

**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, 2024

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:**

<b>Title of each class</b>	<b>Trading Symbol(s)</b>	<b>Name of each exchange on which registered</b>
Common Stock, \$0.001 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, 2024, the last business day of the registrant's most recently completed second fiscal quarter as reported on the NASDAQ Global Market, was approximately \$ 1,073.1 million.

<b>Class</b>	<b>Outstanding February 11, 2025</b>
Common Stock, \$0.001 par value	48,879,604

**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.



[Table of Contents](#)

**TABLE OF CONTENTS**

<u>PART I</u>		2
<u>ITEM 1.</u>	<u>BUSINESS</u>	2
<u>ITEM 1A.</u>	<u>RISK FACTORS</u>	15
<u>ITEM 1B.</u>	<u>UNRESOLVED STAFF COMMENTS</u>	31
<u>ITEM 1C.</u>	<u>CYBERSECURITY</u>	31
<u>ITEM 2.</u>	<u>PROPERTIES</u>	33
<u>ITEM 3.</u>	<u>LEGAL PROCEEDINGS</u>	33
<u>ITEM 4.</u>	<u>MINE SAFETY DISCLOSURES</u>	33
<u>PART II</u>		34
<u>ITEM 5.</u>	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	34
<u>ITEM 6.</u>	<u>RESERVED</u>	34
<u>ITEM 7.</u>	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	35
<u>ITEM 7A.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	41
<u>ITEM 8.</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	43
<u>ITEM 9.</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	69
<u>ITEM 9A.</u>	<u>CONTROLS AND PROCEDURES</u>	69
<u>ITEM 9B.</u>	<u>OTHER INFORMATION</u>	71
<u>ITEM 9C.</u>	<u>DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS</u>	71
<u>PART III</u>		71
<u>ITEM 10.</u>	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	71
<u>ITEM 11.</u>	<u>EXECUTIVE COMPENSATION</u>	71
<u>ITEM 12.</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	72
<u>ITEM 13.</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	72
<u>ITEM 14.</u>	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	72
<u>PART IV</u>		73
<u>ITEM 15.</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	73
<u>ITEM 16.</u>	<u>FORM 10-K SUMMARY</u>	74
<u>SIGNATURES</u>		75

## [Table of Contents](#)

### **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 expectations, 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 describe risks and uncertainties that could cause actual results and events to differ materially in "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures About Market Risk" (Part II, Item 7A of this Form 10-K). Readers are cautioned not to place undue reliance on forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise unless required by law.*

### **WEBSITE AND SOCIAL MEDIA DISCLOSURE**

We use our website ([www.atricure.com](http://www.atricure.com)) and our corporate Facebook, Instagram, YouTube, LinkedIn and X 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® clamp, AtriClip® Flex-V® device, and cryoSPHERE® probes, 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.

---

[Table of Contents](#)

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 59 million people worldwide 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 (non-paroxysmal). 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 4 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 patient is undergoing heart surgery for other conditions, such as a mitral or aortic valve repair or a coronary artery bypass, and our products are used by physicians 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 our ablation and 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 multiple pain management strategies that include oral delivery of opioid and non-opioid pain medications. Our cryoICE cryoSPHERE® probes for pain management (known as 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 also 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, technological advancements have made surgical ablation more effective, repeatable and available to cardiac surgeons and electrophysiologists around the world. Societal guidelines from the Society of Thoracic Surgeons (STS), Heart Rhythm Society (HRS) and American Association of Thoracic Surgery (AATS) 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 2024, the European Society of Cardiology (ESC) released Guidelines for Management of Atrial Fibrillation developed in collaboration with the European Association of Cardio-Thoracic Surgery (EACTS), in which they upgraded LAAM to the highest Class 1 recommendation. During

## Table of Contents

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 LAAM 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. Therefore, we believe that the market for our ablation products represents a significant growth opportunity.

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. In 2021, 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. Due to 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 AtriClip system represents a significant growth opportunity.

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 500,000 Afib patients are treated by catheter ablation every year in the United States, a number that is expected to grow well over 10% 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 our 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 150,000 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 cryogenic 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 probes, which are 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 products 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.

## [Table of Contents](#)

### **AtriCure Solutions and Products**

We believe that we are currently the market leader in the surgical treatment of Afib and LAAM, and pioneers of the application of Cryo Nerve Block in cardiothoracic surgical 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 and clinically proven results. We have completed, and continue to invest in, clinical studies for the use of our ablation and LAAM products to treat Afib, reduce post-operative Afib, and prevent strokes. 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 cryogenic (cryo) modalities. Our ablation products are part of platforms, each consisting of disposable hand pieces which connect to either a RF generator or a cryo 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. The system consists of the clamp and an RF generator. 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 within our Isolator Synergy clamp line are in compliance with the European Union Medical Device Regulations (EU MDR) and bear the CE mark for commercial distribution throughout the member states of the European Union (EU) and other countries that comply with or mirror EU MDR. These products are available for sale in a number of other countries globally.

In 2022, we launched the EnCompass® clamp in the United States, following 510(k) clearance in 2021. The EnCompass clamp is indicated for cardiac soft tissue ablation and is designed to make concomitant surgical ablations more efficient and is expected to drive deeper penetration of cardiac surgery procedures. In 2024, we received 510(k) clearance for our most recent configuration of the Isolator Synergy platform, the EnCapture™ clamp, which has enhanced geometry and features to facilitate engagement with the intended cardiac tissue.

- **Multifunctional Pens and Linear Ablation Devices.** These devices are single-use disposable RF products that come in multiple configurations. Surgeons generally use one or more of our pen and linear devices in combination with Isolator Synergy clamps. 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. Certain configurations of our pen and linear ablation devices are also cleared or approved for sale outside of the United States.

#### ***Products for open ablation:***

- **cryoICE Cryoablation System.** The cryoICE® cryoablation system is used in both open ablation procedures and cryoanalgesia for post-operative pain management. 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 various configurations of cryoICE devices enable the user to make linear ablations of varied length, providing the surgeon with options to address the specific procedural objectives. Surgeons may utilize the cryoICE devices in combination with Isolator Synergy clamps or independently.

## [Table of Contents](#)

Our cryoablation devices are cleared for sale in the United States under FDA 510(k) clearances, and are in compliance with EU MDR and bear the CE mark for commercial distribution throughout the member states of the EU and other countries that comply with or mirror EU MDR. 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 and the EPi-Sense ST ® Guided Coagulation System utilize monopolar RF energy for the coagulation of tissue. The system consists of the device and an RF generator. 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 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 this advanced disease. The EPi-Sense System is in compliance with EU MDR and bear the CE mark for commercial distribution throughout the member states of the EU and other countries that comply with or mirror EU MDR. This system is available for sale in a number of other countries globally.

In 2024, FDA granted 510(k) clearance for EPi-Ease™, our Hybrid access device to facilitate guide-wire delivery, vacuum application and endoscope insertion.

### ***Products for pain management:***

- **cryoSPHERE probes.** The cryoSPHERE probe is used to apply cryogenic 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 therapy has generally shown a significant reduction in prescription of opioids, significantly reduced length of stay for patients in the hospital and reduced healthcare utilization costs. The cryoSPHERE probe is 510(k) cleared for managing pain by temporarily ablating peripheral nerves and is in compliance with EU MDR and bears the CE mark for commercial distribution throughout the member states of the EU and other countries that comply with or mirror EU MDR.

During 2024, we launched two new cryoSPHERE probes for pain management in the United States. The cryoSPHERE ®+ cryoablation probe leverages new technology that minimizes thermal loss by focusing energy at the ball tip, allowing for a reduction in freeze time by 25%. The cryoSPHERE MAX™ probe features a larger ball tip, designed to optimize Cryo Nerve Block therapy. The cryoSPHERE MAX probe reduces freeze times by 50% when compared to the first generation cryoSPHERE cryoablation probe, and over 30% when compared to the cryoSPHERE+ probe.

### ***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 applicer. The AtriClip device is designed to exclude the left atrial appendage by mechanically clamping the appendage from the outside of the heart. In addition to the risk of blood clots originating in the left atrial appendage, the left atrial appendage has also 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 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 a "V" shape which allows for an alternative lateral access, and a variety of lengths which are matched to each patient's anatomy. The applicers come in multiple forms tailored to specific procedural needs depending on the type of surgery and how the surgeon is accessing the heart.

## Table of Contents

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 are in compliance with EU MDR and bear the CE mark for commercial distribution throughout the member states of the EU and other countries that comply with or mirror EU MDR. These products are available for sale in a number of other countries globally.

During 2024, we launched the newest generation AtriClip, the AtriClip® FLEX-Mini™ device, in the United States. The AtriClip FLEX-Mini sets a new standard as the smallest profile for a surgical LAA device on the market and builds upon the proven technology and clinical benefits of our AtriClip platform, with ease of use and design simplicity that offers enhanced access and increased visibility for physicians.

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

We sell additional products and enabling technologies that hold 510(k) approvals, and certain products are in compliance with EU MDR and bear the CE mark for commercial distribution. 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, may develop post-operative Afib, 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 seven years, the Society for Thoracic Surgeons (STS), Heart Rhythm Society (HRS), American College of Cardiology (ACC), American Heart Association (AHA), American College of Clinical Pharmacy (ACCP), European Society of Cardiology (ESC) and European Association of Cardio-Thoracic Surgery (EACTS) have released new guidelines on the surgical treatment of Afib in both open-heart and minimally-invasive settings, as well as the management of the left atrial appendage in surgical procedures.

**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

## [Table of Contents](#)

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. We enrolled our first patient in January 2023; site initiation and enrollment is ongoing and we expect to complete enrollment in 2025.

**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, FDA granted 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 long-standing persistent 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. Site initiation and enrollment in the CONVERGE PAS is ongoing.

We have and will continue to invest 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 Company continues to perform long-term patient follow-up in multiple studies and plans to present results at 2025 meetings.

## Table of Contents

- In May 2024, the Company finished twelve-month patient follow-up required by the ICE-AFIB study protocol. The Company has completed the analyses of the primary effectiveness and safety endpoints and is pursuing publication opportunities with reputable cardiac surgery journals. 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 CEASE-AF three-year outcomes abstract was submitted and accepted for presentation at the 2025 European Heart Rhythm Association (EHRA) meeting. 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 two-year DEEP outcomes poster has been accepted for presentation at the 2025 AF Symposium. 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 conducting analyses of 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 310 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 70 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 endocardial 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 and have not been studied for the treatment of long-standing persistent Afib. Since our Hybrid AF Therapy involves both epicardial and endocardial techniques, we believe these catheters are complementary to our business because 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 cryo nerve block therapies for thoracic surgery. There are other companies outside of the United States who market their devices for a similar therapy.

## [Table of Contents](#)

### **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.

#### ***United States 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.

## [Table of Contents](#)

**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 (AdvaMed Code)

## [Table of Contents](#)

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 by incorporating its fundamental principles into our Global Health Care Compliance Manual and incorporated its principles in our compliance policies, 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.

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 into our Global Health Care Compliance Manual, employee training programs and relationships with medical professionals. This manual also takes into account other global compliance principles as set forth in other international codes of ethics, such as the APAC Med Code of Ethical Conduct and AdvaMed China Code.

Global anti-bribery laws such as the US Foreign Corrupt Practices Act, the UK Anti-Bribery Act, and other similar laws apply in markets around the world. We have incorporated these principles into our compliance policies and Global Health Care Compliance Manual, training programs, and business practices.

