of the continuation of the same breach.

(b) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(c) No Right to Retention. Nothing contained in this Agreement shall be construed as giving the Participant any right to be retained, in any position, as an employee, consultant, or director of the Company or its Affiliates or shall interfere with or restrict in any way the right of the Company or its Affiliates, which are hereby expressly reserved, to remove, terminate or discharge the Participant with or without Cause at any time for any reason whatsoever. For purposes of this Agreement, the continuous employment of the Participant with the Company and its Affiliates shall not be deemed to have been interrupted, and the Participant shall not be deemed to have ceased to be an employee of the Company and its Affiliates, by reason of the transfer of the Participant's employment among the Company and its Affiliates or a leave of absence approved by the Committee.

(d) Successors. The terms of this Agreement shall be binding upon and inure to the benefit of the Company, its successors and assigns, the Participant and the beneficiaries, executors, administrators, heirs and successors of the Participant.

(e) Entire Agreement. This Agreement and the Plan contain the entire agreement and understanding of the parties hereto with respect to the subject matter contained herein and supersede all prior communications, representations and negotiations in respect thereto. No change, modification or waiver of any provision of this Agreement shall be valid unless the same be in writing and signed by the parties hereto, except for any changes permitted without consent of the Participant under the Plan.

(f) Governing Law. This Agreement shall be construed and interpreted in accordance with the laws of the State of Delaware without regard to principles of conflicts of law thereof, or principles of conflicts of laws of any other jurisdiction which could cause the application of the laws of any jurisdiction other than the State of Delaware.

(g) Headings. The headings of the Sections hereof are provided for convenience only and are not to serve as a basis for interpretation or construction and shall not constitute a part of this Agreement.

(h) Amendments. Subject to the terms of the Plan, the Committee may modify this Agreement upon written notice to the Participant. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable hereto; provided, however, no amendment of the Plan or this Agreement shall adversely affect the rights of the Participant under this Agreement without the Participant's consent unless the Committee determines, in good faith, that such amendment is required for the Agreement to either be exempt from the application of, or comply with, the requirements of Section 409A of the Code, or as otherwise may be provided in the Plan.

The undersigned acknowledges that a copy of the Plan, Plan Summary and Prospectus, and the Company's most recent Annual Report and Proxy Statement (the "Prospectus Information") are available for viewing on the Company's intranet site at www.atricure.com. The Participant consents to receiving this Prospectus Information electronically, or, in the alternative, agrees to contact the Company's Chief Financial Officer at (513) 755-4100 to request a paper copy of the Prospectus Information at no charge. The Participant represents that he or she is familiar with the terms and provisions of the Prospectus Information and accepts the Award described herein on the terms and conditions set forth in this Agreement and in the Plan.

By accepting this Agreement through the online acceptance tool on E-Trade website, the Participant agrees to all of the terms and conditions in this Agreement and the Plan.

PARTICIPANT

_____

ATRICURE, INC.

By: _____
Michael H. Carrel
President and Chief Executive Officer

By: _____
Angela L. Wirick
Chief Financial Officer

Exhibit 10.24

ATRICURE, INC. 2023 STOCK INCENTIVE PLAN

RESTRICTED STOCK UNIT AWARD AGREEMENT FOR EMPLOYEES

ATRICURE, INC. (the "Company"), pursuant to the 2023 Stock Incentive Plan, as it may be amended from time to time (the "Plan"), hereby irrevocably grants you (the "Participant"), on _____, 2023 (the "Grant Date") a forfeitable Restricted Stock Unit Award (the "Restricted Unit Award") representing the right to receive shares of Company common stock, $.001 par value per share ("Common Stock"), subject to the restrictions, terms and conditions herein.

WHEREAS, the Participant is an employee of the Company or a Subsidiary.

WHEREAS, the Compensation Committee (the "Committee") of the Board of Directors of the Company (the "Board") has determined that it would be in the best interests of the Company and its stockholders to grant the award provided for herein to the Participant, on the terms and conditions described in this Restricted Stock Unit Award Agreement (including any Appendix attached hereto, the "Agreement").

NOW, THEREFORE, for and in consideration of the promises and the covenants of the parties contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto, for themselves, and their permitted successors and assigns, hereby agree as follows:

1. Terms and Conditions.

(a) Grant; Vesting. Subject to and upon the terms, conditions, and restrictions set forth in this Agreement and in the Plan, the Company hereby grants to the Participant as of the Grant Date, a total of restricted stock units ("Restricted Units") which shall be credited in a book entry account established for the Participant until payment in accordance with Section 1(b). Subject to the other terms and conditions contained in this Agreement and the Plan, the restrictions on the Restricted Units shall lapse over the three years after the Grant Date (the "Restricted Period") as follows: (i) with respect to one third of the Restricted Units, on the first anniversary of the Grant Date (the "First Vesting Date"); (ii) with respect to one third of the Restricted Units, on the second anniversary of the Grant Date (the "Second Vesting Date"); and (iii) with respect to one third of the Restricted Units, on the third anniversary of the Grant Date (the "Third Vesting Date", and collectively with the First Vesting Date and the Second Vesting Date, the "Vesting Dates"). Restricted Units that have not yet vested pursuant to this Section 1(a) shall be forfeited automatically without further action or notice if the Participant ceases to be employed by the Company other than as provided below. Subject to the terms and conditions of the Plan, including without limitation, Section 14(b) of the Plan, all of the Restricted Units shall vest in full prior to the Vesting Dates upon the occurrence of any of the following: (A) the Participant dies while in the employ of the Company or a Subsidiary; (B) the Participant has a Disability that results in a separation from employment with Company or a Subsidiary; (C) the Participant satisfies the requirements for Retirement, including separation of service from the Company- or a Subsidiary; or (D) a Change in Control occurs. If an offer letter or employment agreement to which Participant is a party with the Company or a Subsidiary provides for vesting in other circumstances, such as the Company or a Subsidiary terminating Participant's employment without Cause or Participant terminating employment for Good Reason, the terms and conditions relating to vesting in such offer letter or employment agreement shall apply.

(b) Payment; Share Ownership; Dividend Equivalents. The Company shall settle as soon as administratively possible after the applicable Vesting Date, any vested portion of the Restricted Unit Award by the payment to the Participant of one share of Common Stock (a "Share") for each vested Restricted Unit, subject to any applicable tax withholding requirements. If the Participant is deemed a Specified Employee at the time of the Vesting Date, then such payment will be delayed until the earlier of the date that is six months following the Vesting Date and the Participant's death. At no time prior to such Vesting Date shall the Participant be deemed for any purpose to be the owner of shares of Common Stock in connection with a Restricted Unit Award and the Participant shall have no right prior to applicable Vesting Dates to vote Shares in respect of the Restricted Unit Award. However, the Participant shall possess dividend equivalent payment rights with respect to the Restricted Units granted pursuant to this Agreement as of the Grant Date. Any dividend equivalent payment on the Restricted Units shall be based on the number of Restricted Units credited to the Participant as of the dividend record date and such credited dividend equivalent payment amount shall be paid in accordance with quarterly dividend declarations by the Board of Directors on the Common Stock. The Participant will not have any rights of a shareholder of the Company with respect to the Restricted Units until the delivery of the underlying Shares. The obligations of the Company under this Agreement will be merely that of an unfunded and unsecured promise of the Company to deliver Shares in the future, and the rights of the Participant will be no greater than that of an unsecured general creditor. No assets of the Company will be held or set aside as security for the obligations of the Company under this Agreement.

(c) Forfeiture. Except as otherwise determined by the Committee in its sole discretion or as set forth in Section 1(a), the unvested portion of Restricted Unit Awards shall be forfeited without consideration to the Participant upon the Participant's termination of employment with the Company or its Affiliates for any reason.

2. Restrictive Covenant Agreement; Clawback; Incorporation by Reference.

(a) Restrictive Covenant Agreement. This Restricted Unit Award is conditioned upon the Participant's agreement to this Agreement and compliance with any applicable Restrictive Covenant and Confidentiality Agreement executed by the Participant in favor of the Company ("Restrictive Covenant Agreement").

(b) Clawback/Forfeiture. Notwithstanding anything to the contrary contained herein, the Restricted Unit Award may be forfeited without consideration if the Participant, as determined by the Committee in its sole discretion (i) engages in an activity that is in conflict with or adverse to the interests of the Company or any Affiliate, including but not limited to fraud or conduct contributing to any financial restatements or irregularities, or (ii) without the consent of the Company, while employed by or providing services to the Company or any Affiliate or after termination of such employment or service, violates a non-competition, non-solicitation or non-disclosure covenant or agreement between the Participant and the Company or any Affiliate, including without limitation, any Restrictive Covenant Agreement. If the Participant engages in any activity referred to in the preceding sentence, the Participant shall, at the sole discretion of the Committee, forfeit the amount of Shares paid in respect of the Restricted Unit Award, including, without limitation, any and all Shares and dividend equivalents, and repay such to the Company.

(c) Incorporation by Reference. The provisions of the Plan are hereby incorporated herein by reference. Except as otherwise expressly set forth herein, this Agreement shall be construed in accordance with the provisions of the Plan and any capitalized terms not otherwise defined in this Agreement shall have the definitions set forth in the Plan. In the event that any provision of this Agreement is inconsistent with the terms of the Plan, the terms of this Agreement shall control. The Committee acting pursuant to the Plan, as constituted from time to

time, shall, except as expressly provided otherwise herein, have the right to determine any questions which arise in connection with the grant of the Restricted Unit Award. The number and kind of Shares deliverable pursuant to the Restricted Unit Award are subject to adjustment as provided in Section 12 of the Plan.

3. Compliance with Legal Requirements. The granting and delivery of Restricted Unit Award, as applicable, and any other obligations of the Company under this Agreement, shall be subject to all applicable federal, state, local and foreign laws, rules and regulations and to such approvals by any regulatory or governmental agency as may be required.

