

**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, 2021

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

State or other jurisdiction of
incorporation or organization

34-1940305

(I.R.S. Employer
Identification Number)

7555 Innovation Way, Mason, OH

(Address of principal executive offices)

45040

(Zip Code)

Registrant's telephone number including area code: (513) 755-4100

Securities Registered Pursuant to Section 12(b) of the Act:

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

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.

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, 2021, the last business day of the registrant's most recently completed second fiscal quarter as reported on the NASDAQ Global Market, was \$3,556.1 million.

Class

Common Stock, \$.001 par value

Outstanding February 14, 2022

46,026,734

DOCUMENTS INCORPORATED BY REFERENCE

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

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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. Forward-looking statements 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,” “seek,” “believes,” “see,” “should,” “will,” “would,” “could,” “can,” “may,” “future,” “predicts,” “target” and similar expressions and the negative versions thereof. Such statements are based only 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 include statements that address activities, events, circumstances or developments that AtriCure expects, believes or anticipates will or may occur in the future. Forward-looking statements are based on AtriCure’s experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure’s control. With respect to the forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. These forward-looking statements speak only as of the date of this Form 10-K. We undertake no, and hereby disclaim any and all, 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) and our corporate Facebook, YouTube, LinkedIn and Twitter accounts as channels of distribution of company information. The information we post through these channels may be deemed material. Accordingly, investors should monitor these channels, in addition to following our press releases, Securities and Exchange Commission, or SEC, filings and public conference calls and webcasts. The contents of our website and social media channels are not, however, a part of this report.

TRADEMARKS

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

MARKET AND INDUSTRY INFORMATION

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

All of the market data used in this Annual Report on Form 10-K involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. While we believe the estimated market position, market opportunity and market size information included in this Annual Report on Form 10-K is generally reliable, such information, which in part is derived from management’s estimates and beliefs, is inherently uncertain and imprecise and has not been verified by any independent source. Projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Item 1A. Risk Factors” of Part I of this Annual Report on Form 10-K and elsewhere in this Annual Report on Form 10-K. These and other factors could cause results to differ materially from those expressed in our estimates and beliefs and in the estimates prepared by independent parties.

PART I

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

ITEM 1. BUSINESS

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib), left atrial appendage (LAA) management and post-operative pain. According to the American Heart Association, Afib affects 1-2% of the population in the United States. It is the most common cardiac arrhythmia, or irregular heartbeat, encountered in clinical practice and results in high utilization of healthcare services by Afib patients. 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. Patients often progress from being in Afib intermittently (paroxysmal) to being in Afib continuously. The continuous Afib patient population includes persistent Afib, which lasts seven days to one year, and long-standing persistent Afib, which lasts longer than one year. Afib often occurs in conjunction with other cardiovascular diseases, including hypertension, congestive heart failure, left ventricular dysfunction, coronary artery disease and valvular disease.

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

Recovery from cardiothoracic and thoracic surgery can be complicated and painful. Many surgeons use multi-modal pain management strategies that include global and local pain management techniques or oral delivery of opioid and non-opioid pain medications. In an effort to improve patient recovery for those undergoing Afib surgery, we pursued an analgesia indication for our cryo ablation devices in 2015. Upon seeing the impact on patients and potential applications in a wide variety of surgical procedures, we developed our cryoICE cryoSPHERE® probe for pain management (Cryo Nerve Block). Our pain management solutions are used by physicians to freeze nerves during cardiothoracic or thoracic surgical procedures. This technique provides a long-lasting analgesic, allowing the patient's body to heal after surgery while the nerves regenerate and sensation is regained.

We believe that we are currently the market leader in the surgical treatment of Afib. Our Isolator® Synergy™ Ablation System is 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. The Epi-Sense® system is approved by FDA to treat patients with long-standing persistent Afib. All of our other ablation devices are cleared for sale in the United States under FDA 510(k) clearances, including our other radio frequency (RF) and cryoablation products, which are indicated for the ablation of cardiac tissue and/or the treatment of cardiac arrhythmias. In addition, certain of our cryoablation probes are cleared for managing pain by temporarily ablating peripheral nerves, or Cryo Nerve Block therapy. Further, certain cryoablation probes are approved for the ablation of the intercostal nerves to temporarily block pain in adolescents aged 12 or older. 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 is able to see the heart directly, with or without assistance from a camera, endoscope or other appropriate viewing technologies. In July 2021, we received 510(k) clearance for the new ENCOMPASS® clamp to ablate cardiac tissue during surgery. The LARIAT® system is cleared under the 510(k) process for soft tissue ligation. Several of our products are currently being studied to expand labeling claims or to support indications specifically for the treatment of Afib. Our Isolator Synergy clamps, Isolator Synergy pens, Coolrail® linear pen, cryoablation devices, cryoSPHERE® probe, certain products of the AtriClip LAA Exclusion System, COBRA Fusion® Ablation System, the Epi-Sense® system and LARIAT Suture Delivery Device bear the CE mark and may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. Our Isolator Synergy clamps, Isolator Synergy pens, Coolrail linear pen, cryoablation devices and certain products of the AtriClip LAA Exclusion System are available in select Asia-Pacific countries. 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 and in certain international markets, such as Germany, France, the United Kingdom and the Benelux region. We also sell our products to distributors who in turn sell our products to medical centers in other international markets. Our business is primarily transacted in U.S. Dollars with the exception of transactions with our European and United Kingdom customers, which are transacted primarily in the Euro or the British Pound.

Market Overview

Afib is the most commonly diagnosed sustained cardiac arrhythmia with approximately 1.2 million diagnoses annually in the United States, and affects approximately 33 million people worldwide. It is estimated that the incidence of Afib doubles with each decade of an adult's life. At age 40, remaining lifetime risk for Afib is 26% for men and 23% for women. Afib is an under-diagnosed condition due in large part to the fact that patients with Afib often have mild or no symptoms, and their Afib is often only diagnosed when they seek treatment for an associated condition, such as a structural heart disease or stroke. 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 in the United States as the population ages. We believe that these trends in the United States also apply globally.