**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.

### **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

## [Table of Contents](#)

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, 2024, we had approximately 1,300 employees. Our Board of Directors, along with the Compensation Committee, provides oversight of human capital management including demographics, diversity and inclusion efforts, and aspects of employee compensation.

## [Table of Contents](#)

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, we include a “people objective” in our annual incentive plan to ensure focus and accountability.

### ***Talent Attraction and Retention***

We attract top talent to AtriCure, provide mechanisms for them to take ownership of their career paths and support their career aspirations to build a long-term future with our company. Over the last five years, the voluntary turnover rate among our employees has remained consistently below 12%, outperforming the industry average for medical device companies. 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 nine times in the past ten years, and internationally, our employees have voted us a Great Place to Work for three 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 the 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; Manager Foundations Certification Program to provide all people-managers with tools and resources to be effective managers, 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 and the Sales Training Associates program focused on rotating talent within functions to support future commercial roles. 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 create 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. In 2024, the Company earned recognition by Fast Company, Inc. as the company that offers the best opportunities for women innovators. This honor reflects our commitment to fostering an environment where women can thrive, innovate and lead in advancing solutions. Our DE&I framework guides our long-term vision and is grounded in the following objectives:

- Attract and develop employees resembling the diversity of the communities 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.
- Collaborate with our partners to engage communities to promote heart health awareness.

## Table of Contents

Our DE&I efforts and programs advance our commitment 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 local jurisdictions of our other offices, those locations are also 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. 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.

## [Table of Contents](#)

### **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.
- Government and private payors may 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 or stock price.
- 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, prevention of stroke, or reduction of post-operative Afib, 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.

## Table of Contents

- 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.
- 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.
- The use of artificial intelligence technology by our employees or business partners could result in misuse or loss of proprietary information, violation of laws and regulations, or damage to our reputation and credibility.

### **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 challenge 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.

## [Table of Contents](#)

### **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. We expect that sales of our ablation and LAAM 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 post-operative 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, short and 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 United States, 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. The introduction of new products, procedures or clinical solutions, or our competitors obtaining FDA approvals or clearances, 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.

## [Table of Contents](#)

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 products 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 products 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 even after reviewing and providing comment on a protocol for a pivotal clinical trial;
- approve or clear a product 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 products.

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 may 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 obtain financing 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

## [Table of Contents](#)

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 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 United States and internationally could harm our business. Some healthcare providers in the United States 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 market 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 Afib, prevention of stroke, or reduction of post-operative Afib, 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.

## [Table of Contents](#)

### **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 as well as third-party vendors for the manufacturing of our RF generator and our EPi-Sense System. We have significant concentrations with a limited number of vendors. It would be a time consuming and lengthy process to secure these products from an alternative supplier. Additionally, our devices are sterilized prior to use using ethylene oxide at third-party sterilizers. Recently, certain sterilization facilities have experienced voluntary or 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 have taken 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

## [Table of Contents](#)

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.

## [Table of Contents](#)

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 regulations 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.

## [Table of Contents](#)

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.

## [Table of Contents](#)

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, prevention of stroke, or reduction of post-operative Afib, 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 and/or reduction of Afib and related complications, such as stroke. Unless the products are approved or cleared by FDA specifically for the treatment of Afib, prevention of stroke, or reduction of post-operative Afib, 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, 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, prevention of stroke, or reduction of post-operative Afib. Unless and until we obtain FDA clearance or approval for the use of our other products to treat Afib, prevent stroke, or reduce post-operative Afib, we, and others acting on our behalf, may not claim in the United States that such products are safe and effective for such uses or otherwise promote them for such uses. Similar restrictions also exist outside of the United States. 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

## [Table of Contents](#)

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.

### **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.

## [Table of Contents](#)

### **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

## [Table of Contents](#)

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.

## [Table of Contents](#)

### **The use of artificial intelligence ("AI") technology by our employees or business partners could result in misuse or loss of proprietary information, violation of laws and regulations, or damage to our reputation and credibility.**

Our employees and business partners may use AI technology to perform their work. Our sensitive information could be leaked, disclosed, or revealed as a result of or in connection with use of AI technology. Additionally, the use and disclosure of personal data in AI technology is subject to various data privacy laws and other data privacy obligations. Governments have passed and are likely to pass additional laws regulating AI. Our use of this technology could result in additional compliance costs, regulatory investigations and actions and lawsuits. Further, the cost to comply with such laws or regulations, or decisions and/or guidance interpreting existing laws, could be significant and would increase our operating expenses, which could adversely affect our business, financial condition and results of operations.

### **Financial Risks**

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

We have a history of net losses, including \$44,698 in 2024, \$30,438 in 2023, and \$46,466 in 2022. As of December 31, 2024, we had an accumulated deficit of \$401,755.

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 challenge 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, 2024, 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

## [Table of Contents](#)

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. Although 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.

## [Table of Contents](#)

### **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 experienced 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.

## [Table of Contents](#)

### **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 the following:

- 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

## [Table of Contents](#)

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 52,000 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 European service activities and is approximately 19,000 square feet.

The Company believes that its existing facilities are adequate to meet its immediate needs. We intend to add new facilities as we grow, and we believe 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 11 – 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**

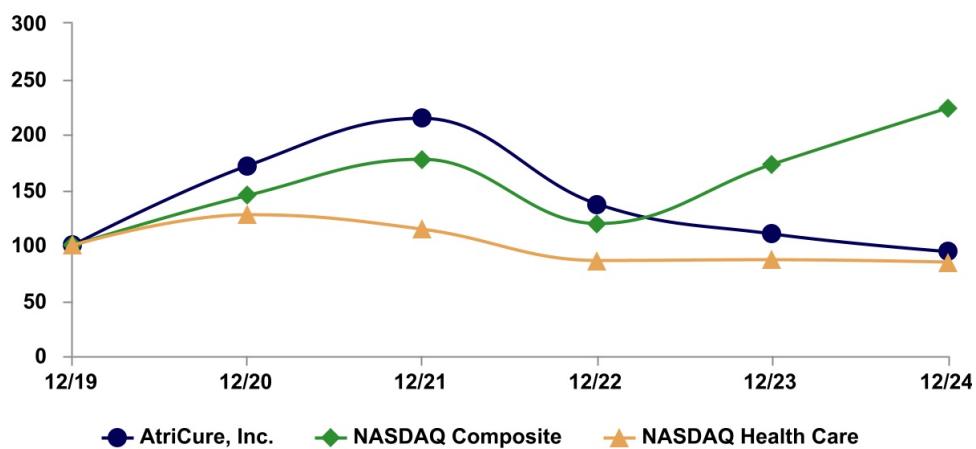
Our common stock is traded on the NASDAQ Global Market under the symbol "ATRC." As of February 11, 2025, the closing price of our common stock on the NASDAQ Global Market was \$41.51 per share, and the number of stockholders of record was 59.

**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, 2019, and ending on December 31, 2024.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\***

Among AtriCure, Inc., the NASDAQ Composite Index  
and the NASDAQ Health Care Index



\*\$100 invested on 12/31/19 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

This graph assumes that \$100.00 was invested on December 31, 2019, 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.

	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024
AtriCure, Inc.	\$ 100.00	\$ 171.24	\$ 213.87	\$ 136.51	\$ 109.78	\$ 94.00
NASDAQ Composite	\$ 100.00	\$ 144.92	\$ 177.06	\$ 119.45	\$ 172.77	\$ 223.87
NASDAQ Health Care	\$ 100.00	\$ 127.18	\$ 114.41	\$ 86.04	\$ 86.74	\$ 84.53

**ITEM 6. [RESERVED]**

## [Table of Contents](#)

### **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 2024 and 2023 items and year-to-year comparisons between 2024 and 2023. 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, 2023 compared to December 31, 2022**

For a comparison of our results of operations for the years ended December 31, 2023 and December 31, 2022, 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, 2023, filed with the SEC on February 16, 2024.

#### **Overview**

We are a leading innovator in treatments for atrial fibrillation, left atrial appendage management and post-operative pain management. Our ablation and left atrial appendage management 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 2024, we realized significant global revenue growth and continued our strategic initiatives of product innovation, clinical science and physician education and training to expand awareness and adoption. Our worldwide revenues for the year ended December 31, 2024 of \$465,307 was an increase of 16.5% over the prior year driven by growing adoption across key product lines as well as new product launches. Historically there have been limited competitors in our key markets, but new entrants are marketing and developing competing products, procedures, and/or clinical solutions that may cause variability in our results.

Highlights of the strategic and operational advancements in 2024 include:

**PRODUCT INNOVATION.** We continue to invest in research and development of new products and pursue regulatory approvals to market and sell globally across all franchises.

- **Open.** Upon receiving regulatory approval during the third quarter of 2024, we began selling the EnCompass clamp in CE-marked countries in the European Union, representing a significant expansion of our open ablation franchise products in Europe.
- **Minimally invasive.** In the first half of 2024, FDA granted 510(k) clearance for EPi-Ease, our Hybrid access device to facilitate guide-wire delivery, vacuum application and endoscope insertion. During the third quarter, FDA granted 510(k) clearance for our EnCapture clamp, the newest in our line of Isolator Synergy Ablation System clamps, with enhanced geometry and features to facilitate engagement with intended cardiac tissue.
- **Pain management.** During the second quarter of 2024, we launched the cryoSPHERE+ cryoablation probe for pain management in the United States. The cryoSPHERE+ device leverages new technology that minimizes thermal loss by focusing energy at the ball tip, allowing for a reduction in freeze time by 25%. Further, the cryoSPHERE MAX probe was launched during the fourth quarter of 2024 and features a larger ball tip designed

## [Table of Contents](#)

to optimize Cryo Nerve Block therapy. This new probe reduces freeze times by 50% when compared to the first generation cryoSPHERE cryoablation probe, and over 30% when compared to the cryoSPHERE+ probe.

- **Appendage management.** We launched the AtriClip FLEX-Mini device in the United States during the third quarter of 2024. The AtriClip FLEX-Mini sets a new standard as the smallest profile for surgical LAA device on the market and builds upon the proven technology of our AtriClip platform, with ease of use and design simplicity that offers enhanced access and increased visibility for physicians. We also obtained additional international regulatory approvals for our AtriClip platform during the third quarter. In China, we received approval to market and sell several models of our AtriClip Left Atrial Appendage Exclusion System from the National Medical Products Administration (NMPA) of China. In CE-marked countries in Europe, we received expanded indication for the AtriClip for use in patients at high risk of thromboembolism for whom left atrial appendage exclusion is warranted.

Throughout 2024, we received several additional CE Mark certifications under the European Union Medical Device Regulation (EU MDR). As of December 31, 2024, substantially all of our products were cleared under EU MDR. During the fourth quarter of 2024, we entered into an exclusive licensing agreement with a third-party to co-develop and commercialize equipment incorporating pulsed field ablation. See Note 3 - Asset Acquisition for additional information.

**CLINICAL SCIENCE.** We invest in studies to expand labeling claims, support various indications for our products and publish clinical data for therapies and procedures involving our products. During 2024, we supported the publication of 19 articles and 17 congress abstracts featuring clinical studies with our product.

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 2024 with over 4,200 patients enrolled. Site initiation and enrollment is ongoing.