4. Transferability. No Restricted Unit Award may be assigned, alienated, pledged, attached, sold or otherwise transferred or encumbered by the Participant other than by will or by the laws of descent and distribution and any such purported assignment, alienation, pledge, attachment, sale, transfer or encumbrance shall be void and unenforceable against the Company or any Affiliate.

5. Section 280G. If any payment or benefit due under this Restricted Unit Award, together with all other payments and benefits that the Participant is entitled to receive from the Company or any of its Affiliates, would (if paid) constitute an "excess parachute payment" (as defined in Code Section 280G(b)(1)), the amounts otherwise payable under this Restricted Unit Award may, at the discretion of the Committee, be limited to the minimum extent necessary to ensure that no portion thereof will fail to be tax-deductible to the Company (or a related entity) by reason of Code Section 280G or result in an excise tax payable pursuant to Code Section 4999. The determination of whether any payment or benefit would (if paid or provided) constitute an "excess parachute payment" will be made by the Committee.

6. Miscellaneous.

(a) Waiver. Any right of the Company contained in this Agreement may be waived in writing by the Committee. No waiver of any right hereunder by any party shall operate as a waiver of any other right, or as a waiver of the same right with respect to any subsequent occasion for its exercise, or as a waiver of any right to damages. No waiver by any party of any breach of this Agreement shall be held to constitute a waiver of any other breach or a waiver of the continuation of the same breach.

(b) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(c) No Right to Employment. Nothing contained in this Agreement shall be construed as giving the Participant any right to be retained, in any position, as an employee, consultant, or director of the Company or its Affiliates or shall interfere with or restrict in any way the right of the Company or its Affiliates, which are hereby expressly reserved, to remove, terminate or discharge the Participant with or without Cause at any time for any reason whatsoever. Although over the course of employment terms and conditions of employment may change, the at-will term of employment of the Participant will not change. For purposes of this Agreement, the continuous employment of the Participant with the Company and its Affiliates shall not be deemed to have been interrupted, and the Participant shall not be deemed to have ceased to be an employee of the Company and its Affiliates, by reason of the transfer of the Participant's employment among the Company and its Affiliates or a leave of absence approved by the Committee.

(d) Successors. The terms of this Agreement shall be binding upon and inure to the benefit of the Company, its successors and assigns, the Participant and the beneficiaries, executors, administrators, heirs and successors of the Participant.

(e) Relation to Other Benefits. Any economic or other benefit to the Participant under this Agreement or the Plan shall not be taken into account in determining any benefits to which the Participant may be entitled under any profit-sharing, retirement or other benefit or compensation plan maintained by the Company or a Subsidiary and shall not affect the amount of any life insurance coverage available to any beneficiary under any life insurance plan covering employees of the Company or a Subsidiary.

(f) Taxes and Withholding. To the extent that the Company or any of its Affiliates is required to withhold any federal, state, local, foreign or other tax in connection with the Restricted Units or dividend equivalent payments thereon pursuant to this Agreement, it shall be a condition to earning the award that the Participant make arrangements satisfactory to the Company or any of its Affiliates for payment of such taxes required to be withheld. The Committee may, in its sole discretion, require the Participant to satisfy such required withholding obligation by surrendering to the Company a portion of the Shares earned by the Participant hereunder, and the Shares so surrendered by the Participant shall be credited against any such withholding obligation at the Fair Market Value of such Shares on the date of surrender or in such other reasonable manner as determined by the Company.

(g) Amendments. Subject to the terms of the Plan, the Committee may modify this Agreement upon written notice to the Participant. Any amendment to the Plan shall be deemed to be an amendment to this Agreement to the extent that the amendment is applicable hereto; provided, however, no amendment of the Plan or this Agreement shall adversely affect the rights of the Participant under this Agreement without the Participant's consent unless the Committee determines, in good faith, that such amendment is required for the Agreement to either be exempt from the application of, or comply with, the requirements of Section 409A of the Code, or as otherwise may be provided in the Plan.

(h) Section 409A of the Code. It is intended that the Restricted Units shall be exempt from the application of, or comply with, the requirements of Section 409A of the Code. The terms of this Agreement shall be construed, administered, and governed in a manner that effects such intent, and the Committee shall not take any action that would be inconsistent with such intent. Without limiting the foregoing, the Restricted Units shall not be deferred, accelerated, extended, paid out, settled, adjusted, substituted, exchanged or modified in a manner that would cause the award to fail to satisfy the conditions of an applicable exception from the requirements of Section 409A of the Code or otherwise would subject the Participant to the additional tax imposed under Section 409A of the Code. Notwithstanding the foregoing, the Company makes no representation that the Restricted Stock Units provided under this agreement comply with Section 409A of the Code and in no event shall the Company be liable for all or any portion of any taxes, penalties, interest or other expenses that may be incurred by the Participant on account of non-compliance with Section 409A of the Code.

(i) Entire Agreement. This Agreement, the Plan and, if applicable, the Restrictive Covenant Agreement contain the entire agreement and understanding of the parties hereto with respect to the subject matter contained herein and supersede all prior communications, representations and negotiations in respect thereto; provided, however, the Participant understands that the Participant may have an existing agreement(s) with the Company, through prior awards, acquisition of a prior employer or otherwise, that may include the same or similar covenants as those in any Restrictive Covenant Agreement, and acknowledges that any Restrictive Covenant Agreement is meant to supplement any such agreement(s) such that the covenants in the agreements that provide the Company with the

greatest protection enforceable under applicable law shall control, and that the parties do not intend to create any ambiguity or conflict that would release the Participant from the obligations the Participant has assumed under the restrictive covenants in any of these agreements, including any Restrictive Covenant Agreement. No change, modification or waiver of any provision of this Agreement shall be valid unless the same be in writing and signed by the parties hereto, except for any changes permitted without consent of the Participant under the Plan.

(j) Governing Law. This Agreement shall be construed and interpreted in accordance with the laws of the State of Delaware without regard to principles of conflicts of law thereof, or principles of conflicts of laws of any other jurisdiction which could cause the application of the laws of any jurisdiction other than the State of Delaware.

(k) Headings. The headings of the Sections hereof are provided for convenience only and are not to serve as a basis for interpretation or construction and shall not constitute a part of this Agreement.

(l) Electronic Delivery. The Participant consents and agrees to electronic delivery of any documents that the Company may elect to deliver (including, but not limited to, prospectuses, prospectus supplements, grant or award notifications and agreements, account statements, annual and quarterly reports, and all other forms of communications) in connection with this and any other award made or offered under the Plan. The Participant understands that, unless earlier revoked by the Participant by giving written notice to the Chief Financial Officer of the Company, this consent shall be effective for the duration of the Agreement. The Participant also understands that he or she shall have the right at any time to request that the Company deliver written copies of any and all materials referred to above at no charge. The Participant consents to any and all procedures the Company has established or may establish for an electronic signature system for delivery and acceptance of any such documents that the Company may elect to deliver, and agrees that his or her electronic signature is the same as, and shall have the same force and effect as, his or her manual signature. The Participant consents and agrees that any such procedures and delivery may be effected by a third party engaged by the Company to provide administrative services related to the Plan.

The undersigned acknowledges that a copy of the Plan, Plan Summary and Prospectus, and the Company's most recent Annual Report and Proxy Statement (the "Prospectus Information") are available for viewing on the Company's intranet site at www.atricure.com. The Participant consents to receiving this Prospectus Information electronically, or, in the alternative, agrees to contact the Company's Chief Financial Officer at (513) 755-4100 to request a paper copy of the Prospectus Information at no charge. The Participant represents that he or she is familiar with the terms and provisions of the Prospectus Information and accepts the Award described herein on the terms and conditions set forth in this Agreement and in the Plan.

By accepting this Agreement through the online acceptance tool on E-Trade website, the Participant agrees to all of the terms and conditions in this Agreement and the Plan.

ATRICURE, INC.

By:_____
Michael H. Carrel
President & Chief Executive Officer

By:_____
Angela L. Wirick
Chief Financial Officer

PARTICIPANT

_____
Name:

APPENDIX

ATRICURE, INC. 2023 STOCK INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT
(Non-U.S. Employees)

This Appendix includes additional terms and conditions that govern the Restricted Stock Units granted to the Participant if the Participant resides in one of the countries listed herein. The Appendix forms part of the Agreement. Capitalized terms used but not defined herein shall have the meanings ascribed to them in the Agreement and the Plan.

This Appendix also includes information regarding exchange controls and certain other issues of which the Participant should be aware with respect to the Participant's participation in the Plan. The information is based on the securities, exchange control and other laws in effect in the respective countries as of December 1, 2008. Such laws are often complex and change frequently. As a result, the Company strongly recommends that the Participant not rely on the information noted herein as the only source of information relating to the consequences of the Participant's participation in the Plan because the information may be out of date at the time the Participant vests in the Restricted Units or sells the shares acquired under the Plan.

In addition, the information contained herein is general in nature and may not apply to the Participant's particular situation, and the Company is not in a position to assure the Participant of any particular result. Accordingly, the Participant is advised to seek appropriate professional advice as to how the relevant laws in the Participant's country may apply to the Participant's situation.

Finally, if the Participant is a citizen or resident of a country other than the one in which the Participant is currently working, the information contained herein may not be applicable to the Participant.

Australia

Settlement of RSUs. Notwithstanding any discretion in the Plan or anything to the contrary in the Agreement, this grant of RSUs does not provide any right for you to receive a cash payment and RSUs are payable in Shares only.

Securities Law Information. If you acquire Shares under the Plan and you offer such Shares for sale to a person or entity resident in Australia, the offer may be subject to disclosure requirements under Australian law. You should obtain legal advice on your disclosure obligation prior to making any such offer.

Belgium

No country-specific terms apply.