Afib is a condition that doctors often find difficult to treat and, historically, there has been no widely accepted long-term cure for Afib. This difficulty is exacerbated with more serious forms of Afib, or persistent and long-standing persistent Afib. Over the past two decades, technology advancements have made surgical ablation more effective, repeatable and available to cardiac surgeons and electrophysiologists around the world. Societal guideline changes from the Society of Thoracic Surgeons (STS), Heart Rhythm Society (HRS) and American Association of Thoracic Surgery (AATS) now have Class I recommendations for surgical ablation, meaning that it is a "recommended" treatment, no longer just "reasonable", for patients who have structural heart disease and Afib. In addition, 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. 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 250,000 are potential candidates for surgical ablation using our products. Today, we estimate that approximately 25% to 35% of those candidates are being treated, but we believe many are not treated properly or fully. Of the population diagnosed with Afib, a large percentage of patients are symptomatic and do not respond to pharmacological therapy.

In addition, Afib is thought to be responsible for approximately 15% to 20% of the estimated 800,000 strokes that occur annually in the United States. According to the American Heart Association, the risk of stroke is five times higher in people with Afib. Studies have also suggested that 90% of clots that cause strokes in patients who have Afib originate from within the LAA. Recently, a very 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 believed to be significant. Because of the risk of stroke and the significant cost burden on the healthcare system, more and more surgeons are routinely addressing the LAA, both in patients who have Afib, but also 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 the AtriClip system represents a significant growth opportunity.

Many Afib patients seek relief solely from the symptoms of their Afib, including palpitations, breathlessness and drowsiness, without underlying structural heart disease. These patients are typically treated by an electrophysiologist using catheter ablation. Catheter ablation is considered a percutaneous procedure that does not require the opening of the chest and involves catheters inserted through a small puncture in the groin. It is estimated that after failing pharmacological therapy, 150,000 - 200,000 Afib patients are treated by catheter ablation every year in the U.S., a number that is expected to grow 10-15% annually. While the majority of paroxysmal Afib patients treated by catheter ablation tend to experience freedom from Afib, less than a third of long-standing persistent Afib patients treated by catheter ablation become free of Afib. Recent randomized, prospective, multi-center data shows that these long-standing persistent Afib patients can experience double the success rate by adding an ablation on the outside surface of the heart using AtriCure's EPI-Sense ablation system. Thus, we believe the EPI-Sense ablation system used as a minimally invasive or Hybrid AFTM therapy represents a significant growth opportunity for the Company.

Additionally, cardiothoracic and thoracic surgery involving an incision through the ribcage, typically referred to as thoracotomy access, can often times result in significant post-operative pain and longer hospital recovery times as patients refrain from mobilizing their chest near the incision site. Most surgeons will employ a multi-modal pain management protocol that includes global and local pain management techniques, including epidural delivery of medication directly around the spinal cord, intravenous or oral delivery of opioid and non-opioid pain medications. More focused, local techniques include syringe injections between vertebrates and Cryo Nerve Block, the use of cryo-energy to temporarily ablate peripheral nerves. Cryo Nerve Block can be delivered using our cryoICE cryoSPHERE® probe, which is specifically designed for Cryo Nerve Block, as well as our cryoICE CRYO2 probe, one of the same probes used to treat cardiac arrhythmias. Depending on the degree of invasiveness, physicians and their nursing staff will take advantage of multiple modes of pain management. It is estimated that each year roughly 140,000 cardiac and thoracic procedures are performed in the United States through thoracotomy access. Hospital recovery times can vary from two to eight days depending on the procedure, operative complications associated with the procedure, pain management protocol and other factors. In recent years, opioids have come under heavy scrutiny due to their potential for long-term dependency, overdose and possible death. The Center for Disease Control has reported over 49,000 deaths involving opioids in the United States in a single year, and 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 cardiothoracic surgical patients develops an unhealthy post-procedural addiction to prescription narcotics, making alternative, non-opioid pain management modalities, such as Cryo Nerve Block, increasingly important.

AtriCure Solutions and Products

Our products enable cardiothoracic surgeons to mimic all or portions of the cut and sew Maze procedure with faster, less invasive and less technically challenging approaches. We have completed, and continue to invest in, clinical studies for the use of our ablation and left atrial appendage management products to treat Afib. 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 heat tissue using radio frequency (RF) energy to create the tissue effects or those that cool tissue using cryo-thermal heat transfer to create the tissue effects. Our ablation products are part of platforms each consisting of disposable hand pieces which connect to compact RF power generation sources or the cryoICE BOX generator. We generally place this equipment with our direct customers and sell to our distributors.

Products for open and minimally invasive ablation:

- **Isolator Synergy Clamps.** Our Isolator Synergy System historically represented our primary product line and currently generates the majority of our ablation-related revenue. All of our clamps are single-use disposable RF products with jaws that close in a parallel fashion. We sell multiple configurations of our Isolator Synergy clamps with the primary difference being the form of the clamping jaws. The parallel closure compresses tissue and evacuates the blood and fluids from the energy pathway in order to make the ablation more effective. The Isolator Synergy System is currently being evaluated under the DEEP AF IDE pivotal trial and was previously studied under the ABLATE clinical trial supporting a pre-market approval (PMA) in 2011.
- **Multifunctional Pens and Linear Ablation Devices.** These devices are single-use disposable RF products that come in multiple configurations which have different contact lengths. The MAX Pen devices enable surgeons to evaluate cardiac arrhythmias, perform temporary cardiac pacing, sensing and stimulation and ablate cardiac tissue with the same device. Surgeons are able to readily toggle back and forth between these functions. The Coolrail device enables the user to make longer linear lines of ablation. Surgeons generally use one or more of our pen and linear devices in combination with Isolator Synergy clamps.

Products for open ablation:

- **cryoICE Cryoablation System.** The cryoICE cryoablation system is used in open ablation procedures and consists of the cryoICE BOX generator along with a single-use disposable probe. The primary differences between these cryoablation probes is the form of the distal end. The cryoICE devices enables the user to make linear ablations of varied lengths. Surgeons may utilize the cryoICE devices in combination with Isolator Synergy clamps or independently. 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. The cryoSPHERE probe and certain cryoICE devices are used to apply cryo-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. Studies are ongoing to characterize the effects of Cryo Nerve Block and further refine the procedure.