BoxX-NoAF. The EnCompass clamp and the AtriClip in Box Lesion and Left Atrial Appendage E Xclusion Procedure for the Prevention of New Onset of Atrial Fibrillation (BoxX-NoAF) IDE trial will evaluate the impact of concomitant ablation and LAA exclusion in non-AF patients for the reduction of post-operative AF (POAF) and Clinical AF. This prospective, multi-center, multi-national randomized trial evaluates safety at 30 days post-procedure for POAF and secondary effectiveness for Clinical AF through three years. The trial provides for enrollment of up to 960 subjects. During the fourth quarter of 2024, FDA approved the trial protocol. We expect site initiation to begin by the end of 2025.

**TRAINING.** Our professional education and marketing teams conduct a variety of virtual and in-person training programs for physicians and other healthcare professionals. These training methods ensure 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 be enhanced by the use of simulation models or synthetic cadavers, known as CADets. These reusable CADets provide a sustainable alternative to the use of cadaver specimens, in addition to increasing the efficiencies of education and more cost effective training alternatives. In 2024, we continue to innovate physician training to improve accessibility and efficiency for our physician partners. We are currently piloting the use of live streaming to enable remote proctoring and case observation.

**SOCIETY GUIDELINES.** In 2024, the European Society of Cardiology (ESC) released Guidelines for Management of Atrial Fibrillation developed in collaboration with European Association of Cardio-Thoracic Surgery (EACTS), in which they upgraded LAAM to the highest Class 1 recommendation. During 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 LAAM to the highest recommendation of Class 1 and included Hybrid AF Therapy as a Class 2 recommendation. All major cardiac societal guidelines now include a Class 1 recommendation for surgical management of the left atrial appendage. These societal guidelines are reflective of the scientific evidence suggesting that surgical and hybrid ablation is safe and effective for patients who have Afib.

[Table of Contents](#)

**Results of Operations**

**Year Ended December 31, 2024 compared to December 31, 2023**

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,			
	2024		2023	
	Amount	% of Revenue	Amount	% of Revenue
Revenue	\$ 465,307	100.0 %	399,245	100.0 %
Cost of revenue	117,783	25.3	98,875	24.8
Gross profit	347,524	74.7	300,370	75.2
Operating expense:				
Research and development expenses	96,178	20.7	73,915	18.5
Selling, general and administrative expenses	291,359	62.6	253,138	63.4
Total operating expenses	387,537	83.3	327,053	81.9
Loss from operations	(40,013)	(8.6)	(26,683)	(6.7)
Other expense, net	(3,661)	(0.8)	(3,164)	(0.8)
Loss before income tax expense	(43,674)	(9.4)	(29,847)	(7.5)
Income tax expense	1,024	0.2	591	0.1
Net loss	\$ (44,698)	(9.6) %	\$ (30,438)	(7.6)%

**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	
	2024	2023	Amount	%
Open ablation	\$ 123,647	\$ 105,287	\$ 18,360	17.4 %
Minimally invasive ablation	45,737	44,577	1,160	2.6 %
Pain management	61,844	49,199	12,645	25.7 %
Appendage management	151,588	134,481	17,107	12.7 %
Total United States	\$ 382,816	\$ 333,544	\$ 49,272	14.8 %
Total International	82,491	65,701	16,790	25.6 %
Total Revenue	\$ 465,307	\$ 399,245	\$ 66,062	16.5 %

Worldwide revenue increased 16.5% as reported and on a constant currency basis. We experienced growth in all key product lines as a result of deepening market penetration, continuing physician adoption and new product launches. International revenue increased 25.6% as reported and on a constant currency basis, across all franchises and major geographic regions, while key products contributing to the increase in revenue in the United States were:

- EnCompass clamp in open ablation,
- cryoSPHERE probes for post-operative pain management and
- AtriClip® Flex-V® for appendage management.

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.

## [Table of Contents](#)

**Cost of revenue and gross margin.** Cost of revenue increased \$18,908 primarily reflecting higher sales volumes. Gross margin decreased by 55 basis points driven by less favorable geographic and product mix, as well as an increase in product costs.

**Research and development expenses.** Research and development expenses increased \$22,263, or 30.1%. During 2024, we entered into an exclusive licensing agreement requiring upfront cash payment of \$12,000 for the acquired in-process research and development (IPR&D), which was included in research and development expenses in 2024. See Note 3 – Asset Acquisition for further information. Expansion of product development, regulatory and clinical teams resulted in additional headcount-related costs (including travel and share-based compensation) of \$6,773. Clinical trial expenses increased \$4,801 due to increased trial activity driven by our LeAAPS clinical trial. These increases were partially offset by a \$1,606 decrease in product development project spend and regulatory approval costs as several new products were brought to market in 2024, including cryoSPHERE+ and AtriClip FLEX-Mini.

**Selling, general and administrative expenses.** Selling, general and administrative expenses increased \$38,221, or 15.1%. Personnel costs, including travel and share-based compensation, increased \$27,384 as a result of growth in headcount and variable compensation. Operational growth drove \$2,156 additional professional services, IT and corporate costs along with \$2,079 additional marketing and meeting activities. Finally, the increase reflects a \$4,412 non-recurring net gain in 2023 related to legal settlements. See Note 11 – Commitments and Contingencies for related discussion.

**Other income and expense.** During 2024, the Company recognized a loss on debt extinguishment of \$1,362. See Note 9 - Indebtedness for related discussion. The remaining activity consists primarily of net interest expense and net foreign currency transaction losses.

## **Liquidity and Capital Resources**

As of December 31, 2024, we had cash and cash equivalents of \$122,721 and unused borrowing capacity of approximately \$61,885 under our existing credit agreement. All cash equivalents 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 \$194,402 and an accumulated deficit of \$401,755 as of December 31, 2024.

**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, clinical trials and contractual development costs; costs to expand and support our sales and marketing efforts; operating and filing costs required by 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; costs to defend against and/or resolve litigation or claims against us; 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, changing interest rates, and fluctuations in currency exchange rates that may impact our liquidity and access to capital resources.

**Credit facility.** On 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. The proceeds of the ABL Facility were used to terminate the Company's indebtedness under the prior loan agreement with Silicon Valley Bank. As of December 31, 2024, our outstanding debt was \$61,865 and we had unused borrowing availability of approximately \$61,885.

Our corporate headquarters lease requires a \$1,250 letter of credit which renews annually and remains outstanding as of December 31, 2024.

## [Table of Contents](#)

For additional information on the terms and conditions, as well as applicable interest and fee payments, see Note 9 – 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. In recent years, we have expanded the manufacturing and engineering facilities in our Mason, Ohio campus and expect to continue to invest in facilities to support our growth.

**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 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.

In 2024, we entered into an exclusive licensing agreement to co-develop and commercialize equipment incorporating PFA technology. The agreement requires that we pay additional contingent consideration in cash upon achievement of specified developmental and regulatory approval milestones within defined periods over the ten-year term. We expect to disburse between \$6,000 and \$10,000 based on estimated achievement of milestone payments within the next twelve months. For additional information, see Note 3 – Asset Acquisition.

We have operating and finance leases primarily for our 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, 2024, current finance lease obligations are \$1,186 and long-term obligations are \$7,281. Our operating leases for office and warehouse space includes current obligations of \$1,619 and long-term obligations of \$4,579 as of December 31, 2024. For additional information, see Note 10 – Leases.

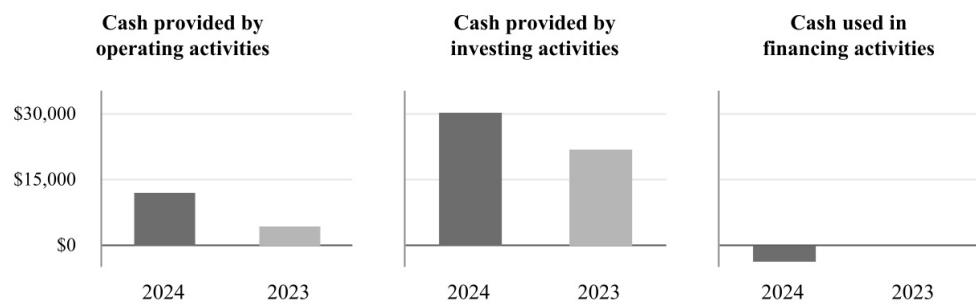
We have a contractual obligation for a contingent consideration payment under the SentreHEART merger agreement that would be paid in AtriCure common stock and cash, up to a specified maximum number of shares. As of December 31, 2024, we believe the likelihood of payment is remote, and the estimated fair value of the contingent consideration is \$0. See Note 2 – Fair Value.

**Sources of liquidity.** We believe that our current cash and cash equivalents, 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 a shelf registration statement on file with the SEC 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.

## Table of Contents

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



	Years Ended December 31,		Change
	2024	2023	
Net cash provided by operating activities	\$ 12,204	\$ 4,484	\$ 7,720
Net cash provided by investing activities	30,234	21,817	8,417
Net cash used in financing activities	(3,603)	(32)	(3,571)

**Cash flows provided by operating activities.** Net cash provided by operating activities increased \$7,720 in 2024 as compared to 2023. While operating results declined \$14,260, this decline was driven primarily by an increase in adjustments to income and changes in non-cash expenses as well as the acquisition of in-process research and development for \$12,000. Changes in non-cash expenses include \$4,677 increase in share-based compensation, \$3,920 increase in depreciation & amortization and \$1,362 loss on extinguishment of debt. Cash used in working capital remained flat year over year due to moderating investments in inventory in 2024, offset by higher annual variable compensation due to improved operating performance.

**Cash flows provided by investing activities.** Net cash provided by investing activities increased by \$8,417 in 2024 compared to 2023. This increase is attributable to a \$18,000 decrease in cash paid for acquisitions year over year, offset by a \$10,147 decrease in maturities of available-for-sale securities.

**Cash flows used in financing activities.** Net cash used in financing activities increased by \$3,571 in 2024 compared to 2023, driven by \$1,686 payment for extinguishment of debt and financing fees, net of borrowings, and a \$1,491 decrease in proceeds from stock option exercises and the employee stock purchase plan.

### 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 2024 and 2023. Continued increases in our cost of revenue may affect our ability to maintain our gross margin if 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.

## [Table of Contents](#)

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 along with 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.

## [Table of Contents](#)

### **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 remote. 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. A hypothetical 100 basis-point (one percentage point) increase or decrease in interest rates compared to actual rates at December 31, 2024, would not have had a significant effect on our results.

### **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 10.4% and 9.4% of the Company's total revenue for 2024 and 2023. 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 2024 and 2023, foreign currency transaction losses of \$272 and \$101 were recorded primarily in connection with settlements of the intercompany balances and invoices transacted in Euros, British Pounds, Australian Dollars or Canadian Dollars. 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 fixed 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 conversion 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.

[Table of Contents](#)

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

**ATRICURE, INC. AND SUBSIDIARIES**

**INDEX TO FINANCIAL STATEMENTS**

	<b>Page</b>
<b>Financial Statements:</b>	
<a href="#"><u>Report of Independent Registered Public Accounting Firm (PCAOB ID No. 34)</u></a>	44
<a href="#"><u>Consolidated Balance Sheets</u></a>	46
<a href="#"><u>Consolidated Statements of Operations and Comprehensive Loss</u></a>	47
<a href="#"><u>Consolidated Statements of Stockholders' Equity</u></a>	48
<a href="#"><u>Consolidated Statements of Cash Flows</u></a>	49
<a href="#"><u>Notes to Consolidated Financial Statements</u></a>	50

## 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, 2024 and 2023, 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, 2024, 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, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, 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, 2024, 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 14, 2025, 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.