Canada

Employee Tax Treatment

For Canadian federal income tax purposes, the RSU is intended to be treated as an agreement by the Company to sell or issue shares to the Employee and, as such, is intended to be subject to the rules in section 7 of the *Income Tax Act* (Canada). Under those rules, the Participant will be considered to have received an employment benefit at the time of settlement

of the vested RSUs equal to the full value of the Shares received, which amount will be taxed as employment income and will be subject to withholding at source.

Settlement

Notwithstanding any discretion in the Plan, the Notice or the Agreement to the contrary, settlement of the RSUs shall only be made in Shares issued by the Company from treasury and not, in whole or in part, in the form of cash or other consideration.

Foreign Share Ownership Reporting

If you are a Canadian resident, your ownership of certain foreign property (including shares of foreign corporations) in excess of $100,000 may be subject to ongoing annual reporting obligations. Please refer to CRA Form T1135 (Foreign Income Verification Statement) and consult your tax advisor for further details. It is your responsibility to comply with all applicable tax reporting requirements.

Securities Law Notice

The security represented by the Agreement was issued pursuant to an exemption from the prospectus requirements of applicable securities legislation in Canada. Participant acknowledges that as long as the Company is not a reporting issuer in any jurisdiction in Canada, the RSUs and the underlying Shares will be subject to an indefinite hold period and that the RSUs and the underlying Shares are subject to restrictions on their transfer pursuant to such applicable securities legislation. Participant further acknowledges that (i), unless permitted under applicable securities legislation, the Participant is not permitted to transfer the RSUs or the underlying Shares before the date that is 4 months and a day after the later of (a) the date of this Agreement and (b) the date the Company became a reporting issuer (as such term is defined under applicable securities legislation) in any province of territory in Canada; (ii) the certificates representing the RSUs and the underlying Shares will bear the legend required by applicable securities legislation indicating that the resale of such securities is restricted; and (iii) the Participant has been advised to consult the Participant's own legal counsel for full particulars of the resale restrictions applicable to the Participant.

Quebec: Consent to Receive Information in English

The following applies if you are a resident of Quebec: The parties acknowledge that it is their express wish that this Agreement, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. *Les parties reconnaissent avoir exigé la redaction en anglais de cette convention*, *ainsi que de tous documents exécutés, avis donnés et procedures judiciaries intentées, directement ou indirectement, relativement à la présente convention.*

France

Exchange Control Information. The Participant must comply with the exchange control regulations in France. The Participant may hold stock outside of France, provided the Participant declares any bank or stock account opened, held or closed abroad to the French tax authorities on an annual basis. Furthermore, the Participant must declare to the customs and excise authorities any cash or securities the Participant imports or exports without the use of a financial institution when the value of the cash or securities exceeds €7,600 outside of the European Union.

Germany

Exchange Control Information. Cross-border payments in excess of €12,500 must be reported monthly to the German Federal Bank. If the Participant uses a German bank to effect a cross-border payment in excess of €12,500 in connection with the sale of shares acquired under the Plan, the bank will make the report for the Participant. In addition, the Participant must report any receivables or payables or debts in foreign currency exceeding an amount of €5,000,000 on a monthly basis. Finally, the Participant must report, on an annual basis, shares that exceed 10% of the total voting capital of the Company.

Hong Kong

Delivery of Shares. This provision supplements Section 5 of the Award Agreement:
Shares received under the Plan are accepted as a personal investment. In the event the Restricted Stock Units vest and shares of stock are paid to Participant within six months of the Grant Date, Participant agrees that he or she will not dispose of the shares acquired prior to the six-month anniversary of the Grant Date.
Securities Law Information. Securities Warning: This offer of Restricted Stock Units and the shares to be issued pursuant to the Award is not a public offer of securities and is available only for Plan Participants. The Award Agreement, including this Appendix, the Plan and other incidental Award documentation have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong, nor has the Award documentation been reviewed by any regulatory authority in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible Plan Participant and the Company and may not be distributed to any other person. If you are in any doubt about any of the contents of the Award Agreement, including this Appendix, or the Plan, you should obtain independent professional advice.
Nature of Scheme. The Company specifically intends that the Plan will not be an occupational retirement scheme for purposes of the Occupational Retirement Schemes Ordinance.

Italy

Data Privacy Consent.

The Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of the Participant's personal data as described in this Agreement by and among, as applicable, the Company and its Subsidiaries for the exclusive purpose of implementing, administering and managing the Participant's participation in the Plan. The Participant understands that the Company and any Subsidiary may hold certain personal information about the Participant, including, but not limited to, the Participant's name, address and telephone number, date of birth, social security number or other identification number, salary, nationality, job title, and shares or directorships held in the Company or any Subsidiary, details of all RSUs or any other entitlement to shares awarded, canceled, exercised, vested, unvested or outstanding in the Participant's favor, for the purpose of implementing, administering and managing the Plan (the "Data"). The Participant also understands that providing the Company with the Data is necessary for the performance of the Plan and that the Participant's refusal to provide such Data would make it impossible for the Company to perform its contractual obligations and may affect the Participant's ability to participate in the Plan. The Controller of personal data processing is AtriCure, Inc., 7555 Innovation Way, Mason, Ohio 45040, United States of America, and, pursuant to Legislative Decree no. 196/2003, its representative in Italy is _____ with registered offices

at_____, Italy. The Participant understands that the Data will not be publicized, but it may be transferred to banks, other financial institutions or brokers involved in the management and administration of the Plan. The Participant understands that the Data may also be transferred to the independent registered public accounting firm engaged by the Company. The Participant further understands that the Company and/or any Subsidiary will transfer the Data among themselves as necessary for the purpose of implementing, administering or managing the Participant's participation in the Plan, and that the Company or Subsidiary may each further transfer the Data to third parties assisting the Company in the implementation, administration and management of the Plan, including any requisite transfer of the Data to a broker or other third party with whom the Participant may elect to deposit any Shares acquired at vesting of the RSUs. Such recipients may receive, possess, use, retain and transfer the Data in electronic or other form, for the purposes of implementing, administering and managing the Participant's participation in the Plan. The Participant understands that these recipients may be located outside the European Economic Area, such as in the United States or elsewhere. Should the Company exercise its discretion in suspending all necessary legal obligations connected with the management and administration of the Plan, it will delete the Data as soon as it has completed all the necessary legal obligations connected with the management and administration of the Plan. The Participant understands that the Data processing related to the purposes specified above shall take place under automated or non-automated conditions, anonymously where possible, that comply with the purposes for which the Data is collected and with confidentiality and security provisions, as set forth by applicable laws and regulations with specific reference to Legislative Decree no. 196/2003. The processing activity, including communication, the transfer of the Data abroad, including outside of the European Economic Area, as herein specified and pursuant to applicable laws and regulations, does not require the Participant's consent thereto, as the processing is necessary to performance of contractual obligations related to implementation, administration and management of the Plan. The Participant understands that, pursuant to Section 7 of the Legislative Decree no. 196/2003, the Participant has the right to, for example but not by way of limitation, access, delete, update, correct or terminate, for legitimate reason, the Data processing. Furthermore, the Participant is aware that the Data will not be used for direct-marketing purposes. In addition, Data provided can be reviewed and questions or complaints can be addressed by contacting the Participant's local human resources representative with the Company.

Plan Document Acknowledgment. By accepting the RSUs, the Participant acknowledges that (1) the Participant has received a copy of the Plan, the Agreement and this Appendix; (2) the Participant has reviewed those documents in their entirety and fully understands the contents thereof; and (3) the Participant accepts all provisions of the Plan, the Agreement and this Appendix. The Participant further acknowledges that the Participant has read and specifically and expressly approves, without limitation, the following sections of the Agreement: No Right to Employment; Taxes and Withholding; Data Privacy; as replaced by the above consent; Governing Law.

The Netherlands

Securities Law Information. In the event the Participant acquires shares from the Company pursuant to the vesting or payment of the RSUs, it is prohibited for the Participant to subsequently offer such shares to the public in the Netherlands unless a prospectus approved by the Dutch Authority for the Financial Markets *(Autoritiet Financiele Markten)*, in accordance with the Prospectus Directive (2003/71/EC), as amended and implemented in the Netherlands, is made generally available or unless an exemption to the aforementioned prospectus requirement applies under Dutch law.

The Participant must comply with all applicable local securities laws when offering acquired shares to the public. Before any offer (or invitation to offer) of the shares is made the Participant

must obtain expert advice from a legal advisor in order to ensure compliance with local securities laws. Breach of securities laws may lead to considerable administrative penalties and/or imprisonment.

New Zealand

Securities Law Notice

This is an offer of Restricted Stock Units in AtriCure, Inc. AtriCure shares give you a stake in the ownership of AtriCure. You may receive a return if dividends or dividend equivalents are paid. If AtriCure runs into financial difficulties and is wound up, shareholders will only be paid after all creditors have been paid. You may lose some or all of your investment.

New Zealand law normally requires people who offer financial products to give information to investors before they invest. This information is designed to help investors to make an informed decision. The usual rules do not apply to this offer because it is made under an employee share purchase scheme. As a result, you may not be given all the information usually required. You will also have fewer other legal protections for this investment. Ask questions, read all documents carefully, and seek independent financial advice before committing yourself.

RSUs may not be transferred other than by will or by the laws of descent or distribution, subject to the terms of the RSU Agreement. If you receive shares upon vesting of RSUs, you may sell such shares, subject to any applicable insider trading laws or other regulations and any other trading restrictions imposed by AtriCure. AtriCure shares are traded on NASDAQ. This means you may be able to sell them on the NASDAQ if there are interested buyers. You may get less than you invested. The price will depend on the demand for the AtriCure shares.

Singapore

Securities Law Notice

This grant of the RSU and the Common Stock to be issued upon vesting of the RSU shall be made available only to an employee of the Company or its Subsidiary, in reliance of the prospectus exemption set out in Section 173(1)(f) of the Securities and Futures Act (Chapter 289) of Singapore. In addition, you agree, by your acceptance of this grant, not to sell any Common Stock within six months of the date of grant. Please note that neither this Agreement nor any other document or material in connection with this offer of the RSU and the Common Stock thereunder has been or will be lodged, registered or reviewed by any regulatory authority in Singapore.