Products for minimally invasive ablation:

- **EPI-Sense Guided Coagulation System with VisiTrax Technology.** The EPI-Sense Guided Coagulation System with VisiTrax technology utilizes monopolar RF energy for the coagulation of tissue. The EPI-Sense device is a single-use disposable which is also capable of intraoperative cardiac signal sensing and recording when connected to an external recording device. In April 2021, we announced the PMA approval of the EPI-Sense System for treatment of symptomatic, drug-refractory, long-standing persistent atrial fibrillation, when augmented with an endocardial ablation catheter. The Convergent procedure, or Hybrid AF Therapy, is the only FDA-approved minimally invasive procedure to treat patients with long-standing persistent Afib.

Products for appendage management:

- **AtriClip System.** The AtriClip System includes an implantable device (AtriClip) coupled to a single-use disposable applier. The AtriClip is designed to exclude the left atrial appendage by mechanically clamping the appendage from the outside of the heart, eliminating blood flow between the left atrial appendage and the atrium while avoiding contact with circulating blood. We believe that the AtriClip system is potentially safer, more effective and easier to use than other available products and techniques for permanently excluding the left atrial appendage. These benefits compared to other techniques include permanent exclusion and electrical isolation of the appendage. The AtriClip device comes in a variety of lengths allowing the user to select a configuration specific to the patient and in two geometries (a rectangular configuration which encircles the targeted tissue and “V” shape which allows lateral access for improved usability). The appliers come in multiple forms tailored to specific procedural needs and with different deployment mechanisms. The AtriClip System includes various combinations of AtriClips and appliers.
- **LARIAT System.** The LARIAT System is a suture-based solution for soft-tissue closure and is compatible with a wide range of anatomical shapes. The LARIAT System includes a suture loop coupled to a single-use disposable applier. The loop is designed to exclude the left atrial appendage by mechanically cinching the appendage from the outside of the heart, eliminating blood flow between the left atrial appendage and the atrium while avoiding contact with circulating blood. The LARIAT System is currently being evaluated under the aMAZE™ IDE clinical trial.

In addition to the above product lines we also sell enabling technologies including our Lumitip™ dissectors, 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 (valve) instruments. The Lumitip dissector is used by surgeons to separate tissues to provide access to key anatomical structures that are targeted for ablation. Cardiac surgery instruments are used during certain surgical procedures for repair or replacement of heart valves.

Current Afib Treatment Alternatives

Physicians usually begin treating Afib patients with a variety of drugs intended to prevent blood clots, control heart rate or restore the heart to normal sinus rhythm. If a patient's Afib cannot be adequately controlled with drug therapy, doctors may perform one of several open-heart or minimally-invasive procedures that vary depending on the severity of the Afib symptoms and whether or not the patient suffers from other forms of heart disease. Often, Afib procedures are performed concomitantly with other cardiac treatments.

Alternative treatments to open-heart and minimally invasive procedures include:

- *Drug Therapy.* Pharmaceutical options called anti-arrhythmics are available to treat Afib. Depending on a patient's severity of the disease and heart condition, physicians typically administer these medications in a hospital setting with continuous monitoring. If the patient goes back into a normal rhythm, the physician will often prescribe a similar anti-arrhythmic drug to try to prevent a recurrence of Afib. The effectiveness of drug therapy varies based on the patient population and the drug being prescribed, among other factors. Often, pharmaceuticals to thin the blood (anti-coagulants) are prescribed due to the increased risk of stroke for patients who also have Afib.
- *Implantable Devices.* Implantable devices, such as defibrillators and pacemakers, can be effective in reducing the symptoms of Afib episodes, but neither device is intended to treat Afib. Patients may continue to experience the adverse effects of Afib as well as some of the symptoms and complications, including dizziness, fatigue, palpitations and stroke because the Afib continues.
- *Catheter Ablation.* Catheter ablation is a procedure that is typically performed by an electrophysiologist. The ablations are made from the inside of the heart using a flexible catheter. The heart is reached via a blood vessel, most commonly through the femoral vein. In proportion to the prevalence of Afib, less than 6% of patients receive catheter-based Afib treatments each year in the United States. The rate of treatment is even lower for long-standing persistent patients in which less than 1% receive catheter-based Afib treatments.

We do not promote our products specifically for Afib treatment in the United States, except for the Isolator Synergy System and the EPI-Sense System. The Isolator Synergy System may be promoted according to its FDA-approved indication for patients with persistent and long-standing persistent Afib undergoing certain open concomitant procedures, and the EPI-Sense System may be promoted according to its FDA-approved indication to treat patients with long-standing persistent Afib. During elective open-heart surgical procedures, such as bypass or valve surgery, cardiothoracic surgeons use our ablation systems to treat patients with a pre-existing history of Afib. Surgeons use our products to perform cardiac procedures that may vary depending on the length of time a patient has been diagnosed with Afib and whether the patient's Afib is intermittent (paroxysmal), or continuous (non-paroxysmal), which is typically further classified as persistent or long-standing persistent. Patients who have been diagnosed with Afib for a longer duration and have persistent or long-standing persistent forms of Afib generally receive more extensive ablation procedures than patients who have been diagnosed with Afib for a shorter duration or who have paroxysmal Afib. Additionally, during an open-concomitant procedure, physicians may use our AtriClip system to exclude the LAA.

For those patients with Afib who do not require an open-concomitant surgical procedure, surgeons have used our products for minimally invasive or hybrid Afib treatment procedures. These procedures have generally been performed through small incisions without the need to place patients on a heart-lung bypass machine. Additionally, during a minimally invasive surgical procedure, physicians may use our AtriClip system to exclude the LAA.

Certain physicians are combining various minimally invasive stand-alone epicardial ablation procedures (surgical ablation on the outside of the heart) with endocardial ablation and mapping techniques (catheter ablation from the inside of the heart). The combination of procedures are often referred to as "hybrid" or "multi-disciplinary" approaches, in that both surgical ablation and catheter ablations are performed. Sometimes, both procedures are performed on the same day or in the same hospital stay, where other times they are performed weeks or months apart. Patient health condition, physician preference, hospital logistics and procedural room availability influence the decision whether to perform hybrid ablations in a single or a staged setting. Physicians are reporting that they are performing these procedures utilizing certain of our products to primarily treat patients who have non-paroxysmal forms of Afib. The success of the hybrid procedure for long-standing persistent Afib patients was established with the results of the CONVERGE clinical study, the first trial of its kind for the sickest, most difficult to treat patients. We believe that the potential for hybrid Afib procedure adoption is our largest market opportunity.