## [Table of Contents](#)

### **Valuation of Performance Shares - Refer to Note 15 to the financial statements**

#### *Critical Audit Matter Description*

Performance share awards and performance share units (collectively, Performance Shares) were granted in 2024 with a grant date fair value of \$15,007. The Performance Shares vest based on the achievement of performance conditions and/or market conditions.

The number of Performance Shares with a market condition that vest and are issued to the recipient is based upon either: (i) the Company's total shareholder return (TSR) relative to the TSR of the selected market index or (ii) the Company's simple moving average of the closing price of the Company's Common Stock during the sixty calendar days immediately prior to and including the Measurement Period Dates at the end of the defined performance period. A Monte Carlo simulation was performed to estimate the fair value of the awards with a market condition on the date of grant. The number of Performance Shares with a performance condition that vest and are issued to the recipient is measured based on the Company's revenue compound annual growth rate at the end of the defined performance period as compared to a target threshold. The Company's share-based compensation expense is recognized over the requisite service period as the employee renders service.

The determination of fair value on the grant date 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/or 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 to determine the grant date fair value of the Performance Awards, including the use of a specialist for awards 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 Performance Shares included the following, among others:

- We inquired with management regarding the key valuation assumptions and the methodology used in the determination of the grant date fair value of the Performance Shares.
- We tested the design and operating effectiveness of the Company's internal controls over the determination of the grant date fair value of the Performance Shares.
- 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 Performance Share agreements.
- We evaluated management's valuation of Performance Shares with a performance condition through testing of revenue growth assumptions over the defined performance period by comparing to the Company's annual plan and external guidance.
- With the assistance of our fair value specialists, we evaluated management's valuation of Performance Shares 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 Performance Shares using the underlying agreement and independently calculated valuation inputs.

/s/ Deloitte & Touche LLP

Cincinnati, Ohio  
February 14, 2025

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

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
**DECEMBER 31, 2024 and 2023**  
**(In Thousands, Except Per Share Amounts)**

	2024	2023
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 122,721	\$ 84,310
Short-term investments	—	52,975
Accounts receivable, less allowance for credit losses of \$ 550 and \$ 500	60,339	52,501
Inventories	75,335	67,897
Prepaid and other current assets	9,431	8,563
Total current assets	267,826	266,246
Property and equipment, net	41,659	42,435
Operating lease right-of-use assets	5,727	4,324
Intangible assets, net	56,467	63,986
Goodwill	234,781	234,781
Other noncurrent assets	2,868	2,160
Total Assets	<u><u>\$ 609,328</u></u>	<u><u>\$ 613,932</u></u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable	\$ 25,032	\$ 27,354
Accrued liabilities	45,587	44,682
Current lease liabilities	2,805	2,533
Total current liabilities	73,424	74,569
Long-term debt	61,865	60,593
Finance and operating lease liabilities	11,860	11,368
Other noncurrent liabilities	1,210	1,234
Total Liabilities	148,359	147,764
Commitments and contingencies (Note 11)		
Stockholders' Equity:		
Common stock, \$ 0.001 par value, 90,000 shares authorized; 48,869 and 47,526 issued and outstanding	49	48
Additional paid-in capital	863,710	824,170
Accumulated other comprehensive loss	( 1,035 )	( 993 )
Accumulated deficit	( 401,755 )	( 357,057 )
Total Stockholders' Equity	460,969	466,168
Total Liabilities and Stockholders' Equity	<u><u>\$ 609,328</u></u>	<u><u>\$ 613,932</u></u>

See accompanying notes to consolidated financial statements.

**ATRICURE, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS**  
**YEARS ENDED DECEMBER 31, 2024, 2023 and 2022**  
**(In Thousands, Except Per Share Amounts)**

	2024	2023	2022
Revenue	\$ 465,307	\$ 399,245	\$ 330,379
Cost of revenue	117,783	98,875	84,439
Gross profit	347,524	300,370	245,940
Operating expenses:			
Research and development expenses	96,178	73,915	57,337
Selling, general and administrative expenses	291,359	253,138	231,272
Total operating expenses	387,537	327,053	288,609
Loss from operations	( 40,013 )	( 26,683 )	( 42,669 )
Other income (expense):			
Interest expense	( 6,407 )	( 6,925 )	( 4,986 )
Interest income	4,434	3,792	1,994
Loss on debt extinguishment	( 1,362 )	—	—
Other	( 326 )	( 31 )	( 537 )
Loss before income tax expense	( 43,674 )	( 29,847 )	( 46,198 )
Income tax expense	1,024	591	268
Net loss	\$ ( 44,698 )	\$ ( 30,438 )	\$ ( 46,466 )
Net loss per share:			
Basic and diluted net loss per share	\$ ( 0.95 )	\$ ( 0.66 )	\$ ( 1.02 )
Weighted average shares outstanding - basic and diluted	46,965	46,309	45,740
Comprehensive (loss) income:			
Unrealized gain (loss) on investments	\$ 800	\$ 2,898	\$ ( 2,811 )
Foreign currency translation adjustment	( 842 )	205	( 337 )
Other comprehensive (loss) income	( 42 )	3,103	( 3,148 )
Net loss	( 44,698 )	( 30,438 )	( 46,466 )
Comprehensive loss, net of tax	\$ ( 44,740 )	\$ ( 27,335 )	\$ ( 49,614 )

See accompanying notes to consolidated financial statements.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
**YEARS ENDED DECEMBER 31, 2024, 2023, and 2022**  
(In Thousands)

	Common Stock		Additional		Accumulated		Total Stockholders' Equity
	Shares	Amount	Paid-in Capital	Accumulated Deficit	Other (Loss) Comprehensive Income		
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	
Issuance of common stock under equity incentive plans	1,080	1	(5,929)	—	—	—	(5,928)
Issuance of common stock under employee stock purchase plan	263	—	5,064	—	—	—	5,064
Share-based employee compensation expense	—	—	40,405	—	—	—	40,405
Other comprehensive loss	—	—	—	—	(42)	—	(42)
Net loss	—	—	—	(44,698)	—	—	(44,698)
Balance—December 31, 2024	<u>48,869</u>	<u>\$ 49</u>	<u>\$ 863,710</u>	<u>\$ (401,755)</u>	<u>\$ (1,035)</u>	<u>\$ 460,969</u>	

See accompanying notes to consolidated financial statements.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**YEARS ENDED DECEMBER 31, 2024, 2023 and 2022**  
(In Thousands)

	2024	2023	2022
<b>Cash flows from operating activities:</b>			
Net loss	\$ ( 44,698 )	\$ ( 30,438 )	\$ ( 46,466 )
<b>Adjustments to reconcile net loss to net cash provided by (used in) operating activities:</b>			
Share-based compensation expense	40,405	35,728	28,771
Depreciation	11,214	9,460	8,057
Amortization of intangible assets	7,519	5,353	3,653
Amortization of deferred financing costs	478	486	507
Amortization of investments	107	632	1,478
Acquired in-process research and development expense	12,000	—	—
Loss on debt extinguishment	1,362	—	—
Other non-cash adjustments	2,175	1,503	739
<b>Changes in operating assets and liabilities:</b>			
Accounts receivable	( 8,301 )	( 9,872 )	( 8,989 )
Inventories	( 7,740 )	( 21,830 )	( 7,305 )
Other current assets	( 949 )	( 3,084 )	( 515 )
Accounts payable	( 1,531 )	6,177	2,677
Accrued liabilities	1,199	11,562	( 2,966 )
Other noncurrent assets and liabilities	( 1,036 )	( 1,193 )	( 1,782 )
Net cash provided by (used in) operating activities	<u>12,204</u>	<u>4,484</u>	<u>( 22,141 )</u>
<b>Cash flows from investing activities:</b>			
Purchases of available-for-sale securities	—	—	( 24,637 )
Sales and maturities of available-for-sale securities	53,668	63,815	85,524
Purchases of property and equipment	( 11,459 )	( 11,998 )	( 16,881 )
Proceeds from sale of property and equipment	25	—	—
Acquisitions, including in-process research and development	( 12,000 )	( 30,000 )	—
Net cash provided by investing activities	<u>30,234</u>	<u>21,817</u>	<u>44,006</u>
<b>Cash flows from financing activities:</b>			
Proceeds from revolving credit facility, net of financing costs	61,210	—	—
Payments on debt and leases	( 62,879 )	( 992 )	( 899 )
Payment of financing costs and bank fees	( 1,069 )	( 60 )	—
Proceeds from stock option exercises	1,022	2,316	1,816
Shares repurchased for payment of taxes on stock awards	( 6,951 )	( 6,557 )	( 12,201 )
Proceeds from issuance of common stock under employee stock purchase plan	5,064	5,261	4,225
Net cash used in financing activities	<u>( 3,603 )</u>	<u>( 32 )</u>	<u>( 7,059 )</u>
Effect of exchange rate changes on cash and cash equivalents	( 424 )	( 58 )	( 361 )
Net increase in cash and cash equivalents	38,411	26,211	14,445
Cash and cash equivalents—beginning of period	84,310	58,099	43,654
Cash and cash equivalents—end of period	<u>\$ 122,721</u>	<u>\$ 84,310</u>	<u>\$ 58,099</u>
<b>Supplemental cash flow information:</b>			
Cash paid for interest	\$ 5,951	\$ 6,376	\$ 4,270
Cash paid for income taxes, net of refunds	619	395	192
<b>Non-cash investing and financing activities:</b>			
Accrued purchases of property and equipment	334	1,427	272

See accompanying notes to consolidated financial statements.

## [Table of Contents](#)

# ATRICURE, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

(In Thousands, Except Per Share Amounts)

### **1. DESCRIPTION OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Nature of the Business**—AtriCure, Inc. (the “Company” or “AtriCure”) is a leading innovator in surgical treatments and therapies for atrial fibrillation, left atrial appendage 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 \$ 2,421 , \$ 1,860 and \$ 1,496 in the years ended December 31, 2024, 2023 and 2022.

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

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(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, 2024, 2023 and 2022:

	Year Ended December 31,		
	2024	2023	2022
Beginning balance - January 1	\$ 500	\$ 230	\$ 1,096
Provision for expected credit losses	50	270	190
Recovery	—	—	( 1,056 )
Ending balance - December 31	<u>\$ 550</u>	<u>\$ 500</u>	<u>\$ 230</u>

**Concentration Risk** — During 2024, 2023 and 2022, 8.9 %, 8.8 % and 9.7 % of the Company's total revenue was derived from its top ten customers. As of December 31, 2024 and 2023, 10.4 % and 11.3 % 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, 2024 and 2023. The Company is dependent on third-party suppliers, in some cases single-source suppliers.

**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 are 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 RF and cryo 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.

**Contingent Consideration**—Contingent consideration arrangements obligate the Company to pay certain amounts if specified future events occur or conditions are met, such as the achievement of certain developmental, commercial or regulatory milestones. Contingent consideration obligations incurred in connection with a business combination are recorded at fair value on acquisition date and periodically measured, with changes in the estimated fair value reflected in operating expense. Contingent consideration arrangements arising from asset acquisitions are recorded within operating expenses at the time milestone results are achieved.