Director Reporting

If you are a director or shadow director of the Company or an affiliate, you may be subject to special reporting requirements with regard to the acquisition of shares or rights over shares. Please contact your personal legal advisor for further details if you are a director or shadow director.

Exit Tax / Deemed Exercise Rule

If you have received RSUs in relation to your employment in Singapore, please note that if, prior to the vesting of your RSUs, you are 1) a permanent resident of Singapore and leave Singapore permanently or are transferred out of Singapore; or 2) neither a Singapore citizen nor permanent resident and either cease employment in Singapore or leave Singapore for any period

exceeding 3 months, you will likely be taxed on your unvested RSUs on a "deemed exercise" basis, even though your RSUs have not yet vested. You should discuss your tax treatment with your personal tax advisor.

Spain

Foreign Share Ownership Reporting

If you are a Spanish resident, your acquisition, purchase, ownership, and/or sale of foreign-listed stock may be subject to ongoing reporting obligations with the Dirección General de Politica Comercial e Inversiones Exteriores ("DGPCIE") of the Ministerio de Economia, the Bank of Spain, and/or the tax authorities. These requirements change periodically, so you should consult your personal advisor to determine the specific reporting obligations. Currently, you must declare the acquisition of Shares to DGPCIE for statistical purposes. You must also declare the ownership of any Shares with the DGPCIE each January while the shares are owned. The relevant forms are Form D6 and, depending on the amount of assets, Form D8. In addition, if you perform transactions with non-Spanish residents or hold a balance of assets and liabilities with foreign parties higher than EUR 1,000,000, you may be required to report such transactions and accounts to the Bank of Spain. The frequency (monthly, quarterly or annually) of the notification will vary depending on the total value of the transactions or the balance of assets and liabilities. If you hold assets or rights outside of Spain (including Shares acquired under the Plan), you may also have to file Form 720 with the tax authorities, generally if the value of your foreign investments exceeds €50,000. Please note that reporting requirements are based on what you have previously disclosed and the increase in value and the total value of certain groups of foreign assets.

United Kingdom

Terms and Conditions
Withholding taxes. This provision supplements the Award.

The Participant agrees that if the Participant does not pay or the Employer or the Company does not withhold from the Participant the full amount of income tax that the participant owes due to the vesting of the Restricted Stock Units, or the release or assignment of the Restricted Stock Units for consideration, or the receipt of any other benefit in connection with the Restricted Stock Units (the "Taxable Event") within 90 days of the Taxable Event, or such other period specified in Section 222(1) (c) of the U.K. Income Tax (Earnings and Pensions) Act 2003, then the amount that should have been withheld shall constitute a loan owed by the Participant to the Employer, effective 90 days after the Taxable Event. The Participant agrees that the loan will bear interest at the then current rate of Her Majesty's Revenue and Customs ("HMRC") and will be immediately due and repayable by the Participant, and the Company and/or Employer may recover it at any time thereafter by withholding the funds from salary, bonus or any other funds due to the Participant by the Employer, by withholding in shares issued upon vesting and settlement of the RSU's or from the cash proceeds from the sale of shares or by demanding cash or a cheque from the Participant. The Participant also authorizes the Company to delay the issuance of any shares to the Participant unless and until the loan is repaid in full.

Notwithstanding the foregoing, if the Participant is an officer or executive director (as within the meaning of Section 13(k) of the U.S. Securities and Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that the Participant is an officer or executive director and income tax is not collected from or paid by the Participant within 90 days of the Taxable Event, the amount of any uncollected income tax may constitute a benefit to the Participant on which additional income tax and national insurance contributions

may be payable. The Participant acknowledges that the Company or the Employer may recover any such additional income tax and national insurance contributions at any time thereafter by any of the means referred to in Section 11 of the Award. However, the Participant is also responsible for reporting and paying any income tax and national insurance contributions due on this additional benefit directly to HMRC under the self-assessment regime.

Restricted Stock Units payable in shares. Notwithstanding any discretion in the Plan or anything to the contrary in the Award, Restricted Stock Units granted to the Participant in the United Kingdom does not provide any right for the Participant to receive a cash payment; the Restricted Stock Units are payable in shares only.

Exhibit 19

ATRICURE, INC.

INSIDER TRADING POLICY
and
Guidelines with Respect to Certain Transactions in Securities

Amended and restated effective as of March 1, 2023

Executive Summary

Insider Trading –

(a) It is a violation of US law for directors, officers, employees, and other individuals who possess material nonpublic information regarding the Company to execute transactions in Company Securities.
- All individuals bear personal responsibility for determining if they are in possession of material, non-public information before seeking to engage in any Company Securities transactions.
- It is not a defense that the person did not "use" the information for the transaction.

(b) Both (1) disclosing material nonpublic information to others who then execute transactions on the basis of the information and (2) making recommendations or expressing opinions on transactions while in the possession of material nonpublic information are also illegal. Both the person sharing such information or recommendation and the person acting on it may be legally liable.

(c) Covered Persons (defined below) are required to pre-clear any transactions in Company Securities. "**Covered Persons**" include the following:
- all members of the Board of Directors
- all executive officers
- all employees who hold a title of "director," "vice president" and any other comparable title or title senior to those titles are defined herein
- any other person notified in writing from time to time by the Chief Financial Officer

(d) You are required to disclose any violations of this Policy to the Chief Financial Officer.

Blackout Periods –

(a) The Company utilizes automatic blackout periods coinciding with quarterly earnings, and may also announce a blackout period where there is increased risk of insider trading. During a blackout period, identified individuals are prohibited from executing transactions in Company securities unless they have entered into special agreements permitted by the SEC.

(b) Whether or not you are subject to blackout periods or are subject to one at any given time, you remain subject to the prohibitions on trading on the basis of material nonpublic information and any other applicable restrictions in this Policy.

Other Restrictions and Requirements – A wide variety of additional restrictions on securities transactions and reporting requirements are covered by the following Policy and guidelines.

Please review this entire document, as the executive summary above does not purport to cover all restricted behavior and contact the Chief Financial Officer with any questions.

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I. Introduction

The purchase or sale of securities while aware of material nonpublic information, or the disclosure of material nonpublic information to others who then trade in Company Securities (defined below), is prohibited by federal and state laws. Insider trading violations are pursued vigorously by the U.S. Securities and Exchange Commission ("**SEC**"), U.S. Attorneys and state enforcement authorities. Punishment for insider trading violations is severe, and could include significant fines and imprisonment. While the regulatory authorities concentrate their efforts on the individuals who trade, or who tip inside information to others who trade, the federal securities laws also impose potential liability on companies and other "controlling persons" if they fail to take reasonable steps to prevent insider trading by company personnel.

An employee's failure to comply with this Insider Trading Policy (the "**Policy**") may subject the employee to Company-imposed sanctions, including dismissal for cause, whether or not the employee's failure to comply results in a violation of law. If a member of the Board of Directors (a "**director**") fails to comply with this Policy, the Company reserves the right to remove that person from the Board of Directors, whether or not her/his failure to comply results in a violation of law. If a consultant engaged by the Company fails to comply with this policy, the Company reserves the right to discontinue the Company's engagement with the consultant, whether or not the consultant's failure to comply results in a violation of law. Needless to say, a violation of law, or even an SEC investigation that does not result in prosecution, can tarnish a person's reputation and irreparably damage a career.

This Policy provides guidelines with respect to transactions in the securities of AtriCure, Inc. (the "**Company**" or "**AtriCure**") and the handling of confidential information about AtriCure and the companies with which it does business. The Company's Board of Directors has adopted this Policy to promote compliance with federal, state and foreign securities laws that prohibit persons who are aware of material nonpublic information about a company from: (i) trading in securities of that company; or (ii) providing material nonpublic information to other persons who may trade on the basis of that information.

II. Persons Subject to the Policy

This Policy applies to all officers of the Company and its subsidiaries, all directors and all employees of the Company and its subsidiaries. The Company may also determine that other persons should be subject to this Policy, such as contractors or consultants who have access to material nonpublic information. This Policy also applies to family members, other members of a person's household and entities controlled by a person covered by this Policy, as described below.

III. Transactions Subject to the Policy

This Policy applies to transactions in the Company's securities (collectively referred to in this Policy as "**Company Securities**"), including the Company's common stock, options to purchase common stock, or any other type of securities that the Company may issue, including (but not limited to) preferred stock, convertible debentures and warrants, as well as derivative securities that are not issued by the Company, such as exchange-traded put or call options or swaps relating to the Company's Securities. Transactions in mutual funds that are invested in Company Securities are not transactions subject to this Policy.

IV. Individual Responsibility

Persons subject to this Policy have ethical and legal obligations to maintain the confidentiality of information about the Company and to not engage in transactions in Company Securities

while in possession of material nonpublic information. Persons subject to this policy must not engage in illegal trading and must avoid the appearance of improper trading. Each individual is responsible for making sure that he or she complies with this Policy, and that any family member, household member or entity whose transactions are subject to this Policy, as discussed below, also comply with this Policy. In all cases, the responsibility for determining whether an individual is in possession of material nonpublic information rests with that individual, and any action on the part of the Company, the Chief Financial Officer or any other employee or director pursuant to this Policy (or otherwise) does not in any way constitute legal advice or insulate an individual from liability under applicable securities laws. You could be subject to severe legal penalties and disciplinary action by the Company for any conduct prohibited by this Policy or applicable securities laws.

V. Administration of the Policy

The Chief Financial Officer shall administer this Policy, and in the Chief Financial Officer's absence, the Chief Legal Officer or another employee designated by the Chief Financial Officer shall be responsible for administration of this Policy. All determinations and interpretations by the Chief Financial Officer or her/his designee shall be final and not subject to further review.