Business Strategy

We are passionately focused on reducing the global Afib epidemic and healing the lives of those affected. Our strategy is to expand the treatment options for patients who suffer from Afib or have a high risk of stroke, or who suffer

from post-operative pain through the continued development of our technologies and expansion of our product offerings, global commercial expansion and clinical science investments. The key elements of our strategy include:

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

Invest 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.

Build Physician and Societal Relationships. We have formed consulting relationships with cardiothoracic surgeons, cardiologists, electrophysiologists and thoracic surgeons who work with us to develop and evaluate our products. Additionally, we have formed advisory boards made up of key opinion leaders in multiple specialties to oversee our training and clinical programs. We are building these relationships 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 four years, both the Society for Thoracic Surgeons and the Heart Rhythm Society have released new guidelines on the surgical treatment of Afib in both open-heart and minimally-invasive settings.

Provide Training and Education. We have recruited and trained sales and physician education professionals to effectively communicate to our customers the unique features and benefits of our technologies as they relate to their indications for use. Our highly trained professionals meet with physicians at institutions around the world to provide education and technical training on the features, benefits and safe-and-effective use of our products. With the approval of our Isolator Synergy System, we instituted a program to train providers on the use of the Isolator Synergy System to treat persistent and long-standing persistent Afib in patients undergoing open-heart surgery. More recently, with the approval of the EPI-Sense System, we began programs to train physicians on the use of the EPI-Sense Hybrid Coagulation system in a hybrid approach to treating patients with long-standing persistent Afib. 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.

Expand Adoption of Our Minimally Invasive Products. We believe that the catalysts for expanded adoption of our minimally invasive products include procedural advancements, such as the hybrid or multi-disciplinary procedure, continued innovation and product development and the publication of additional scientific evidence supporting the safety and efficacy of hybrid treatments for persistent and long-standing persistent Afib. We believe these efforts will help validate the successful, long-term use of our products for patients with persistent and long-standing persistent Afib. We believe that ongoing research activities, including prospective clinical trials, new procedural techniques and anticipated presentations and publications will create an increased demand for our minimally invasive 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 investment in clinical science, product innovation and strategic and financial considerations.

Clinical Trials

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:

CONVERGE. We conducted the CONVERGE IDE clinical trial to evaluate the safety and efficacy of the EPI-Sense Guided Coagulation System with VisiTrax technology to treat symptomatic persistent and long-standing persistent Afib patients who are refractory or intolerant to at least one Class I and/or III anti-arrhythmic drug. In April 2021, we announced the PMA approval of the EPI-Sense System for treatment of symptomatic, drug-refractory, long-standing persistent atrial fibrillation, when augmented with an endocardial ablation catheter. We believe the Convergent procedure, or Hybrid AF

therapy, provides the only compelling treatment option for a large and vastly underpenetrated population of Afib patients. The CONVERGE trial demonstrated superiority in the hybrid therapy arm compared to endocardial catheter ablation alone. In patients diagnosed with long-standing persistent Afib, the therapy arm showed a 29% absolute difference in efficacy at 12 months (78% relative improvement) and an absolute difference of 35% at 18 months (110% relative improvement). There was also a 33% absolute difference in Afib burden reduction in favor of the Hybrid AF therapy at 12 months, which increased to 37% at 18 months. In April 2021, we also received approval from FDA to conduct the CONVERGE Post Approval Study (PAS). This study allows for 325 patients to be enrolled at up to 50 sites.

aMAZE. In connection with our acquisition of SentreHEART in August 2019, we are conducting the aMAZE IDE clinical trial. aMAZE is an FDA-approved, prospective, multicenter, randomized controlled trial evaluating the LARIAT system for LAA exclusion adjunctive to pulmonary vein isolation (PVI) catheter ablation for the treatment of persistent and long-standing persistent Afib. The objective of the aMAZE IDE trial is to demonstrate that using the LARIAT system for LAA exclusion, plus a PVI catheter ablation, will lead to a reduced incidence of recurrent Afib compared to PVI alone, with a favorable safety profile. The aMAZE IDE trial provides enrollment of up to 600 patients at 65 sites with one-year follow up. Enrollment was completed in December 2019, and patient follow-up for twelve months post PVI catheter ablation required by the study protocol was completed in April 2021. In January 2020, we received approval under a continued access protocol (CAP) for additional patient enrollment of up to 85 patients at existing aMAZE IDE trial sites. In July 2021, the Company was informed that data from the aMAZE clinical trial did not achieve statistical superiority for the primary effectiveness endpoint. Specifically, while the trial met the safety endpoint, the trial did not meet the primary effectiveness endpoint. The Company has stopped enrollment in the aMAZE CAP, and is in the process of further analyzing aMAZE trial data and determining the next steps for the trial, PMA application and any future development activities.

ICE-AFIB. The ICE-AFIB clinical trial is designed to study the safety and efficacy of the cryoICE® system for persistent and long-standing persistent Afib treatment during concomitant on-pump cardiac surgery. The trial provides for enrollment of up to 150 patients at up to 20 sites in the United States. Enrollment began in January 2019 and remains ongoing.

DEEP AF Pivotal Study. The DEEP AF IDE pivotal trial evaluates 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 study began in 2014 and was paused during 2016-2017 due to our work to mitigate the risk related to esophageal injury during the procedure. We are committed to patient safety, and we worked collaboratively with FDA and obtained approval to resume enrollment in the trial in 2018 starting with 40 patients. All 40 patients have been enrolled and treated, and in July 2021, we received FDA approval to enroll the full cohort of 220 patients. We are evaluating next steps to resume enrollment.

CEASE AF. We are also pursuing a non-IDE trial in Europe to compare staged hybrid ablation treatment (minimally invasive surgical ablation procedure is first performed and the patient undergoes the intracardiac catheter procedure approximately 91-180 days later) versus catheter ablation alone. Enrollment began in November 2015. However, we have temporarily suspended enrollment to perform an interim data analysis.