**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 their estimated economic benefit 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 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.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
**(In Thousands, Except Per Share Amounts)**

**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 10 – 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 along with 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.

**Net Loss Per Share**—Basic and diluted net loss per share is computed by dividing the net loss available to common stockholders by the weighted average number of common shares outstanding during the period. Since the Company has experienced net losses for all periods presented, net loss per share exclude the effect of 2,583 , 1,668 and 1,292 stock options, restricted stock awards, restricted stock units, performance share awards, and performance share units as of December 31, 2024, 2023 and 2022 because they are anti-dilutive. Therefore, the number of shares calculated for basic net loss per share is also used for the diluted net loss per share calculation.

**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, related regulatory activities, acquired in-process research and development (IPR&D), as well as amortization of technology assets. Research and development costs are expensed as incurred. Clinical trial costs and other

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
**(In Thousands, Except Per Share Amounts)**

development costs incurred by third parties are expensed as contracted work is performed or over the expected service period. Acquired IPR&D expenses reflect the costs of externally developed IPR&D projects acquired in an asset acquisition that do not have an alternative future use. Acquired IPR&D is expensed on the acquisition date and future expenses to develop the IPR&D projects are recorded in research and development expense as incurred. Milestone payments made to third parties in connection with asset acquisitions are expensed as incurred up to the point of regulatory approval.

**Advertising Costs**—The Company expenses advertising costs as incurred. Advertising expense was \$ 2,817 , \$ 1,695 and \$ 1,233 during the years ended December 31, 2024, 2023 and 2022.

**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), performance share units (PSUs) 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 and PSUs 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 chief operating decision maker for the Company is the Chief Executive Officer. The Company has one business activity and operates as one operating segment: the development, manufacture, and sale of devices used by cardiothoracic and thoracic surgeons in surgical procedures, designed primarily for the surgical ablation of cardiac tissue, the exclusion of the left atrial appendage, and 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 the single operating segment. The Chief Executive Officer is regularly provided with consolidated expenses consistent with the presented consolidated statements of operations, accompanied by information about revenue by product type and

## [Table of Contents](#)

### ATRICURE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (In Thousands, Except Per Share Amounts)

geographic area, for purposes of allocating resources and evaluating financial performance. Revenue by product type and geographic area is included at Note 12 - Revenue. The Company's long-lived assets are located in the United States, except for \$ 4,021 as of December 31, 2024 and \$ 3,432 as of December 31, 2023 located primarily in Europe.

**Fair Value Disclosures**—The Company classifies cash equivalents, 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. 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 2024, the FASB issued Accounting Standards Update (ASU) 2024-03, "Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses". This guidance requires disaggregation of certain expense captions into specified categories in disclosures within the footnotes to the financial statements. The guidance is effective for fiscal years beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The Company is currently evaluating the impact of adopting this standard on its consolidated financial statements and disclosures.

## 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 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.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

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, 2024:

	Quoted Prices			Total
	in Active Markets for Identical Assets	Significant Other	Significant Other	
	Markets for Identical Assets	Observable	Unobservable	
	Assets	Inputs	Inputs	
	(Level 1)	(Level 2)	(Level 3)	
<b>Assets:</b>				
Money market funds	\$ 101,147	\$ —	\$ —	\$ 101,147
<b>Total assets</b>	<b>\$ 101,147</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 101,147</b>

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			Total
	in Active Markets for Identical Assets	Significant Other	Significant Other	
	Markets for Identical Assets	Observable	Unobservable	
	Assets	Inputs	Inputs	
	(Level 1)	(Level 2)	(Level 3)	
<b>Assets:</b>				
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
<b>Total assets</b>	<b>\$ 12,711</b>	<b>\$ 118,128</b>	<b>\$ —</b>	<b>\$ 130,839</b>

The estimated fair value of money market funds transferred from a Level 2 fair value measurement to a Level 1 fair value measurement during the year ended December 31, 2024. There were no changes in the levels or methodology of measurement of financial assets and liabilities during the years ended December 31, 2023.

**Contingent Consideration-Business Combination.** 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 PMA approval milestone expired on December 31, 2023, while the achievement period for the reimbursement milestone expires on December 31, 2026. The contingent consideration liability is measured by applying the probability weighted scenario method using unobservable inputs, thus representing a Level 3 measurement within the fair value hierarchy. The Company continues to assess the projected probability of payment during the contractual achievement periods to be remote, resulting in no reported fair value as of December 31, 2024 and 2023.

The Company had no Level 3 fair value measurements using significant other unobservable inputs for contingent consideration in the years ended December 31, 2024, 2023 and 2022.

### 3. ASSET ACQUISITION

On October 15, 2024, the Company entered into an exclusive licensing agreement (Cooperation Agreement) to co-develop and commercialize equipment incorporating pulsed field ablation (PFA) technology. The Company paid cash of \$ 12,000 for the exclusive license of related intellectual property. The transaction was accounted for as an asset acquisition,

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

resulting in acquired in-process research and development (IPR&D). The acquired IPR&D was expensed to research and development expense as we determined there was no alternative future use of the technologies acquired.

The Cooperation Agreement also requires the Company to pay additional contingent consideration, settled in cash, with a maximum payout of \$28,000 if all milestones are achieved successfully within the ten-year term as follows:

- *Development Milestones* - \$ 3,000 to \$ 15,000 for successful delivery of equipment for defined purposes at multiple dates within the next two years and is reduced for calendar days lapsed from delivery dates at specified rates.
- *Regulatory Approval Milestone* - up to \$ 13,000 for First Market Authorization in the United States, as defined in the Cooperation Agreement.

The contingent consideration will be expensed when each milestone is paid or becomes payable as a result of achievement. As of December 31, 2024, the milestones were not yet achieved and, therefore, there is no financial impact during the period. The agreement also contains provisions requiring future royalty payments on devices incorporating co-developed technology upon commercialization.

#### 4. INVESTMENTS

The Company had no investments as of December 31, 2024. 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	<u><u>\$ 53,775</u></u>	<u><u>\$ ( 800 )</u></u>	<u><u>\$ 52,975</u></u>

The gross realized gains or losses from sales of available-for-sale investments were not significant in the years ended December 31, 2024, 2023 and 2022.

#### 5. INTANGIBLE ASSETS AND GOODWILL

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

	2024		2023	
	Cost	Accumulated Amortization	Cost	Accumulated Amortization
Technology	\$ 46,470	\$ 13,103	\$ 46,470	\$ 10,084
Patents	30,000	6,900	30,000	2,400
Total	<u><u>\$ 76,470</u></u>	<u><u>\$ 20,003</u></u>	<u><u>\$ 76,470</u></u>	<u><u>\$ 12,484</u></u>

Amortization expense of intangible assets was \$ 7,519 , \$ 5,353 and \$ 3,653 for the years ended December 31, 2024, 2023 and 2022. The following table summarizes the allocation of amortization expense of intangible assets:

	2024	2023	2022
Cost of revenue	\$ 4,500	\$ 2,400	\$ —
Research and development expenses	3,019	2,953	3,653
Total	<u><u>\$ 7,519</u></u>	<u><u>\$ 5,353</u></u>	<u><u>\$ 3,653</u></u>

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

Future amortization expense is projected as follows:

2025	\$ 8,441
2026	9,535
2027	10,435
2028	6,535
2029	2,935
2030 and thereafter	18,586
<b>Total</b>	<b>\$ 56,467</b>

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, 2022	\$ 234,781
Additions (Impairment)	—
Net carrying amount as of December 31, 2023	234,781
Additions (Impairment)	—
Net carrying amount as of December 31, 2024	\$ 234,781

## 6. INVENTORIES

Inventories consisted of the following at December 31:

	2024	2023
Raw materials	\$ 37,703	\$ 36,751
Work in process	3,604	3,582
Finished goods	34,028	27,564
<b>Inventories</b>	<b>\$ 75,335</b>	<b>\$ 67,897</b>

## 7. PROPERTY AND EQUIPMENT

Property and equipment consisted of the following at December 31:

	2024	2023
Buildings and improvements	\$ 29,309	\$ 29,193
Generators	25,687	23,407
Machinery and office equipment	31,321	24,076
Computer equipment and software	11,300	9,845
Construction in progress	4,331	7,332
Land	1,006	1,006
<b>Total</b>	<b>102,954</b>	<b>94,859</b>
Less accumulated depreciation	( 61,295 )	( 52,424 )
<b>Property and equipment, net</b>	<b>\$ 41,659</b>	<b>\$ 42,435</b>

Depreciation expense was \$ 11,214 , \$ 9,460 and \$ 8,057 for the years ended December 31, 2024, 2023 and 2022. As of December 31, 2024 and 2023, the net carrying value of generators was \$ 4,620 and \$ 4,912 .

## Table of Contents

### ATRICURE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (In Thousands, Except Per Share Amounts)

#### 8. ACCRUED LIABILITIES

Accrued liabilities consisted of the following at December 31:

	2024	2023
Accrued compensation and employee-related expenses	\$ 39,505	\$ 39,425
Sales returns and allowances	3,123	2,754
Other accrued liabilities	2,959	2,503
<b>Total</b>	<b>\$ 45,587</b>	<b>\$ 44,682</b>

#### 9. INDEBTEDNESS

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.

At closing, the Company borrowed \$ 61,865 . The proceeds of the ABL Facility were used to terminate the Company's outstanding indebtedness and final fee under its then-existing Loan and Security Agreement with Silicon Valley Bank (SVB Loan Agreement). Certain prepayment and early termination fees under the SVB Loan Agreement were waived at termination. The SVB Loan Agreement terminated on January 5, 2024 and was treated as a debt extinguishment. The resulting loss on debt extinguishment is \$ 1,362 .

The Credit Agreement has a three-year term, and all outstanding borrowings are due upon maturity of the Credit Agreement on 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 Availability shortfall.

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. As of December 31, 2024, the effective interest rate on the ABL Facility was 7.33 %.

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.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

Future maturities of debt are projected as follows:

2025	\$ —
2026	—
2027	61,865
2028	—
2029	—
Total long-term debt, of which \$ 61,865 is noncurrent	<u>\$ 61,865</u>

#### 10. 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 eight 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	As of	As of
	December 31, 2024	December 31, 2023	December 31, 2022
<b>Operating Leases</b>			
Weighted average remaining lease term (years)	4.4	4.8	4.4
Weighted average discount rate	6.9 %	5.8 %	4.6 %
<b>Finance Leases</b>			
Weighted average remaining lease term (years)	5.7	6.7	7.6
Weighted average discount rate	7.0 %	6.9 %	6.9 %

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, 2024.