VI. Statement of Policy

It is the policy of the Company that no director, officer or other employee of the Company, or any other person designated by the Chief Financial Officer as subject to this Policy, who is aware of material nonpublic information relating to the Company may, directly, or indirectly through family members or other persons or entities:

A. Engage in transactions in Company Securities, except as otherwise specified in this Policy under the headings "Transactions Under Company Stock Incentive Plans," "Gifts" and "Rule 10b5-1 Plans;"

B. Recommend the purchase or sale of any Company Securities;

C. Disclose material nonpublic information to persons within the Company whose jobs do not require them to have that information, or outside of the Company to other persons, including, but not limited to, family, friends, business associates, investors and expert consulting firms, unless any such disclosure is made in accordance with the Company's policies regarding the protection or authorized external disclosure of information regarding the Company; or

D. Assist anyone engaged in the above activities.

In addition, it is the policy of the Company that no director, officer or other employee of the Company, or any other person designated by the Chief Financial Officer as subject to this Policy, who, in the course of working for the Company, learns of material nonpublic information about a company with which the Company does business, including a customer or supplier of the Company, may trade in that other company's securities until the information becomes public or is no longer material.

There are no exceptions to this Policy, except as specifically noted herein. Transactions that may be justifiable for independent reasons (such as the need to raise money for an emergency expenditure), or small transactions, are **not** excepted from this Policy. The securities laws do not recognize any mitigating circumstances. Further, even the appearance of an improper transaction must be avoided to preserve the Company's reputation for adhering to the highest standards of conduct.

VII. Definition of Material Nonpublic Information

A. Material Information. Information is considered "material" if a reasonable investor would consider that information important in making a decision to buy, hold or sell securities. Any information that could be expected to affect a company's stock price, whether it is positive or negative, should be considered material. There is no bright-line standard for assessing materiality; rather, materiality is based on an assessment of all of the facts and circumstances, and is often evaluated by enforcement authorities with the benefit of hindsight. While it is not possible to define all categories of material information, some examples of information that ordinarily would be regarded as material are:

1. Projections of future earnings or losses, or other earnings guidance;
2. Changes to previously announced earnings guidance, or the decision to suspend earnings guidance;
3. A pending or proposed merger, acquisition or tender offer;
4. A pending or proposed acquisition or disposition of a significant asset;
5. A pending or proposed joint venture;
6. A Company restructuring;
7. Results of clinical trials relating to the Company's products or significant actions by regulators (*e.g.,* the FDA) with respect to the Company;
8. New major contracts, orders, suppliers, customers, or finance sources, or the loss thereof;
9. Major discoveries or significant changes or developments in products or product lines, research, pricing or technologies;
10. Significant related party transactions;
11. A change in dividend policy, the declaration of a stock split, or an offering of additional securities;
12. Bank borrowings or other financing transactions out of the ordinary course;
13. The establishment of a repurchase program for Company Securities;
14. Significant changes or developments in supplies or inventory, including significant product defects, recalls, or product returns;
15. Significant changes in executive officers;
16. A change in auditors or notification that the auditor's reports may no longer be relied upon;
17. Development of a significant new product, process, or service;

18. Pending or threatened significant litigation or investigations, or the resolution of such litigation or investigations;

19. Impending bankruptcy or the existence of severe liquidity problems;

20. A significant cybersecurity incident, such as a data breach or any other significant disruption in the Company's operations, or loss, potential loss, breach or unauthorized access of Company property or assets, whether at its facilities or through its information technology infrastructure; or

21. The imposition of an event-specific restriction on trading in Company Securities or the securities of another company or the extension or termination of such restriction.

B. When Information is Considered Public. Information that has not been disclosed to the public is generally considered to be nonpublic information. In order to establish that the information has been disclosed to the public, it may be necessary to demonstrate that the information has been widely disseminated. Information generally would be considered widely disseminated if it has been disclosed through the Dow Jones "broad tape," newswire services, a broadcast on widely available radio or television programs, conference calls and webcasts conducted in a manner compliant with Regulation FD preceded by a related Form 8-K filing, publication in a widely available newspaper, magazine or news website, or public disclosure documents filed with the SEC that are available on the SEC's website. By contrast, information would likely not be considered widely disseminated if it is available only to the Company's employees, or if it is only available to those who may owe the Company a duty of confidentiality such as a select group of analysts, brokers and institutional investors.

Once information is widely disseminated, it is still necessary to provide the investing public with sufficient time to absorb the information. As a general rule, information should not be considered fully absorbed by the marketplace until after the second trading day (usually 48 hours) after the information is released. If, for example, the Company were to make an announcement on a Monday after the close of trading, you should not trade in Company Securities until Thursday morning. Depending on the particular circumstances, the Company may determine that a longer period should apply to the release of specific material nonpublic information.

VIII. Transactions by Family Members and Others

This Policy applies to your family members who reside with you (including a spouse, a child, a child away at college, stepchildren, grandchildren, parents, stepparents, grandparents, siblings and in-laws), anyone else who lives in your household, and any family members who do not live in your household but whose transactions in Company Securities are directed by you or are subject to your influence or control, such as parents or children who consult with you before they trade in Company Securities (collectively referred to as "**Family Members**"). You are responsible for the transactions of these other persons and therefore should make them aware of the need to confer with you before they trade in Company Securities, and you should treat all such transactions for the purposes of this Policy and applicable securities laws as if the transactions were for your own account. This Policy does not, however, apply to personal securities transactions of Family Members where the purchase or sale decision is made by a third party not controlled by, influenced by or related to you or your Family Members.

IX. Transactions by Entities that You Influence or Control

This Policy applies to any entities that you influence or control, including any corporations, business entities, partnerships or trusts (collectively referred to as "**Controlled Entities**"), and transactions by these Controlled Entities should be treated for the purposes of this Policy and applicable securities laws as if they were for your own account.

X. Transactions Under Company Stock Incentive Plans

This Policy does not apply in the case of the following transactions, except as specifically noted:

A. Stock Option Exercises. This Policy does not apply to the exercise of an employee stock option acquired pursuant to the Company's stock incentive plans, or to the exercise of a tax withholding right pursuant to which a person has elected to have the Company withhold shares subject to an option to satisfy tax withholding requirements, in each case where no open market sale of Company Securities occurs (i.e., cash exercise and hold). This Policy **does** apply, however, to any sale of stock as part of a broker-assisted cashless exercise of an option, or any other market sale for the purpose of generating the cash needed to pay the exercise price of an option.

B. Other Stock Awards. This Policy does not apply to the vesting of restricted stock, including, without limitation, performance share awards, or the exercise of a tax withholding right pursuant to which you elect to have the Company withhold shares of stock to satisfy tax withholding requirements upon the vesting of any restricted stock. The Policy **does** apply, however, to any market sale of restricted stock.

C. Employee Stock Purchase Plan. This Policy does not apply to purchases of Company Securities in the employee stock purchase plan resulting from your periodic contribution of money to the plan pursuant to the election you made at the time of your enrollment in the plan. This Policy **does** apply, however, to your election to participate in the plan for any enrollment period, changes to an election, and to your sales of Company Securities purchased pursuant to the plan.

XI. Gifts

Bona fide gifts (i.e., gifts made in good faith and without the intention of circumventing federal securities laws) are permitted during an open "Window Period" (described in Section XIII.C. below). A Covered Person making a gift during an open "Window Period" is subject to the requirements described below under the heading "Additional Procedures." Gifts are permitted to be made outside of an open "Window Period" only if the person making the gift first obtains and provides to the Chief Financial Officer written confirmation that the recipient of the gift will not sell the securities gifted prior to the next open "Window Period."

XII. Special and Prohibited Transactions

The Company has determined that there is a heightened legal risk and/or the appearance of improper or inappropriate conduct if the persons subject to this Policy engage in certain types of transactions. It therefore is required that any persons covered by this Policy may not engage in any of the following transactions, or should otherwise consider the Company's preferences as described below:

A. Short-Term Trading. Short-term trading of Company Securities may be distracting to the person and may unduly focus the person on the Company's

short-term stock market performance instead of the Company's long-term business objectives. For these reasons, any director or officer of the Company subject to Section 16 of the Securities Exchange Act of 1934 (the "**Exchange Act**") who purchases Company Securities in the open market may not sell any Company Securities of the same class during the six months following the purchase (or vice versa). Compliance with this provision of the Policy is the individual responsibility of each director or officer subject to Section 16 of the Exchange Act. (Please refer to additional discussion in the section below captioned "Section 16: Insider Reporting Requirements, Short-Swing Profits and Short Sales".)

B. Short Sales. Short sales of Company Securities (i.e., the sale of a security that the seller does not own) may evidence an expectation on the part of the seller that the securities will decline in value, and therefore have the potential to signal to the market that the seller lacks confidence in the Company's prospects. In addition, short sales may reduce a seller's incentive to seek to improve the Company's performance. For these reasons, short sales of Company Securities are prohibited. In addition, Section 16(c) of the Exchange Act prohibits officers and directors from engaging in short sales. Short sales arising from certain types of hedging transactions are governed by the paragraph below captioned "Hedging Transactions." (Please refer to additional discussion in the section below captioned "Section 16: Insider Reporting Requirements, Short-Swing Profits and Short Sales".)

C. Publicly Traded Options. Given the relatively short term of publicly traded options, transactions in options may create the appearance that a director, officer or employee is trading based on material nonpublic information and focus a director's, officer's or other employee's attention on short-term performance at the expense of the Company's long-term objectives. Accordingly, transactions in put options, call options or other derivative securities, on an exchange or in any other organized market, are prohibited by this Policy.

D. Hedging Transactions. Hedging or monetization transactions can be accomplished through a number of possible mechanisms, including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds. Such transactions may permit a director, officer or employee to continue to own Company Securities obtained through employee benefit plans or otherwise, but without the full risks and rewards of ownership. When that occurs, the director, officer or employee may no longer have the same objectives as the Company's other shareholders. Therefore, directors, officers and employees are prohibited from engaging in any such transactions.