Sales, Marketing and Medical Education

Our global sales and marketing efforts focus on educating physicians about our unique technologies and their technical benefits. We only promote our products for uses described in their labeling as cleared or approved by the relevant regulatory agencies. We 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 220 employees supporting approximately 57 sales territories. We select our sales personnel based on their expertise, sales 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 sales representatives focused on our direct markets, such as Germany, France, the United Kingdom and the Benelux region. We also maintain a network of distributors in Asia, South America and Canada, as well as certain countries in Europe, who market and sell our products. We continue to evaluate opportunities for further expansion into markets outside of the United States.

Competition

Our industry is competitive, subject to change and significantly affected by new product introductions and other activities of industry participants. Most of our competitors have greater financial and human resources than we do and have relationships with our target customers, as well as worldwide distribution channels that are more established and developed than ours. Our primary competitor in the cardiac surgery market is Medtronic, plc, who provides similar surgical ablation products to ours that have been adopted by physicians for the treatment of Afib and related conditions. 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 recently received FDA PMA approval for Hybrid AF Therapy. Several other companies offer intracardiac catheter devices that are commonly used by electrophysiologists to treat Afib. These catheter devices are FDA-approved to treat the paroxysmal and persistent forms of Afib, but they are not FDA indicated to treat long-standing persistent Afib. 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 believe that our products compare favorably against competing products during both open-heart and minimally invasive procedures, and that our products improve treatment outcomes for patients with non-paroxysmal forms of Afib when combined with intracardiac catheter devices. In addition to the cardiac surgery market, we also consider competition within the post-operative pain market. At this time, we are not aware of other companies in the United States who are pursuing cryothermic nerve block therapies for thoracic surgery. There are other companies outside of the United States who market their devices for a similar therapy.

To compete effectively, we strive to demonstrate that our products are an attractive alternative or addition to other treatments by differentiating our products on the basis of safety, efficacy, performance, ease of use, reputation, service and impact on healthcare economics. In addition, we invest heavily in training and education to ensure that our customers understand available devices, techniques and approaches for optimal treatment. We have encountered and expect to continue to encounter potential customers who prefer products offered by our competitors.

Third-Party Reimbursement

Payment for patient care 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, such as 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 LAA exclusion device (LAAM) 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 MS-DRG. We believe hospital reimbursement rates for sole therapy and concomitant therapy cardiac surgical ablation or LAAM are adequate to cover the cost of our products even when multiple procedures are performed.

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 in these situations.

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 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 reforms include initiatives like governmental reviews of reimbursement rate benchmarks, which may significantly reduce reimbursement for procedures using our medical devices or deny coverage for those procedures altogether. We are actively working to pursue market access in certain geographies, which includes applying for new reimbursement for therapies in which our devices are being used or pursuing specific reimbursement for utilization of our devices.

Government Regulation

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

US Regulation:

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

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

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

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

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

Pervasive and Continuing Regulation. There are numerous regulatory requirements that apply after a product is cleared or approved by FDA, including, but not limited to: annual establishment registration and product listing; current good manufacturing practice for devices, referred to as the Quality System Regulation (QSR); 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 QSR.

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

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

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

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

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.

While some harmonization of global regulations has occurred, requirements continue to differ significantly. In China, for example, the product must first have approval in the country of origin. In China, successful results from local product safety testing precedes submission of documentation to obtain approval. In addition, regulatory agencies and authorities can halt distribution within the country or otherwise take action in accordance with local laws.

Conformity Assessment Pathway. In the European Union, various directives regulate the design, manufacture and labeling of medical devices, and more stringent conformity assessment requirements have been put in place with the 2017

Medical Device Regulation, effective May 26, 2021. The method for assessing conformity varies depending on the type and class of the product, but typically involves a combination of quality system assessment and product conformity assessment by a third-party notified body, an independent and neutral institution appointed by a country to conduct the conformity assessment. This third-party assessment includes a review of documentation related to the device that may be as extensive as the documentation requirements that the United States FDA requires for higher risk products. The notified body also audits the manufacturer's quality system and performs a detailed review of the testing of the manufacturer's device. Successful completion of a conformity assessment procedure allows a manufacturer to issue a declaration of conformity with the requirements of the relevant directive and affix the CE mark to the device. Devices that bear the CE mark may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the medical device directives or 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.

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 patents 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 generally sourced from a single supplier, but alternatives to these 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 subassemblies. To date, we have not experienced significant delays in obtaining any of our components.

We regularly audit our suppliers for compliance with our quality system requirements, the QSR and/or applicable ISO standards. We are an FDA-registered medical device manufacturer and certified to ISO 13485:2016. 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, Europe, 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.

Consulting Relationships

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

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

Human Capital Management

Successful execution of our strategy is dependent on attracting, developing and retaining key employees and members of our management team. 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.

We had approximately 875 employees as of January 31, 2022. None of the employees were 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. At AtriCure, the employee experience is crucial to the ongoing success of the company. We work to provide a culture that augments the intrinsic rewards of our mission – one where employees feel valued and supported every day. We strive to engage with our employees across every level of the organization, celebrate their personal milestones and cultivate a sense of trust and transparency. Our culture provides opportunities for employees to feel a part of a community through paid leave for volunteering and individual recognition with “Heart of AtriCure” awards. Our employees have voted us as a Top Workplace six times in the past seven years, and our culture is regularly cited in our internal engagement surveys as a leading positive attribute of the Company. Our culture is a central asset to our Company.

Employee 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 performance management process as part of our annual review procedures.

Benefits for eligible U.S.-based employees include medical, dental and vision insurance; paid leave for both vacation and illness; a 401(k) 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.

Diversity, Equity, and Inclusion

We have an ongoing commitment to advancing Diversity, Equity, and Inclusion (DE&I) throughout our workplace and the communities in which we operate. By honoring the dignity of each person, we foster a culture of inclusion where everyone is welcome. We do this by embracing diverse voices and experiences, supporting programs and resources that build an authentic and respectful workplace and providing fair and equitable opportunities for each person to contribute meaningfully in both their work and their personal lives.

We believe our workforce needs to be diverse, and leverage the skills and perspectives of a variety of backgrounds and experiences. To attract a global workforce, we strive to embed a culture where employees can bring their whole selves to work. Our 2021 DE&I efforts were overseen internally by our Diversity, Equity and Inclusion leader and Chief Human Resources Officer who work to further advance our commitment and programs by fostering employee understanding, intentionality and measurable processes.