The components of lease expense are as follows:

	Year Ended	Year Ended	Year Ended
	December 31, 2024	December 31, 2023	December 31, 2022
Operating lease cost	\$ 1,614	\$ 1,284	\$ 1,133
<b>Finance lease cost:</b>			
Amortization of right-of-use assets	1,047	1,020	1,016
Interest on lease liabilities	626	673	735
Total finance lease cost	<u>\$ 1,673</u>	<u>\$ 1,693</u>	<u>\$ 1,751</u>

Short term lease expense was not significant for the twelve months ended December 31, 2024, 2023 and 2022.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

Supplemental cash flow information related to leases was as follows:

	Year Ended	Year Ended	Year Ended
	December 31, 2024	December 31, 2023	December 31, 2022
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	\$ 1,486	\$ 1,235	\$ 845
Operating cash flows for finance leases	626	673	735
Financing cash flows for finance leases	1,056	992	899
Right-of-use assets obtained in exchange for lease obligations:			
Operating Leases	2,765	1,509	—
Finance Leases	421	—	62

Supplemental balance sheet information related to leases was as follows:

	As of December 31, 2024	As of December 31, 2023
<b>Operating Leases</b>		
Operating lease right-of-use assets	\$ 5,727	\$ 4,324
Current lease liabilities	1,619	1,447
Operating lease liabilities	4,579	3,307
Total operating lease liabilities	<u>\$ 6,198</u>	<u>\$ 4,754</u>
<b>Finance Leases</b>		
Property and equipment, at cost	\$ 14,765	\$ 14,620
Accumulated depreciation	( 8,875 )	( 8,105 )
Property and equipment, net	<u>\$ 5,890</u>	<u>\$ 6,515</u>
Current lease liabilities	\$ 1,186	\$ 1,086
Finance lease liabilities	7,281	8,061
Total finance lease liabilities	<u>\$ 8,467</u>	<u>\$ 9,147</u>

Maturities of lease liabilities as of December 31, 2024 were as follows:

	<b>Operating Leases</b>	<b>Finance Leases</b>
2025	\$ 1,792	\$ 1,743
2026	1,591	1,775
2027	1,560	1,808
2028	961	1,842
2029	622	1,818
2030 and thereafter	746	1,339
Total payments	<u>\$ 7,272</u>	<u>\$ 10,325</u>
Less imputed interest	( 1,074 )	( 1,858 )
Total lease liabilities	<u>\$ 6,198</u>	<u>\$ 8,467</u>

## [Table of Contents](#)

# ATRICURE, INC. AND SUBSIDIARIES NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued) (In Thousands, Except Per Share Amounts)

## **11. COMMITMENTS AND CONTINGENCIES**

**License Agreements.** In 2024, we entered into an exclusive licensing agreement (Cooperation Agreement) to co-develop and commercialize equipment incorporating pulsed field ablation (PFA) technology. The Company paid cash of \$ 12,000 for the exclusive license of related intellectual property. The Cooperation Agreement also requires the Company to pay additional contingent consideration, settled in cash, with a maximum payout of \$ 28,000 if all milestones are achieved successfully within the ten-year term. The agreement also contains provisions requiring future royalty payments on devices incorporating co-developed technology upon commercialization. See Note 3 - Asset Acquisition for further information.

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. There was no royalty expense for the year ended December 31, 2024. Royalty expense was \$ 1,333 and \$ 3,264 for the years ended December 31, 2023 and 2022.

**Purchase Commitments.** The Company enters into various purchase arrangements related to its manufacturing and research and development activities. In the ordinary course of business, these agreements generally include terms that allow cancellation. In 2022, the Company entered into a clinical trial management agreement for the LeAAPs clinical trial. The terms of the agreement require 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. Payments made under this agreement were \$ 12,471 , \$ 5,636 , and \$ 1,539 for the years ended December 31, 2024, 2023, and 2022.

**Legal.** The Company may, from time to time, become a party to legal proceedings which are subject to many uncertainties. Litigation and administrative proceedings over patent and other intellectual property rights are common in our industry, as are requests for information related to interactions with medical professionals. Accordingly, the financial impact of ultimate resolutions from legal proceedings may not be known for extended periods of time and are not predictable with assurance. 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.

On February 7, 2025, representatives for former securityholders of SentreHEART, Inc. filed a complaint in the Delaware Court of Chancery naming the Company as a defendant. The Company acquired SentreHEART, Inc. pursuant to a merger agreement dated August 11, 2019. The merger agreement provides for contingent consideration to be paid upon achievement of specified PMA and CPT reimbursement milestones by specified dates. The complaint alleges breach of contract and a related claim for breach of the implied covenant of good faith and fair dealing resulting from the Company's alleged failure to use commercially reasonable efforts to obtain premarket approval from FDA for the LARIAT System. The complaint seeks damages in the amount of the original PMA and CPT reimbursement milestones of up to \$ 260,000 plus interest. The Company intends to vigorously defend this claim. A liability has not been recognized related to this matter because any potential loss is not currently probable or reasonably estimable.

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. 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 continued to pursue the case. During the third quarter of 2022, the relator filed a Fourth Amended Complaint, which alleged that the Company paid illegal kickbacks. In September 2024, the District Court granted the Company's motion to dismiss the Fourth Amended Complaint and denied the relator's request for leave to further amend the complaint.

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 2003 License Agreement, among the Company, Clinic and IDx (License Agreement). Clinic and IDx alleged that the Company did not include the revenues from sales of certain products in its royalty payments due under the License Agreement, and 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. In

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

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.

**12. 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 and primarily used by cardiothoracic and thoracic surgeons. 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:

	2024	2023	2022
Open ablation	\$ 123,647	\$ 105,287	\$ 86,119
Minimally invasive ablation	45,737	44,577	38,553
Pain management	61,844	49,199	39,974
Appendage management	151,588	134,481	112,555
<b>Total United States</b>	<b>\$ 382,816</b>	<b>\$ 333,544</b>	<b>\$ 277,201</b>

International revenue by product type is as follows:

	2024	2023	2022
Open ablation	\$ 34,693	\$ 31,483	\$ 26,809
Minimally invasive ablation	8,104	6,670	5,986
Pain management	5,624	2,013	558
Appendage management	34,070	25,535	19,825
<b>Total International</b>	<b>\$ 82,491</b>	<b>\$ 65,701</b>	<b>\$ 53,178</b>

Revenue attributed to customer geographic locations is as follows:

	2024	2023	2022
United States	\$ 382,816	\$ 333,544	\$ 277,201
Europe	49,874	38,469	30,428
Asia-Pacific	27,379	24,526	20,734
Other International	5,238	2,706	2,016
<b>Total International</b>	<b>\$ 82,491</b>	<b>\$ 65,701</b>	<b>\$ 53,178</b>
<b>Total Revenue</b>	<b>\$ 465,307</b>	<b>\$ 399,245</b>	<b>\$ 330,379</b>

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

**13. 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.

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

	2024	2023	2022
Current tax expense			
Federal	\$ —	\$ —	\$ —
State	450	389	142
Foreign	568	217	118
Total current tax expense	1,018	606	260
Deferred tax expense			
Federal	\$ (4,985)	\$ (2,972)	\$ (8,351)
State	(1,087)	(928)	(459)
Foreign	(1,379)	(3,671)	(1,636)
Change in valuation allowance	7,457	7,556	10,454
Total deferred tax expense	6	(15)	8
Total tax expense	<u>\$ 1,024</u>	<u>\$ 591</u>	<u>\$ 268</u>

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

	2024	2023
Deferred tax assets:		
Net operating loss carryforwards	\$ 116,679	\$ 129,744
Research and development credit carryforwards	18,181	15,171
Research and experimental expenditures	31,106	20,193
Equity compensation	11,738	10,599
Finance and operating lease liabilities	2,494	3,083
Inventories	3,325	2,822
Accruals and reserves	1,478	1,131
Property and equipment	1,052	219
Total deferred tax assets	<u>\$ 186,053</u>	<u>\$ 182,962</u>
Deferred tax liabilities:		
Intangible assets	(5,005)	(8,568)
Right-of-use assets	(1,749)	(2,160)
Other	(254)	(444)
Total deferred tax liabilities	<u>(7,008)</u>	<u>(11,172)</u>
Valuation allowance	<u>(179,027)</u>	<u>(171,766)</u>
Net deferred tax assets	<u><u>\$ 18</u></u>	<u><u>\$ 24</u></u>

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

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

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 \$ 216,156 which expire between 2025 and 2037 and \$ 175,758 which have no expiration. The Company has state and local net operating loss carryforwards of \$ 251,677 which expire between 2025 to 2044. 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 \$ 18,181 which expire between 2025 and 2044. Additionally, the Company has foreign net operating loss carryforwards of approximately \$ 79,662 which have no expiration.

The Company's 2024, 2023 and 2022 effective income tax rates differ from the federal statutory rate as follows:

	2024	2023	2022
Federal tax at statutory rate	21.0 % \$ ( 9,171 )	21.0 % \$ ( 6,268 )	21.0 % \$ ( 9,701 )
Permanent differences	( 6.7 ) 2,942	( 10.4 ) 3,092	( 1.9 ) 876
Valuation allowance	( 17.1 ) 7,457	( 25.3 ) 7,556	( 22.6 ) 10,454
State income taxes	1.7 ( 742 )	1.8 ( 539 )	0.7 ( 317 )
Federal R&D credit	6.9 ( 3,010 )	6.6 ( 1,966 )	4.2 ( 1,936 )
Foreign income taxes	( 1.3 ) 567	3.4 ( 1,012 )	( 0.5 ) 215
Federal deferred adjustments	( 6.8 ) 2,981	0.9 ( 272 )	( 1.5 ) 677
Effective tax rate	( 2.3 )% \$ 1,024	( 2.0 )% \$ 591	( 0.6 )% \$ 268

The Company's pre-tax book loss for domestic and international operations was \$ 36,983 and \$ 6,691 for 2024, \$ 17,822 and \$ 12,025 for 2023, and \$ 38,008 and \$ 8,190 for 2022.

The Company had undistributed earnings of foreign subsidiaries of approximately \$ 609 at December 31, 2024. The Company does not consider these earnings as permanently reinvested and has determined that no current and deferred taxes are required on such amounts.

The Company's federal, state, local and foreign tax returns are routinely subject to review by various taxing authorities. Federal income tax returns for periods beginning in 2021 are open for examination. Generally, state and foreign income tax returns for periods beginning in 2020 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. The Company has not accrued any interest and penalties related to unrecognized income tax benefits as a result of offsetting net operating losses. However, if required, the Company will recognize interest and penalties within income tax expense and within the related tax liability.

A reconciliation of the change in federal and state unrecognized tax benefits for 2024, 2023 and 2022 is presented below:

	2024	2023	2022
Balance at the beginning of the year	\$ 1,672	\$ 1,762	\$ 1,798
Increases (decreases) for prior year tax positions	( 158 )	( 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	<u>\$ 1,514</u>	<u>\$ 1,672</u>	<u>\$ 1,762</u>

The balance of unrecognized tax benefits at December 31, 2024, 2023 and 2022 includes \$ 1,514, \$ 1,672 and \$ 1,762 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, 2024.

## [Table of Contents](#)

# ATRICURE, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

(In Thousands, Except Per Share Amounts)

### **14. 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- or post-tax annual compensation up to specified maximums under the Internal Revenue Code. During the years ended December 31, 2024, 2023 and 2022, the Company matching contribution was 50 % on the first 8 % of employee contributions to the 401(k) Plan. The Company's matching contributions in 2024, 2023 and 2022 were \$ 5,477 , \$ 4,949 and \$ 4,447 . 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 2024, 2023 or 2022. The Company also provides retirement benefits for employees of its foreign subsidiaries. Total contributions to foreign retirement plans were \$ 702 , \$ 503 and \$ 446 in 2024, 2023 and 2022.