E. Margin Accounts and Pledged Securities. Securities held in a margin account as collateral for a margin loan may be sold by the broker without the customer's consent if the customer fails to meet a margin call. Similarly, securities pledged (or hypothecated) as collateral for a loan may be sold in foreclosure if the borrower defaults on the loan. Because a margin sale or foreclosure sale may occur at a time when the pledgor is aware of material nonpublic information or otherwise is not permitted to trade in Company Securities, directors, officers and other employees are prohibited from holding Company Securities in a margin account or otherwise pledging Company Securities as collateral for a loan.

F. Standing and Limit Orders. Standing and limit orders (except standing and limit orders under approved Rule 10b5-1 Plans, as described below) create

heightened risks for insider trading violations similar to the use of margin accounts. There is no control over the timing of purchases or sales that result from standing instructions to a broker, and as a result the broker could execute a transaction when a director, officer or other employee is in possession of material nonpublic information. The Company therefore discourages placing standing or limit orders on Company Securities unless such orders are (i) approved by the Chief Financial Officer and (ii) limited to executing transactions during an open trading window under this Policy. If a person subject to this Policy determines that they must use a standing order or limit order, the order should be limited to short duration and should otherwise comply with the restrictions and procedures outlined below under the heading "Additional Procedures."

XIII. Additional Procedures

The Company has established additional procedures in order to assist the Company in the administration of this Policy, to facilitate compliance with laws prohibiting insider trading while in possession of material nonpublic information, and to avoid the appearance of any impropriety.

A. Pre-Clearance Procedures. Covered Persons, as well as the Family Members and Controlled Entities of Covered Persons, may not engage in any transaction in Company Securities without first obtaining pre-clearance of the transaction from the Chief Financial Officer. A request for pre-clearance must be in writing (including e-mail) and must be submitted to and approved by the Chief Financial Officer in advance of the proposed transaction.

When a Covered Person requests pre-clearance to trade in Company Securities, she/he should carefully consider whether she/he may be aware of any material nonpublic information about the Company, and should describe fully those circumstances to the Chief Financial Officer. The Covered Person, if such Covered Person is subject to the requirements of Section 16 of the Exchange Act by virtue of the fact that such Covered Person is a director or executive officer, should also indicate whether he or she has effected any non-exempt "opposite-way" transactions within the past six months, and should be prepared to report the proposed transaction on an appropriate Form 4 or Form 5. The Covered Person, if such Covered Person is subject to the requirements of Rule 144 of the Securities Act of 1933, as amended (the "**Securities Act**") by virtue of the fact that such Covered Person is a director or executive officer, should also be prepared to comply with SEC Rule 144 and file Form 144, if necessary, at the time of any sale. Rule 144 does not apply to purchases.

The Chief Financial Officer is under no obligation to approve a transaction submitted for pre-clearance, and may determine not to permit the transaction. If a person seeks pre-clearance and permission to engage in the transaction is denied, then he or she should refrain from initiating any transaction in Company Securities, and should not inform any other person of the restriction.

B. Duration of Clearance: Pre-cleared trades must be effected within **five trading days** of receipt of pre-clearance unless an exception is granted. Transactions not effected within the time limit are subject to repeated pre-clearance.

The Chief Financial Officer from time to time may establish coordinated procedures with the Company's Payroll function and/or through the Company's

stock plan administration platform and brokerage firm. Such procedures shall supplement this Policy.

C. Quarterly Trading Restrictions. Covered Persons, and anyone designated by the Chief Financial Officer as subject to this restriction, as well as their Family Members or Controlled Entities, may not conduct any transactions involving the Company's Securities (other than as specified by this Policy), during a "Blackout Period" beginning fourteen (14) calendar days prior to the end of each fiscal quarter and ending on the second trading day following the date of the public release of the Company's financial results for that quarter. In other words, Covered Persons may only conduct transactions in Company Securities during the open "Window Period" beginning on the second trading day following the public release of the Company's quarterly financial results and ending two (2) weeks prior to the close of the next fiscal quarter.

D. Examples of Permissible Timing of Trades Following Public Announcements:

1. Financial results for the quarter ending September 30 are released to the public through a press release issued at 7 a.m. on a Tuesday in November. Trading in Company Securities is not permitted from September 16 until Thursday of that week in November, at least 48 hours after Tuesday's announcement.

2. 12:00 noon press release—trading permitted at noon the second trading day after the release.

3. Friday 5:00 p.m. press release—trading not permitted until market open on the following Wednesday (even though more than 48 hours).

E. Event-Specific Trading Restriction Periods. From time to time, an event may occur that is material to the Company and is known by only a few directors, officers and/or employees. So long as the event remains material and nonpublic, the persons designated by the Chief Financial Officer may not trade Company Securities. In addition, the Company's financial results may be sufficiently material in a particular fiscal quarter that, in the judgment of the Chief Financial Officer, designated persons should refrain from trading in Company Securities even sooner than the typical Blackout Period described above. In that situation, the Chief Financial Officer may notify these persons that they should not trade in the Company's Securities, without disclosing the reason for the restriction. The existence of an event-specific trading restriction period or extension of a Blackout Period will not be announced to the Company as a whole, and should not be communicated to any other person. Even if the Chief Financial Officer has not designated you as a person who should not trade due to an event-specific restriction, you should not trade while aware of material nonpublic information. Exceptions will not be granted during an event-specific trading restriction period.

F. Exceptions. The quarterly trading restrictions and event-specific trading restrictions do not apply to those transactions to which this Policy does not apply, as described above under the heading "Transactions Under Company Stock Incentive Plans." Further, the requirement for pre-clearance, the quarterly trading restrictions and event-specific trading restrictions do not apply to transactions conducted pursuant to approved Rule 10b5-1 plans, described under the heading "Rule 10b5-1 Plans."

XIV. Rule 10b5-1 Plans

Rule 10b5-1 under the Exchange Act provides a defense from insider trading liability. In order to be eligible to rely on this defense, a person subject to this Policy must enter into a Rule 10b5-1 trading plan for transactions in Company Securities that meets certain conditions specified in the Rule (a "**Rule 10b5-1 Plan**"). If the plan meets the requirements of Rule 10b5-1, Company Securities may be purchased or sold without regard to certain insider trading restrictions. To comply with the Policy, a Rule 10b5-1 Plan must be approved by the Chief Financial Officer and meet the requirements of Rule 10b5-1. Persons entering into a Rule 10b5-1 Plan must act in good faith with respect to the plan. A Rule 10b5-1 Plan must be entered into at a time when the person entering into the plan is not aware of material nonpublic information. Additionally, Rule 10b5-1 Plans may not be entered into during a Blackout Period. Once the plan is adopted, the person must not exercise any influence over the amount of securities to be traded, the price at which they are to be traded or the date of the trade.

Any Rule 10b5-1 Plan must be submitted for approval prior to the entry into the Rule 10b5-1 Plan. No further pre-approval of transactions conducted pursuant to the Rule 10b5-1 Plan will be required.

A. Written Trading Plan Requirements. The written Rule 10b5-1 Plan must be a binding contract, instruction, or other arrangement under specified terms and conditions for the purchase or sale of securities. SEC rules require Covered Persons to include representations in their written Rule 10b5-1 Plans certifying, at the time of the adoption of a new or modified plan, that: (1) they are not aware of material nonpublic information about the Company or its securities; and (2) they are adopting the plan in good faith and not as part of a plan or scheme to evade the prohibitions of Rule 10b-5. The written Rule 10b5-1 Plan also must:

   (i) expressly specify the amount, price, and date of trades;

   (ii) include a written formula or algorithm, or computer program, for determining amounts, prices, and dates; or

   (iii) not permit the Covered Person to exercise any subsequent influence over the amount of securities to be traded, the price at which they are to be traded or the date of the trade; provided, in addition, that any other person who does exercise such influence is not aware (or is deemed to be unaware of the material nonpublic information when doing so).

B. Cooling-Off After Adoption. All Rule 10b5-1 Plans of Covered Persons must have "cooling-off" periods between the date the Rule 10b5-1 Plan is adopted and when trading under the plan commences. For Covered Persons, the cooling-off period is the later of (i) 90 days after the adoption of the Rule 10b5-1 Plan or (ii) two business days following the filing of the Form 10-Q or Form 10-K for the fiscal quarter in which the plan was adopted. In any event, the required cooling-off period for Covered Persons must not exceed 120 days following the Rule 10b5-1 Plan adoption. For employees who are not Covered Persons, the applicable cooling-off period is 30 days after the adoption of the Rule 10b5-1 Plan.

C. Multiple 10b5-1 Plans. No Covered Person may maintain or use multiple overlapping Rule 10b5-1 Plans for open market transactions involving Company

Securities except as described below. This prohibition does not apply where a person transacts directly with the Company such as in a dividend reinvestment plan or employee stock ownership plan, which are not executed on the open market. Also, the prohibition does not apply to plans authorizing an agent to sell only enough securities as are necessary to satisfy tax withholding obligations arising exclusively from the vesting of a compensatory award, such as on the vesting and settlement of restricted stock units ("sell-to-cover" Rule 10b5-1 Plans), provided that the award holder is not permitted to exercise control over the timing of such sales. Also, a Covered Person may maintain two separate Rule 10b5-1 Plans for open market purchases or sales of Company Securities if trading under the later-commencing plan is not authorized to begin until after all trades under the earlier-commencing plan are completed or expire without execution. If the first plan is terminated early, the first trade under the later-commencing plan, however, must not be scheduled to occur until after the effective cooling-off period following the termination of the earlier plan which, as explained above, is the later of (i) 90 days after termination of the Rule 10b5-1 Plan or (ii) two business days following the filing of the Form 10-Q or Form 10-K for the fiscal quarter in which the plan was terminated. In any event, as explained above, the required cooling-off period for Covered Persons must not exceed 120 days following the Rule 10b5-1 Plan termination.