Training and Development

Employee training and development is a priority at AtriCure. We strive to create an environment where employees can realize their potential. We provide a range of training courses and online resources, as well as developmental coaching and mentoring. We have a regular monthly schedule of opportunities that allows employees to access both instructor-led classrooms and self-directed web-based courses. We are committed to identifying and developing the talents of our next-generation leaders, and conduct a comprehensive review of our leadership team on an annual basis. In that process, we review existing leaders and prospective leaders throughout the organization and determine next best steps for their future development. Developmental plans for employees can range from leadership support to technical skill-building.

We also work to ensure all employees have access to training that is consistent with the competencies that are measured as part of performance management: Delivering Results with Accountability, Initiative and Involvement, Teamwork and Support, and for those who manage people, Develop and Maintain High Performance Teams and Communication.

Safety for All Employees

We are committed to maintaining a safe workplace and promoting the well-being of all of our employees. 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. Effective January 1, 2021, our Ohio office locations are entirely tobacco- and nicotine-free, and to the extent permitted in the states of our other offices, those locations are also entirely tobacco- and nicotine-free.

Throughout the COVID-19 pandemic, our employees have been our first and foremost focus. We have implemented a number of long-term measures to provide a safe work environment for our employees. AtriCure has provided regular, mandatory training for all employees on COVID-19 protocols that are consistent with Center for Disease Control recommendations and state and country-specific guidelines. Such protocols and guidance is continually updated and made available to employees. We have also established decision-making protocols for contact tracing, return to work, and sanitization. Employees who are able to perform essential functions of their job remotely are allowed to do so. For those who need to be in a facility to perform their work, strict adherence to our COVID-19 protocols is required, including temperature checks, wearing face coverings, socially-distancing and other best practices surrounding hygiene to mitigate virus spread. We have not implemented any temporary or permanent reductions in headcount or to non-executive employee compensation.

Available Information

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

ITEM 1A. RISK FACTORS

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

Risk Factors Summary

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

COVID-19 Pandemic Risks

- COVID-19 pandemic may continue to affect the demand for our products, adversely impact our clinical trials and limit our ability to execute our business strategy.

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.
- Our success depends, in part, on the commercial success of the EPI-Sense device for the treatment of Afib following 2021 FDA pre-market approval of this product.
- We may be unable to promptly train sufficient numbers of physicians in the use of our products, resulting in slower market acceptance.
- Reliance on independent distributors to sell our products in some international markets could adversely impact our sales.

Industry Condition Risks

- Rising healthcare costs may result in efforts by government and private payors to contain or reduce healthcare spending, including for procedures that utilize our products.
- Adverse changes in payors' policies toward coverage and reimbursement for surgical procedures would harm our ability to promote and sell our products.
- International sales may decrease if coverage and adequate levels of reimbursement from governmental and third-party payors outside of the United States are not obtained and maintained.

Operational Risks

- Unfavorable publicity relating to our business and industry could negatively impact our operations.
- Reliance upon single and limited source third-party suppliers and logistics 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 any disruption at our manufacturing facility could harm our business.
- Our business could be negatively impacted if we fail to successfully integrate acquisitions.
- 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 most of them to prevent stroke and our inability to maintain or grow our business could be harmed. We may be subject to fines, injunctions and penalties if we are found to be promoting our products for unapproved or off-label uses.
- Modifications to our products may require new clearances or approvals by FDA; failure to obtain such clearances or approvals where required could result in a recall of the modified products and limitation on future sales until cleared or approved.
- If we or our third-party vendors fail to comply with extensive FDA regulations relating to the manufacturing of our products we may be subject to fines, injunctions and penalties.
- Any adverse finding, judgement, settlement or enforcement action against us as a result of the current *qui tam* lawsuit could negatively affect our business.
- The use of products we sell may result in injuries or other adverse events that lead to product liability claims.
- Our ability to compete in the marketplace could be affected if our intellectual property rights fail to provide meaningful commercial protection for our products.
- Litigation and administrative proceedings over patent and other intellectual property rights are common in our industry, and any litigation or claim against us may cause us to incur substantial costs.
- We are subject to various regulatory and other risks related to selling our products internationally which could harm our revenue.
- Any allegation or determination of wrongdoing under the Foreign Corrupt Practices Act or other anti-corruption laws could have a material adverse effect on our business.
- Compliance with European Union medical device regulation may limit our ability to sell our products in European markets.

Financial Risks

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

Common Stock Risks

- We may fail to achieve our publicly announced guidance about our business which could cause a decline in our stock price.
- Securities analysts may discontinue coverage for our common stock or issue negative 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.

COVID-19 Pandemic Risks

The outbreak of coronavirus (COVID-19) is materially and adversely affecting demand for our products and with prolonged delays, could continue to affect the demand for our products and impact our clinical trials, causing disruption to our business and negatively impacting our results of operations and financial condition.

We are subject to risks related to public health crises such as the global pandemic associated with COVID-19. The COVID-19 outbreak has negatively impacted and, in the future may negatively impact, our operations and revenues and overall financial condition by significantly decreasing the number of procedures performed with our products. The number of procedures performed during 2020 and periods of 2021 significantly decreased as health care organizations globally deferred non-emergent procedures to preserve resources and prioritized the treatment of patients with COVID-19. For example, in the United States, governmental authorities recommended, and in certain cases required, that elective, specialty and other procedures and appointments be suspended or canceled to avoid non-essential patient exposure to medical environments and potential infection with COVID-19 and to focus limited resources and personnel on the treatment of COVID-19. Although we observed a decrease in such measures in mid-2021, emergence of the Omicron variant in late 2021 led to such measures being reinstated in many areas globally. We expect that challenges resulting from these recommendations and requirements will likely continue for the duration of the pandemic, and may significantly reduce our revenue.