### **15. 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).

#### **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, performance share units 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, 2024, 4,087 shares of common stock had been reserved for issuance under the 2023 Plan and 2,480 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 2024, 2023 and 2022. The expense was allocated as follows:

	2024	2023	2022
Cost of revenue	\$ 2,323	\$ 1,817	\$ 1,868
Research and development expenses	6,951	5,802	4,544
Selling, general and administrative expenses	31,131	28,109	22,359
Total	<u><u>\$ 40,405</u></u>	<u><u>\$ 35,728</u></u>	<u><u>\$ 28,771</u></u>

**Performance Share Awards and Units.** The award agreements for the performance share awards (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 have two weighted performance targets: (i) the Company's compound annual revenue 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 outstanding as of December 31, 2024 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 since 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.

During 2024, the Compensation Committee approved the grant of Performance Share Units (PSUs) to the Company's President and Chief Executive Officer. The award agreement for the PSUs provides that each PSU that vests represents the right to receive one share of the Company's common stock at the end of the measurement periods. The number of shares that vest and are issued are based on the attainment of specified stock prices over three measurement periods over a four year period. PSUs vest in defined tranches on the last day of the measurement period, subject to a market vesting condition upon the simple moving average of the closing share price during the 60 consecutive calendar days immediately prior to

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

and including the measurement period date. PSUs that do not vest on the last day of the measurement period are forfeited. PSUs may vest following termination of service by reason of death or disability or change in control based on the performance criteria achieved as of the termination date or in connection with the change in control as specified in the award agreement.

Performance share activity at target attainment under the plans during 2024 was as follows:

	Number of Shares Outstanding	Weighted Average	
		Grant Date	Fair Value
<b>Performance Share Awards and Units</b>			
Outstanding at January 1, 2024	353	\$ 61.09	
Awarded	452	33.19	
Vested	( 113 )	92.00	
Forfeited	( 4 )	65.70	
Outstanding at December 31, 2024	688	\$ 37.63	

The total fair value of performance share awards vested during 2024, 2023 and 2022 was \$ 3,459 , \$ 4,955 and \$ 5,185 .

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 and performance share units with a market condition is estimated on the grant date using a Monte Carlo simulation and includes the following assumptions:

	2024	2023	2022
Stock price	\$ 36.28	\$ 38.81	\$ 39.94 - \$ 69.59
Expected term (years)	2.8 to 4.0	2.8	2.6 to 2.8
Company volatility	45.0 %	44.8 %	43.5 - 46.9 %
Market index average volatility <sup>†</sup>	92.7 %	91.0 %	90.3 - 92.0 %
Market index average correlation <sup>†</sup>	30.1 %	32.2 %	33.5 - 35.4 %
Risk-free interest rate	4.2 - 4.3 %	4.6 %	1.4 - 2.7 %
Dividend yield	0.0 %	0.0 %	0.0 %

<sup>†</sup> Not applicable to valuation of performance share units.

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 United States 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:

	2024	2023	2022
Weighted average estimated grant date fair value	\$ 33.19	\$ 46.16	\$ 91.05
Expense	11,356	11,417	8,731

As of December 31, 2024, \$ 14,230 of unrecognized compensation costs related to non-vested performance share awards and performance share units are expected to be recognized over a weighted-average period of 1.8 years.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(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 2024 was as follows:

<b>Restricted Stock Awards</b>	RSA	Weighted	
		Shares	Average
		Outstanding	Grant Date
Outstanding at January 1, 2024		982	\$ 46.43
Awarded		1,119	33.47
Released		( 429 )	50.18
Forfeited		( 39 )	41.37
Outstanding at December 31, 2024		1,633	\$ 36.69

The total fair value of restricted stock vested during 2024, 2023 and 2022 was \$ 14,732 , \$ 13,824 and \$ 23,242 .

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:

	2024	2023	2022
Weighted average estimated grant date fair value	\$ 33.47	\$ 39.21	\$ 63.14
Expense	26,975	21,797	17,621

As of December 31, 2024, \$ 37,067 of unrecognized compensation costs related to non-vested restricted stock awards and restricted stock units are expected to be recognized over a weighted-average period of 1.8 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 2024 was as follows:

<b>Time-Based Stock Options</b>	Number of Shares Outstanding	Weighted		Remaining Contractual Term	Aggregate Intrinsic Value
		Average	Exercise Price		
		Weighted Average	Price		
Outstanding at January 1, 2024	332	\$ 33.20			
Granted	—	—			
Exercised	( 57 )	17.93			
Forfeited	( 13 )	49.05			
Outstanding at December 31, 2024	262	\$ 35.71		3.3	\$ 1,693
Vested and expected to vest	262	\$ 35.71		3.3	\$ 1,693
Exercisable at December 31, 2024	262	\$ 35.71		3.3	\$ 1,693

The total intrinsic value of options exercised during the years ended December 31, 2024, 2023 and 2022 was \$ 711 , \$ 2,982 and \$ 5,565 . 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 2024, 2023 and 2022, \$ 1,022 , \$ 2,316 and \$ 1,816 in cash proceeds from the exercise of stock options were included in the Consolidated Statements of Cash Flows.

No options were granted in 2024, 2023, or 2022. Option expense was \$ 328 , \$ 765 , and \$ 1,012 for the years ended December 31, 2024, 2023 and 2022. As of December 31, 2024 there is no unrecognized compensation costs related to non-vested stock options.

[Table of Contents](#)

**ATRICURE, INC. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)**  
(In Thousands, Except Per Share Amounts)

**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, 2024, 519 shares are available for future issuance under the ESPP. ESPP expense was \$ 1,746 , \$ 1,749 and \$ 1,407 for the years ended December 31, 2024, 2023 and 2022.

**16. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)**

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

	2024	2023	2022
Total accumulated other comprehensive loss at beginning of period	\$ ( 993 )	\$ ( 4,096 )	\$ ( 948 )
<u>Unrealized (losses) gains on investments</u>			
Balance at beginning of period	\$ ( 800 )	\$ ( 3,698 )	\$ ( 887 )
Other comprehensive income (loss) before reclassifications	800	2,898	( 2,739 )
Amounts reclassified from accumulated other comprehensive loss to interest income	—	—	( 72 )
Balance at end of period	<u>\$ —</u>	<u>\$ ( 800 )</u>	<u>\$ ( 3,698 )</u>
<u>Foreign currency translation adjustment</u>			
Balance at beginning of period	\$ ( 193 )	\$ ( 398 )	\$ ( 61 )
Other comprehensive income (loss) before reclassifications	( 951 )	154	( 774 )
Amounts reclassified from accumulated other comprehensive loss to other income (expense)	109	51	437
Balance at end of period	<u>\$ ( 1,035 )</u>	<u>\$ ( 193 )</u>	<u>\$ ( 398 )</u>
Total accumulated other comprehensive loss at end of period	<u><u>\$ ( 1,035 )</u></u>	<u><u>\$ ( 993 )</u></u>	<u><u>\$ ( 4,096 )</u></u>

## [Table of Contents](#)

### **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, 2024 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, 2024. 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, 2024.

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.

## Table of Contents

### **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, 2024, 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, 2024, 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, 2024, of the Company and our report dated February 14, 2025, 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 14, 2025

**ITEM 9B. OTHER INFORMATION**

During the quarter ended December 31, 2024, 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).

**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 2025 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.

[Table of Contents](#)

**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, 2024.

Plan Category	(a)	(b)	(c)
Equity compensation plans approved by security holders <sup>(3)</sup>	2,582,656	\$ 35.71	2,479,998
Equity compensation plans not approved by security holders	—	—	—
<b>Total</b>	<b>2,582,656</b>	<b>\$ 35.71</b>	<b>2,479,998</b>

(1) Represents outstanding stock options, restricted stock awards and performance shares as of December 31, 2024.

(2) The weighted average exercise price is calculated without taking into account restricted stock and performance shares that will become issuable, without any cash consideration or other payment, as vesting requirements and/or performance goals 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:

<b>Exhibit No.</b>	<b>Description</b>
3.1	<a href="#">Restated Certificate of Incorporation (incorporated by reference to our Report on Form 8-K filed on May 14, 2024).</a>
3.2	<a href="#">Amended and Restated Bylaws (incorporated by reference to our Quarterly Report on Form 10-Q filed on July 31, 2024).</a>
4.1	<a href="#">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).</a>
10.1#	<a href="#">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).</a>
10.2#	<a href="#">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).</a>
10.3#	<a href="#">AtriCure, Inc. 2023 Stock Incentive Plan (Amended and Restated as of May 13, 2024) (incorporated by reference to our Current Report on Form 8-K filed on May 14, 2024).</a>
10.4#	<a href="#">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).</a>
10.5#	<a href="#">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).</a>
10.6	<a href="#">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).</a>
10.7	<a href="#">JPMorgan Credit Agreement, dated January 5, 2024 (incorporated by reference to our Current Report on Form 8-K filed on January 8, 2024).</a>
10.8#	<a href="#">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).</a>
10.9#	<a href="#">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).</a>
10.10#	<a href="#">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).</a>
10.11#	<a href="#">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).</a>
10.12#	<a href="#">Form of Performance Share Award Agreement for Awards Granted in 2023 (incorporated by reference to our Annual Report on Form 10-K filed on February 16, 2024).</a>
10.13#	<a href="#">Form of Performance Share Award Agreement for Awards Granted in 2024 (incorporated by reference to our Quarterly Report on Form 10-Q filed on May 2, 2024).</a>
10.14#	<a href="#">Form of Performance Stock Unit Award Agreement for Employees Granted in 2024 (incorporated by reference to our Quarterly Report on Form 10-Q filed on May 2, 2024).</a>
10.15#	<a href="#">Form of Restricted Stock Award Agreement under the Amended and Restated AtriCure, Inc. 2023 Stock Incentive Plan (incorporated by reference to our Annual Report on Form 10-K filed on February 16, 2024).</a>
10.16#	<a href="#">Form of Restricted Share Unit Award Agreement under the Amended and Restated AtriCure, Inc. 2023 Stock Incentive Plan (incorporated by reference to our Annual Report on Form 10-K filed on February 16, 2024).</a>
10.17#	<a href="#">AtriCure, Inc. Executive Leadership Severance Policy (incorporated by reference to our Annual Report on Form 10-K filed on February 17, 2022).</a>
10.18	<a href="#">Form of Indemnity Agreement with Directors and Executive Officers.</a>

Table of Contents

<u>Exhibit No.</u>	<u>Description</u>
14	<a href="#">Code of Conduct (incorporated by reference to our Annual Report on Form 10-K filed on February 22, 2023).</a>
19	<a href="#">Insider Trading Policy (incorporated by reference to our Annual Report on Form 10-K filed on February 16, 2024).</a>
21	<a href="#">Subsidiaries of the Registrant.</a>
23.1	<a href="#">Consent of Deloitte &amp; Touche LLP.</a>
31.1	<a href="#">Rule 13a-14(a) Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</a>
31.2	<a href="#">Rule 13a-14(a) Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 .</a>
32.1	<a href="#">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.</a>
32.2	<a href="#">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.</a>
97	<a href="#">Incentive Compensation Recoupment Policy (incorporated by reference to our Annual Report on Form 10-K filed on February 16, 2024).</a>
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.

**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 14, 2025

*/s/ Michael H. Carrel*

---

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

Date: February 14, 2025

*/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.

[Table of Contents](#)

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 14, 2025.

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

## INDEMNITY AGREEMENT

THIS INDEMNITY AGREEMENT (this "AGREEMENT") is made and effective as of this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between ATRICURE, INC., a Delaware corporation (the "COMPANY"), and \_\_\_\_\_ ("INDIVIDUAL").