D. Single Trade Plans. A Covered Person may enter into only one single-trade Rule 10b5-1 Plan during any consecutive twelve-month period. A Rule 10b5-1 Plan will not be treated as a single-trade plan if it gives the Covered Person's agent discretion over whether to execute the plan as a single transaction, or provides that the agent's future acts will depend on events or data not known at the time the plan is entered into and it is reasonably foreseeable at the time the plan is entered into that the plan might result in multiple trades. For the avoidance of doubt, sell-to-cover Rule 10b5-1 Plans are exempt from the limitation on single-trade plans.

E. Plan Amendment and Revocation. A person acting in good faith may amend a Rule 10b5-1 Plan so long as such amendments are made outside of a quarterly trading Blackout Period and at a time when the Rule 10b5-1 Plan participant does not possess material, non-public information.

Revocation of Rule 10b5-1 Plans should occur only in unusual circumstances. Effectiveness of any revocation or amendment of a Rule 10b5-1 Plan will be subject to the prior review and approval of the Chief Financial Officer. Revocation is effected upon written notice to the broker.

Under certain circumstances, a Rule 10b5-1 Plan must be revoked. This may include circumstances such as the announcement of a merger or the occurrence of an event that would cause the transaction either to violate the law or to have an adverse effect on the Company. The Chief Financial Officer or administrator of the Company's stock plans is authorized to notify the broker in such circumstances, thereby insulating the person in the event of revocation.

The Company reserves the right from time to time to suspend, discontinue or otherwise prohibit any transaction in the Company's securities, even pursuant to a previously approved Rule 10b5-1 Plan, if the Chief Financial Officer or the Board of Directors, in its discretion, determines that such suspension, discontinuation or other prohibition is in the best interests of the Company. Any Rule 10b5-1 Plan submitted for approval hereunder should explicitly

acknowledge the Company's right to suspend, discontinue or prohibit transactions in the Company's securities. Failure to discontinue purchases and sales as directed shall constitute a violation of the terms of this Policy and result in a loss of the exemption set forth herein.

For Covered Persons, the cooling-off period after a plan revocation or amendment is the later of (i) 90 days after the revocation or amendment of the Rule 10b5-1 Plan or (ii) two business days following the filing of the Form 10-Q or Form 10-K for the fiscal quarter in which the plan was revoked or amended. In any event, the required cooling-off period for Covered Persons must not exceed 120 days following the Rule 10b5-1 Plan revocation or amendment. For employees who are not Covered Persons, the applicable cooling-off period is 30 days after the revocation or amendment of the Rule 10b5-1 Plan.

During a "Window Period", trades differing from Rule 10b5-1 Plan instructions that are already in place are allowed as long as the Rule 10b5-1 Plan continues to be followed.

F. Section 16 Liability and Reporting

Rule 10b5-1 Plans do not exempt individuals from complying with Section 16 short- swing profit rules or liability.

Although transactions effected under a Rule 10b5-1 Plan will not require further pre-clearance at the time of the trade, any transaction (including the quantity and price) made pursuant to a Rule 10b5-1 Plan of a Section 16 reporting person must be reported to the Company promptly on the day of each trade to permit the Company's filing coordinator to assist in the preparation and filing of a required Form 4. Such reporting must be in writing (including, without limitation, by e-mail) and should include the identity of the reporting person, the type of transaction, the date of the transaction, the number of shares involved and the purchase or sale price. However, the ultimate responsibility, and liability, for timely filing remains with the Section 16 reporting person.

G. Public Announcements. The Company may make a public announcement that Rule 10b5-1 Plans are being implemented in accordance with Rule 10b5-1. It will consider in each case whether a public announcement of a particular Rule 10b5-1 Plan should be made. It may also make public announcements or respond to inquiries from the media as transactions are made under a Rule 10b5-1 Plan.

H. Limitation on Liability. None of the Company, the Chief Financial Officer, the Company's other employees or any other person will have any liability for any delay in reviewing, or refusal of, a Rule 10b5-1 Plan submitted pursuant to this Policy or a request for pre-clearance submitted pursuant to this Policy. Notwithstanding any review of a 10b5-1 Plan pursuant to this Policy or pre-clearance of a transaction pursuant to this Policy, none of the Company, the Chief Financial Officer, the Company's other employees or any other person assumes any liability for the legality or consequences of such Rule 10b5-1 Plan or transaction to the person engaging in or adopting such Rule 10b5-1 Plan or transaction.

XV. Post-Termination Transactions

This Policy continues to apply to transactions in Company Securities even after termination of service to the Company. Except as expressly provided in this Policy, if your relationship with the Company terminates during a Blackout Period, you shall nevertheless be required to refrain from trading until the Blackout Period terminates in accordance with the terms of this policy, and at all times while in possession of material nonpublic information.

XVI. Section 16: Insider Reporting Requirements, Short-Swing Profits and Short Sales

A. Reporting Obligations Under Section 16(a): SEC Forms 3, 4 and 5. Section 16(a) of the Exchange Act generally requires all officers, directors and 10% stockholders ("***insiders***"), within 10 days after the insider becomes an officer, director or 10% stockholder, to file with the SEC an "Initial Statement of Beneficial Ownership of Securities" on SEC Form 3 listing the amount of the Company's stock (including grants of restricted stock or performance shares), options and warrants which the insider beneficially owns. Following the initial filing on SEC Form 3, changes in beneficial ownership of the Company's stock, options and warrants must be reported on SEC Form 4, generally within two business days after the date on which such change occurs, or in certain cases on Form 5, within 45 days after fiscal year end. A Form 4 must be filed even if, as a result of balancing transactions, there has been no net change in holdings. In certain situations, purchases or sales of Company stock made within six months prior to the filing of a Form 3 must be reported on Form 4. Similarly, certain purchases or sales of Company stock made within six months after an officer or director ceases to be an insider must be reported on Form 4.

B. Recovery of Profits Under Section 16(b). For the purpose of preventing the unfair use of information which may have been obtained by an insider, any profits realized by any officer, director or 10% stockholder from any "purchase" and "sale" of Company stock during a six-month period, so called "short-swing profits," may be recovered by the Company. When such a purchase and sale occurs, good faith is no defense. The insider is liable even if compelled to sell for personal reasons, and even if the sale takes place after full disclosure and without the use of any inside information.

The liability of an insider under Section 16(b) of the Exchange Act is only to the Company itself. The Company, however, cannot waive its right to short swing profits, and any Company stockholder can bring suit in the name of the Company. No suit may be brought more than two years after the date the profit was realized. However, if the insider fails to file a report of the transaction under Section 16(a), as required, the two-year limitation period does not begin until after the transactions giving rise to the profit have been disclosed.

C. Short Sales Prohibited Under Section 16(c). Section 16(c) of the Exchange Act prohibits insiders from making short sales of the Company Securities. Short sales include sales of stock which the insider does not own at the time of sale, or sales of stock against which the insider does not deliver the shares within 20 days after the sale. Under certain circumstances, the purchase or sale of put or call options, or the writing of such options, can result in a violation of Section 16(c). Insiders violating Section 16(c) face criminal liability.

The Chief Financial Officer should be consulted if you have any questions regarding reporting obligations, short-swing profits or short sales under Section 16.

XVII. Rule 144

Rule 144 provides a safe harbor exemption to the registration requirements of the Securities Act for certain resales of "restricted securities" and "control securities." "Restricted securities" are securities acquired from an issuer, or an affiliate of an issuer, in a transaction or chain of transactions not involving a public offering. "Control securities" are any securities owned by directors, executive officers or other "affiliates" of the issuer, including stock purchased in the open market and stock received upon exercise of stock options. Sales of Company restricted and control securities must comply with the requirements of Rule 144, which are summarized below:

A. Holding Period. Restricted securities must be held for at least six months before they may be sold in the market.

B. Current Public Information. The Company must have filed all SEC-required reports during the last 12 months or such shorter period that the Company was required to file such reports.

C. Volume Limitations. For affiliates, total sales of Company common stock for any three-month period may not exceed the greater of: (i) 1% of the total number of outstanding shares of Company common stock, as reflected in the most recent report or statement published by the Company, or (ii) the average weekly reported volume of such shares traded during the four calendar weeks preceding the filing of the requisite Form 144.

D. Method of Sale. For affiliates, the shares must be sold either in a "broker's transaction" or in a transaction directly with a "market maker." A "broker's transaction" is one in which the broker does no more than execute the sale order and receive the usual and customary commission. Neither the broker nor the selling person can solicit or arrange for the sale order. In addition, the selling person must not pay any fee or commission other than to the broker. A "market maker" includes a specialist permitted to act as a dealer, a dealer acting in the position of a block positioner, and a dealer who holds himself out as being willing to buy and sell Company common stock for his own account on a regular and continuous basis.

E. Notice of Proposed Sale. For affiliates, a notice of the sale (a Form 144) may be required to be filed with the SEC at the time of the sale. Such a notice is required if the sale involves more than 5,000 shares or the aggregate dollar amount is greater than $50,000 in any three-month period. Brokers generally have internal procedures for executing sales under Rule 144 and will assist you in completing the Form 144 and in complying with the other requirements of Rule 144.

If you are subject to Rule 144, you must instruct your broker who handles trades in Company Securities to follow the brokerage firm's Rule 144 compliance procedures in connection with all trades.

XVIII. Internet Message Boards, Chat Rooms, and Discussion Groups

If you communicate about AtriCure or its products through social media, be sure that you are always following all applicable policies, including those relating to confidential information and insider trading. Additionally, keep the following guidelines in mind:

- Because you can't control who views or shares what you post, treat everything on social media as public

- Always act in a professional manner that reflects well on you and AtriCure, and never give the impression that you speak on behalf of the Company

- Don't make unfounded or unsupported statements or misrepresent any facts

XIX. Company Assistance

Any person who has a question about this Policy or its application to any proposed transaction may obtain additional guidance from the Chief Financial Officer, who can be reached by telephone at (513) 755-5334 or by e-mail at awirick@atricure.com.