Our business was most impacted in the second, third and fourth quarters of 2020, in terms of the decline in patients and revenue from the shelter-in-place restrictions in a majority of countries and limitations on procedures in hospitals. We experienced sequential quarterly improvement beginning with the third quarter of 2020 as patient procedure volume trends and availability of healthcare resources improved as certain restrictions were lifted and limitations eased even though our third and fourth quarter 2020 revenue was below that in prior year periods. Despite these challenges, we experienced increased recovery in patient utilization and revenue during 2021; however, there continues to be variability as variants of the virus emerge and impact both procedure volumes and hospital staffing, which may significantly reduce our revenue while the pandemic continues.

Numerous state and local jurisdictions have imposed, and others in the future may impose, shelter-in-place orders, quarantines, vaccination requirements, executive orders and similar government orders and restrictions for their residents to control the spread of COVID-19. Such orders or restrictions have resulted in slowdowns and delays, travel restrictions and cancellation of events, among other effects. Other disruptions or potential disruptions include restrictions on our personnel and partners to travel and access customers for training and case support; delays in approvals by regulatory bodies; delays in product development efforts; and additional government requirements or other incremental mitigation efforts that may further impact our or our suppliers' capacity to manufacture, sell and support the use of our products. We expect that challenges resulting from these recommendations and requirements will likely continue for the duration of the pandemic, which is uncertain.

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. Key clinical trial activities, such as clinical trial site monitoring, subject visits and study procedures, may be interrupted due to limitations imposed or recommended by federal or state governments, trial sites, employers or others. We may also encounter interruption or delays in the operations of FDA or other regulatory authorities, which may impact review and approval timelines.

In addition, the COVID-19 pandemic may impact the trading price of shares of our common stock and could impact our ability to raise additional capital on a timely basis or at all. The COVID-19 pandemic continues to rapidly evolve. The extent to which COVID-19 may impact our business, including our nonclinical activities, clinical trials and financial condition, will depend on future developments, which are highly uncertain, such as the geographic spread of the disease (including new variants of COVID-19); the duration and severity of the pandemic, travel restrictions, business closures or business disruptions; the distribution and efficacy of vaccines and other treatments; U.S. and foreign government actions to respond to the reduction in global economic activity; and how quickly and to what extent normal economic and operating conditions can resume. To the extent the COVID-19 pandemic adversely affects our business and financial results, it may also have the effect of heightening many of the other risks set forth in this "Risk Factors" section.

Commercial Execution and Product Performance Risks

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

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

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

The medical device industry, including the market for the treatment of Afib, is highly competitive, is subject to rapid technological change and can be significantly affected by new product introductions and promotional activities. There is no assurance that our products will compete effectively against drugs, catheter-based ablation, implantable devices, other surgical ablation devices or other products or techniques to occlude the left atrial appendage. 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 the Afib and LAA management 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 and technical 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 which is dependent on the number of patients that experience Afib or stroke following treatment with our products and the number of patients that have serious complications resulting from ablations or LAA exclusion using our products. We cannot provide any assurance that the data collected during our clinical trials will be compelling to the medical community because it may not be scientifically meaningful, may identify unexpected safety concerns, and may not demonstrate that procedures utilizing our products are an attractive option when

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

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

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

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

These factors would affect the rate at which our products are adopted in the medical community.

Our success depends, in part, on the commercial success of the EPI-Sense device for the treatment of Afib following FDA pre-market approval of this product.

On April 29, 2021, we announced FDA approval of the EPI-Sense System to treat patients diagnosed with long-standing persistent Afib. Our success depends, in part, on the medical community's acceptance of this and other of our products in the United States. We expect that our future revenue will depend largely on the increasing acceptance by the medical community of our products as standard of care for treating Afib. The U.S. medical community's acceptance of the EPI-Sense System and other of our products will depend upon our ability to demonstrate long-term clinical performance and advantages 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 or procedures for the treatment of Afib, including but not limited to the EPI-Sense System, 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. Market acceptance could be delayed by lack of physician willingness to attend training sessions by the time required to complete this training, or by state or institutional restrictions on our ability to provide training. If we are unable to gain and/or maintain such support, training services and collaboration, our ability to grow the market for our products may be impacted and we may not be able to increase our revenue enough to achieve or sustain profitability, and our business and operating results may be seriously harmed.

Our success is dependent on our ability to train surgeons in the safe and effective use of our products. Restrictions on our ability to train surgeons, or unwillingness of surgeons to participate in such training, could reduce the market acceptance of our products.

Our research and development efforts and our marketing strategy depend heavily on obtaining support, physician training assistance and collaboration from experienced physicians at leading commercial and research hospitals, particularly in the U.S. and Europe. We deliver training on the safe and effective use of our products consistent with their FDA (or equivalent regulatory body) approved or cleared indications. While we train providers in the safe and effective use of our products, we do not train them to use any of our products specifically to treat Afib unless the product is FDA-approved specifically for the treatment of Afib. In order for surgeons to learn to use our products, they must attend training sessions to familiarize themselves with the products, and they must be committed to learning the technology. Further, surgeons must utilize the technology on a regular basis to ensure they maintain the skill set necessary to use the products. Continued market acceptance could be delayed by lack of surgeon willingness to attend training sessions, by the time

required to complete this training or by state or institutional restrictions on our ability to provide training. If we are unable to gain and/or maintain such support, training services and collaboration, our ability to market our products and, as a result, our financial condition, results of operations and cash flow, could be materially and adversely affected.

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

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

Industry Conditions Risks

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

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

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

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

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

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.

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 and our industry. This publicity could have a negative impact on our ability to attract and retain customers, our sales, 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 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 clinical studies, business, results of operations and financial condition, or cause other adverse effects, including a decline in the price of our stock.

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

We rely on single and limited source third-party vendors for the manufacture and sterilization of components used in our products. For example, we rely on one vendor to manufacture several of our RF generators, as well as separate vendors to manufacture our Epi-Sense System and related RF generator. It would be a time consuming and lengthy process to secure these products from an alternative supplier. We have significant concentrations with a limited number of vendors. We also rely on a third party to handle our warehousing and logistics functions for European and Middle Eastern 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;
- switching components may require product redesign and new submissions to FDA which could significantly delay production or, if FDA refuses to approve the changes, completely eliminate our ability to sell our products;
- 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 for any of the components used in our products or a replacement warehousing and logistics provider, if required, may not be accomplished quickly and could involve significant additional costs. Any interruption or delay in the supply of components, materials 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 conducted at a single location, and any disruption at our manufacturing facility could increase our expenses and decrease our revenue.