### RECITALS

WHEREAS, Individual performs a valuable service to the Company in Individual's capacity as a member of the Board of Directors of the Company;

WHEREAS, the stockholders of the Company have adopted bylaws (the "BYLAWS") providing for the indemnification of the directors, officers, employees and other agents of the COMPANY, including persons serving at the request of the Company in such capacities with other corporations or enterprises, as authorized by the Delaware General Corporation Law, as amended (the "CODE");

WHEREAS, the Bylaws and the Code, by their non-exclusive nature, permit contracts between the Company and its directors, officers, employees and other agents with respect to indemnification of such persons; and

WHEREAS, in order to induce Individual to serve as a director of the Company, the Company has determined and agreed to enter into this Agreement with Individual;

NOW, THEREFORE, in consideration of Individual's continued service as a director after the date hereof, the parties hereto agree as follows:

### AGREEMENT

1. SERVICES TO THE COMPANY. Individual will serve, as a director, executive officer or other fiduciary of an affiliate of the Company (including any employee benefit plan of the Company) faithfully and to the best of his ability so long as he is duly elected and qualified in accordance with the provisions of the Bylaws or other applicable charter documents of the Company or such affiliate; provided, however, that Individual may at any time and for any reason resign from such position (subject to any contractual obligation that Individual may have assumed apart from this Agreement) and that the Company or any affiliate shall have no obligation under this Agreement to continue Individual in any such position.

2. INDEMNITY OF INDIVIDUAL. The Company hereby agrees to hold harmless and indemnify Individual to the fullest extent authorized or permitted by the provisions of the Bylaws and the Code, as the same may be amended from time to time (but only to the extent that such amendment permits the Company to provide broader indemnification rights than the Bylaws or the Code permitted prior to adoption of such amendment).

3. ADDITIONAL INDEMNITY. In addition to and not in limitation of the indemnification otherwise provided for herein, and subject only to the exclusions set forth in Section 4 hereof, the Company hereby further agrees to hold harmless and indemnify Individual against any and all expenses (including attorneys' fees), witness fees, damages, judgments, fines and amounts paid in settlement and any other amounts that Individual becomes legally obligated

to pay because of any claim or claims made against or by him in connection with any threatened, pending or completed action, suit or proceeding, whether civil, criminal, arbitral, administrative or investigative (including an action by or in the right of the Company) to which Individual is, was or at any time becomes a party, or is threatened to be made a party, by reason of the fact that Individual is, was or at any time becomes a director, officer, employee or other agent of Company, or is or was serving or at any time serves at the request of the Company as a director, officer, employee or other agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise.

4. LIMITATIONS ON ADDITIONAL INDEMNITY. No indemnity pursuant to Section 3 hereof shall be paid by the Company:

(a) on account of any claim against Individual solely for an accounting of profits made from the purchase or sale by Individual of securities of the Company pursuant to the provisions of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of any federal, state or local statutory law;

(b) on account of Individual's conduct that is established by a final judgment as knowingly fraudulent or deliberately dishonest or that constituted willful misconduct;

(c) on account of Individual's conduct that is established by a final judgment as constituting a breach of Individual's duty of loyalty to the Company or resulting in any personal profit or advantage to which Individual was not legally entitled;

(d) for which payment is actually made to Individual under a valid and collectible insurance policy or under a valid and enforceable indemnity clause, bylaw or agreement, except in respect of any excess beyond payment under such insurance, clause, bylaw or agreement;

(e) if indemnification is not lawful (and, in this respect, both the Company and Individual have been advised that the Securities and Exchange Commission believes that indemnification for liabilities arising under the federal securities laws is against public policy and is, therefore, unenforceable and that claims for indemnification should be submitted to appropriate courts for adjudication); or

(f) in connection with any proceeding (or part thereof) initiated by Individual, or any proceeding by Individual against the Company or its directors, officers, employees or other agents, unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the Company, (iii) such indemnification is provided by the Company, in its sole discretion, pursuant to the powers vested in the Company under the Code, or (iv) the proceeding is initiated pursuant to Section 9 hereof.

5. CONTINUATION OF INDEMNITY. All agreements and obligations of the Company contained herein shall continue during the period Individual is a director, officer, employee or other agent of the Company (or is or was serving at the request of the Company as a director, officer, employee or other agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise) and shall continue thereafter so long as Individual shall be subject to any possible claim or threatened, pending or completed action, suit or proceeding, whether civil, criminal, arbitral, administrative or investigative, by reason of the fact that Individual was serving in the capacity referred to herein.

6. PARTIAL INDEMNIFICATION. Individual shall be entitled under this Agreement to indemnification by the Company for a portion of the expenses (including attorneys' fees), witness fees, damages, judgments, fines and amounts paid in settlement and any

other amounts that Individual becomes legally obligated to pay in connection with any action, suit or proceeding referred to in Section 3 hereof even if not entitled hereunder to indemnification for the total amount thereof, and the Company shall indemnify Individual for the portion thereof to which Individual is entitled.

7. **NOTIFICATION AND DEFENSE OF CLAIM.** Not later than sixty (60) days after receipt by Individual of notice of the commencement of any action, suit or proceeding, Individual will, if a claim in respect thereof is to be made against the Company under this Agreement, notify the Company of the commencement thereof; but the omission so to notify the Company will not relieve it from any liability which it may have to Individual otherwise than under this Agreement. With respect to any such action, suit or proceeding as to which Individual notifies the Company of the commencement thereof:

(a) the Company will be entitled to participate therein at its own expense;

(b) except as otherwise provided below, the Company may, at its option and jointly with any other indemnifying party similarly notified and electing to assume such defense, assume the defense thereof, with counsel reasonably satisfactory to Individual. After notice from the Company to Individual of its election to assume the defense thereof, the Company will not be liable to Individual under this Agreement for any legal or other expenses subsequently incurred by Individual in connection with the defense thereof except for reasonable costs of investigation or otherwise as provided below. Individual shall have the right to employ separate counsel in such action, suit or proceeding but the fees and expenses of such counsel incurred after notice from the Company of its assumption of the defense thereof shall be at the expense of Individual unless (i) the employment of counsel by Individual has been authorized by the Company, (ii) Individual shall have reasonably concluded, and so notified the Company, that there is an actual conflict of interest between the Company and Individual in the conduct of the defense of such action or (iii) the Company shall not in fact have employed counsel to assume the defense of such action, in each of which cases the fees and expenses of Individual's separate counsel shall be at the expense of the Company. The Company shall not be entitled to assume the defense of any action, suit or proceeding brought by or on behalf of the Company or as to which Individual shall have made the conclusion provided for in clause (ii) above; and

(c) the Company shall not be liable to indemnify Individual under this Agreement for any amounts paid in settlement of any action or claim effected without its written consent, which shall not be unreasonably withheld. The Company shall be permitted to settle any action except that it shall not settle any action or claim in any manner which would impose any penalty or limitation on Individual without Individual's written consent, which may be given or withheld in Individual's sole discretion.

8. **EXPENSES.** The Company shall advance, prior to the final disposition of any proceeding, promptly following request therefor, all expenses incurred by Individual in connection with such proceeding upon receipt of an undertaking by or on behalf of Individual to repay said amounts if it shall be determined ultimately that Individual is not entitled to be indemnified under the provisions of this Agreement, the Bylaws, the Code or otherwise.

9. **ENFORCEMENT.** Any right to indemnification or advances granted by this Agreement to Individual shall be enforceable by or on behalf of Individual in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. Individual, in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting his claim. It shall be a defense to any action for which a claim for indemnification is made under Section 3 hereof (other than an action brought to enforce a claim for expenses pursuant to Section 8 hereof, provided that the required undertaking has

been tendered to the Company) that Individual is not entitled to indemnification because of the limitations set forth in Section 4 hereof. Neither the failure of the Company (including its Board of Directors or its stockholders) to have made a determination prior to the commencement of such enforcement action that indemnification of Individual is proper in the circumstances, nor an actual determination by the Company (including its Board of Directors or its stockholders) that such indemnification is improper shall be a defense to the action or create a presumption that Individual is not entitled to indemnification under this Agreement or otherwise.

10. **SUBROGATION.** In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Individual, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

11. **NON-EXCLUSIVITY OF RIGHTS.** The rights conferred on Individual by this Agreement shall not be exclusive of any other right which Individual may have or hereafter acquire under any statute, provision of the Company's Certificate of Incorporation or Bylaws, agreement, vote of stockholders or directors, or otherwise, both as to action in his official capacity and as to action in another capacity while holding office.

12. **SURVIVAL OF RIGHTS.**

(a) The rights conferred on Individual by this Agreement shall continue after Individual has ceased to be a director, officer, employee or other agent of the Company or to serve at the request of the Company as a director, officer, employee or other agent of another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise and shall inure to the benefit of Individual's heirs, executors and administrators.

(b) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

13. **SEPARABILITY.** Each of the provisions of this Agreement is a separate and distinct agreement and independent of the others, so that if any provision hereof shall be held to be invalid for any reason, such invalidity or unenforceability shall not affect the validity or enforceability of the other provisions hereof. Furthermore, if this Agreement shall be invalidated in its entirety on any ground, then the Company shall nevertheless indemnify Individual to the fullest extent provided by the Bylaws, the Code or any other applicable law.

14. **GOVERNING LAW.** This Agreement shall be interpreted and enforced in accordance with the laws of the State of Delaware.

15. **AMENDMENT AND TERMINATION.** No amendment, modification, termination or cancellation of this Agreement shall be effective unless in writing signed by both parties hereto.

16. **IDENTICAL COUNTERPARTS.** This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of

which together shall constitute but one and the same Agreement. Only one such counterpart need be produced to evidence the existence of this Agreement.

17. HEADINGS. The headings of the sections of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction hereof.

18. NOTICES. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given (i) upon delivery if delivered by hand to the party to whom such communication was directed or (ii) upon the third business day after the date on which such communication was mailed if mailed by certified or registered mail with postage prepaid:

- (a) If to Individual, at the address indicated on the signature page hereof;
- (b) If to the Company, to:

ATRICURE, INC., Attn: President  
7555 Innovation Way  
Mason, OH 45040;

or to such other address as may have been furnished to Individual by the Company.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on and as of the day and year first above written.

ATRICURE, INC.

By: \_\_\_\_\_  
Michael H. Carrel  
President and CEO

INDIVIDUAL

\_\_\_\_\_  
Name:

**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 PTE., Ltd., incorporated in Singapore

AtriCure Japan Co., Ltd., incorporated in Japan

**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. 333-281127, 333-273446, 333-273445, 333-266485, 333-240190, 333-232912, 333-226541, 333-226540, 333-219535, 333-216704, 333-199744, 333-173204, 333-165780, 333-157974 and 333-152013 on Form S-8 of our reports dated February 14, 2025, 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, 2024.

*/s/* Deloitte & Touche LLP

Cincinnati, Ohio  
February 14, 2025

**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 14, 2025

By: /s/ Michael H. Carrel

Michael H. Carrel

President and Chief Executive Officer

(Principal Executive Officer)

**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 14, 2025

By: /s/ Angela L. Wirick  
Angela L. Wirick  
Chief Financial Officer  
(Principal Accounting and Financial Officer)

**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, 2024 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 14, 2025

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.

**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, 2024 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 14, 2025

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.