XX. Certification

All persons subject to this Policy must certify their understanding of, and intent to comply with, this Policy.

CERTIFICATION

I certify that:

1. I have read and understand the Company's Insider Trading Policy (the "Policy"). I understand that the Chief Financial Officer is available to answer any questions I have regarding the Policy.

2. Since March 1, 2023, date the Policy became effective, or such shorter period of time that I have been an employee, director, contractor or consultant of the Company, I have complied with the Policy.

3. I will continue to comply with the Policy for as long as I am subject to the Policy.

Print name:_____

Signature:_____

Date:_____

Exhibit 21

SUBSIDIARIES OF ATRICURE, INC.

AtriCure Europe, B.V., incorporated in the Netherlands

AtriCure, LLC, a Delaware limited liability company

SentreHEART LLC, a Delaware limited liability company

AtriCure Spain, S.L., incorporated in Spain

AtriCure Germany GmbH, incorporated in Germany

AtriCure UK Limited, incorporated in the United Kingdom

AtriCure Canada, Inc., incorporated in Canada

AtriCure Hong Kong Limited, incorporated in Hong Kong

AtriCure (Beijing) Medicine Information Consulting Service Co., Ltd., incorporated in Beijing

AtriCure Asia Pacific, Ltd., incorporated in Singapore

AtriCure Japan Co., Ltd., incorporated in Japan

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-262819 on Form S-3 and Registration Statement Nos. 333-273446, 333-273445, 333-266485, 333-240190, 333-232912, 333-226541, 333-226540, 333-219535, 333-216704, 333-199744, 333-194481, 333-187123, 333-180037, 333-173204, 333-173203, 333-165781, 333-165780, 333-157974, 333-157972, 333-152014, and 333-152013 on Form S-8 of our reports dated February 16, 2024, relating to the consolidated financial statements of AtriCure, Inc. and subsidiaries (the "Company"), and the effectiveness of the Company's internal control over financial reporting, appearing in the Annual Report on Form 10-K of AtriCure, Inc. for the year ended December 31, 2023.

/s/ Deloitte & Touche LLP

Cincinnati, Ohio
February 16, 2024

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael H. Carrel, certify that:

1.I have reviewed this annual report on Form 10-K of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2024

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO
SECTION 13(a) OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Angela L. Wirick, certify that:

1. I have reviewed this annual report on Form 10-K of AtriCure, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2024

By: /s/ Angela L. Wirick
Angela L. Wirick
Chief Financial Officer
(Principal Accounting and Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of AtriCure, Inc. (the "Company") on Form 10–K for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael H. Carrel, President and Chief Executive Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 16, 2024

By: /s/ Michael H. Carrel
Michael H. Carrel
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of AtriCure, Inc. (the "Company") on Form 10–K for the year ended December 31, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Angela L. Wirick, Chief Financial Officer of the Company, certify, pursuant to Rule 13a–14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 16, 2024

By: /s/ Angela L. Wirick
Angela L. Wirick
Chief Financial Officer
(Principal Accounting and Financial Officer)

A signed original of this written statement or other document authenticating, acknowledging, or otherwise adopting the signature that appears in typed form within the electronic version of this written statement has been provided to AtriCure, Inc. and will be retained by AtriCure, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code) and is not being filed as part of the report or as a separate disclosure document.

Exhibit 97

Incentive Compensation Recoupment Policy (the "Policy")

1. Recoupment. If AtriCure, Inc. (the "**Company**") is required to prepare a Restatement, the Company's board of directors (the "**Board**") shall, unless the Board's Compensation Committee determines it to be Impracticable, take reasonably prompt action to recoup all Recoverable Compensation from any Covered Person. Subject to applicable law and compliance with Internal Revenue Code Section 409A and the rules and regulations promulgated thereunder, the Board may seek to recoup Recoverable Compensation by requiring a Covered Person to repay such amount to the Company; by adding "holdback" or deferral policies to incentive compensation; by adding post-vesting "holding" or "no transfer" policies to equity awards; by set-off of a Covered Person's other compensation; by reducing future compensation; or by such other means or combination of means as the Board, in its sole discretion, determines to be appropriate. This Policy is in addition to (and not in lieu of) any right of repayment, forfeiture or off-set against any Covered Person that may be available under applicable law (whether implemented prior to or after adoption of this Policy). The Board may, in its sole discretion and in the exercise of its business judgment, determine whether and to what extent additional action is appropriate to address the circumstances surrounding any Restatement to minimize the likelihood of any recurrence and to impose such other discipline as it deems appropriate.

2. Administration of Policy. The Board shall have full authority to administer, amend or terminate this Policy. The Board shall, subject to the provisions of this Policy, make such determinations and interpretations and take such actions in connection with this Policy as it deems necessary, appropriate or advisable. All determinations and interpretations made by the Board shall be final, binding and conclusive. The Board may delegate any of its powers under this Policy to the Compensation Committee of the Board or any subcommittee or delegate thereof.

3. No Indemnification. Notwithstanding the terms of any of the Company's organizational documents, any corporate policy or any contract, no Covered Person shall be indemnified against the loss of any Recoverable Compensation.

4. Disclosures. The Company shall make all disclosures and filings with respect to this Policy and maintain all documents and records that are required by the applicable rules and forms of the U.S. Securities and Exchange Commission (the "**SEC**") (including, without limitation, Rule 10D-1 promulgated under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**")) and any applicable exchange listing standard.

5. Definitions. In addition to terms otherwise defined in this Policy, the following terms, when used in this Policy, shall have the following meanings:

"Applicable Period" means the three completed fiscal years preceding the earlier of: (i) the date that the Board, a committee of the Board, or the officer or officers of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare a Restatement; or (ii) the date a court, regulator, or other legally authorized body directs the Company to prepare a Restatement.

"Covered Person" means any person who receives Recoverable Compensation.

"Executive Officers" means the Company's officers under the definition of Exchange Act Rule 16a-1(f) as identified by the Board.

"Financial Reporting Measure" means a measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements

(including "non-GAAP" financial measures, such as those appearing in earnings releases), and any measure that is derived wholly or in part from such measure. Examples of Financial Reporting Measures include measures based on: revenues, net income, operating income, financial ratios, EBITDA, liquidity measures, return measures (such as return on assets), profitability of one or more segments, sales per square foot, same store sales, revenue per user, and cost per employee. Stock price and total shareholder return ("**TSR**") also are Financial Reporting Measures.

"Impracticable" means, after exercising a normal due process review of all the relevant facts and circumstances and taking all steps required by Exchange Act Rule 10D-1 and any applicable exchange listing standard, the Compensation Committee determines that recovery of the Incentive-Based Compensation is impracticable because: (i) it has determined that the direct expense that the Company would pay to a third party to assist in recovering the Incentive-Based Compensation would exceed the amount to be recovered; (ii) it has concluded that the recovery of the Incentive-Based Compensation would violate home country law adopted prior to November 28, 2022; or (iii) it has determined that the recovery of Incentive-Based Compensation would cause a tax-qualified retirement plan, under which benefits are broadly available to the Company's employees, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

"Incentive-Based Compensation" includes any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure; however it does not include: (i) base salaries; (ii) discretionary cash bonuses; (iii) awards (either cash or equity) that are based upon subjective, strategic or operational standards; and (iv) equity awards that vest solely on the passage of time.

"Received" – Incentive-Based Compensation is deemed "Received" in any Company fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of the Incentive-Based Compensation occurs after the end of that period.

"Recoverable Compensation" means all Incentive-Based Compensation (calculated on a pre-tax basis) Received on or after October 2, 2023 by a person: (i) after beginning service as an Executive Officer; (ii) who served as an Executive Officer at any time during the performance period for that Incentive-Based Compensation; (iii) while the Company had a class of securities listed on a national securities exchange or national securities association; and (iv) during the Applicable Period, that exceeded the amount of Incentive-Based Compensation that otherwise would have been Received had the amount been determined based on the Financial Reporting Measures, as reflected in the Restatement. With respect to Incentive-Based Compensation based on stock price or TSR, when the amount of erroneously awarded compensation is not subject to mathematical recalculation directly from the information in an accounting restatement, the amount must be based on a reasonable estimate of the effect of the Restatement on the stock price or TSR upon which the Incentive-Based Compensation was received.

"Restatement" means an accounting restatement of any of the Company's financial statements due to the Company's material noncompliance with any financial reporting requirement under U.S. securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements (often referred to as a "Big R" restatement), or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (often referred to as a "little r" restatement). A Restatement does not include situations in which financial statement changes did not result from material non-compliance with financial reporting requirements, such as, but not limited to retrospective: (i) application of a change in accounting principles; (ii) revision to reportable segment information due to a change in the structure of the Company's internal organization; (iii) reclassification due to a discontinued operation; (iv) application of a change in reporting entity, such as from a reorganization of entities under common control; (v) adjustment to provision amounts in connection with a prior business

combination; and (vi) revision for stock splits, stock dividends, reverse stock splits or other changes in capital structure.

Adopted by the Board of Directors effective December 1, 2023.

ANNEX A

The Board shall provide notice to and seek written acknowledgement of this Policy from each Executive Officer in the form provided below; provided that the failure to provide such notice or obtain such acknowledgement shall have no impact on the applicability or enforceability of this Policy.

ATTESTATION AND ACKNOWLEDGEMENT OF INCENTIVE COMPENSATION RECOUPMENT POLICY

By my signature below, I acknowledge and agree that:

I have received and read the attached Incentive Compensation Recoupment Policy (this "**Policy**").

I hereby agree to abide by all of the terms of this Policy both during and after my employment with the Company, including, without limitation, by promptly repaying or returning any Recoverable Compensation to the Company as determined in accordance with this Policy.

EXECUTIVE OFFICER

_____
Signature

_____
Print Name

_____
Date