Our manufacturing operations are conducted at a single location in Ohio. While we take precautions at the Ohio location, we do not maintain a backup manufacturing facility, making us dependent on the current facility 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 facility 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.

We may enter into significant acquisitions in the future. Acquisitions have inherent uncertainties and involve risks and difficulties in integrating that may adversely affect our business, results of operations and financial condition.

All acquisitions involve inherent uncertainties, which may include, among other things, our ability to:

- successfully identify targets for acquisition;
- negotiate reasonable terms;
- properly perform due diligence and determine significant risks associated with a particular acquisition;
- properly evaluate target company management capabilities; and
- successfully transition and integrate the acquired company into our business and achieve the desired performance.

We may acquire businesses with unknown liabilities, contingent liabilities or internal control deficiencies. We have plans and procedures in place to conduct reviews of potential acquisition candidates for compliance with applicable regulations and laws prior to acquisition. Despite these efforts, realization of any of these liabilities or deficiencies may increase our expenses, adversely affect our financial position through the initiation, pendency or outcome of litigation or otherwise, or cause us to fail to meet our public financial reporting obligations.

We have consummated three significant acquisitions since 2013 and in the future may continue to invest a substantial amount of capital in acquisitions. We continue to evaluate potential acquisition opportunities to support, strengthen and grow our business. There can be no assurance that we will be able to locate suitable acquisition candidates, acquire possible acquisition candidates, acquire such candidates on commercially reasonable terms, or integrate acquired businesses successfully in the future. In addition, any governmental review or investigation of our proposed acquisitions, such as by the Federal Trade Commission, may impede, limit or prevent us from proceeding with an acquisition. Future acquisitions may require us to incur additional debt and contingent liabilities, which may adversely affect our business, results of operations and financial condition. The process of integrating acquired businesses into our existing operations may result in operating, contract and supply chain difficulties, such as the failure to retain customers or management personnel. Such difficulties may divert significant financial, operational and managerial resources from our existing operations and make it more difficult to achieve our operating and strategic objectives.

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

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

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

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. If any of these physicians end their relationship with us, our business could be negatively impacted. 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 other companies, we experience attempts to gain unauthorized access to our systems and information on a regular basis. 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; and we could sustain damage to our reputation and customer and employee relationships, suffer disruptions to our business and incur increased operating costs including costs to mitigate any damage caused and protect against future damage, and be exposed to additional regulatory scrutiny or penalties and to civil litigation and possible financial liability, any of which could have a material adverse effect on our business, operating margins, revenues and competitive position.

We also rely in part on information technology to store information, interface with customers, maintain financial accuracy, secure our data and accurately produce our financial statements. If our information technology systems do not effectively and securely collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies, human error or cyber incident, our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations could be materially impaired. Any such impairment could have a material adverse effect on our results of operations, financial condition and the timeliness with which we report our operating results.

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

We maintain insurance designed to provide coverage for ordinary risks associated with our operations and our ordinary indemnification obligations, which we believe to be customary for our industry. The coverage provided by such

insurance may not be adequate for claims we may make or may be contested by our insurance carriers. If our insurance is not adequate or available to pay liabilities associated with our operations, or if we are unable to purchase adequate insurance at reasonable rates in the future, our business, financial condition, results of operations or cash flows may be materially adversely impacted.

Legal & Compliance Risks

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

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

- the Federal Anti-Kickback Statute, which prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce either the referral of an individual, or furnishing or arranging for a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid Programs;
- the Federal False Claims Act, which prohibits submitting a false claim or causing the submission of a false claim to the government;
- Medicare laws and regulations that prescribe the requirements for coverage and payment, including the amount of such payment, and laws prohibiting false claims for reimbursement under Medicare and Medicaid;
- state consumer protection, fraud and business practice laws, including the California Consumer Privacy Act (“CCPA”), which became effective on January 1, 2020, which among other things, requires new 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 with respect to the collection, use, disclosure, transfer and storage of personal data that we may collect from our employees, consultants or in conjunction with clinical trials such as the General Data Protection Regulation in the European Union;
- the Federal Trade Commission Act and similar laws regulating advertising and consumer protection; and
- similar and other regulations outside the United States.

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

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

of hazardous substances that could cause us to incur substantial liabilities, including costs for investigation and remediation.

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

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

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

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

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

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

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

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

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

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

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

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

Any modification to a 510(k)-cleared device 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. FDA requires every medical device company to make the determination as to whether a 510(k) must be filed, but FDA may review any medical device company's decision. We have made modifications to our products and concluded that such modifications did not require us to submit a new or supplemental 510(k). FDA may not agree with our decisions regarding whether submissions were required.

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

If we or our third-party vendors fail to comply with extensive FDA regulations relating to the manufacturing of our products or any component part, 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 facility 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. Any interruption or delay in the manufacture of the product or any of its components could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products and could, therefore, have a material adverse effect on our business, financial condition and results of operations.

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

As previously disclosed, on December 11, 2017, the Company received a Civil Investigative Demand (CID) from the USDOJ stating that it was investigating the Company to determine whether the Company has violated the False Claims Act, relating to the promotion of certain medical devices related to the treatment of atrial fibrillation for off-label use and submitted or caused to be submitted false claims to certain federal and state health care programs for medically unnecessary healthcare services related to the treatment of Afib. The Company provided the USDOJ with documents and answers to the written interrogatories, and cooperated with the investigation. In 2021, USDOJ informed the Company that the investigation resulted from a lawsuit filed in Western District of North Carolina by a private individual, or "relator," under the federal False Claims Act, and that USDOJ was electing not to intervene in the lawsuit. The relator has indicated that he intends to pursue the lawsuit. The Company sought and obtained a transfer of the case to the Southern District of Ohio, and intends to defend itself vigorously. However, the Company cannot predict when the lawsuit will be resolved, the outcome of the lawsuit or its potential impact on the Company. While the Company believes its practices are lawful, there can be no assurance that the lawsuit will not result in findings of violations of federal laws that could lead to the imposition of damages, fines, penalties, restitution, other monetary liabilities, sanctions, settlements or changes to the Company's business practices or operations that could have a material adverse effect on the Company's business, financial condition or results of operations, or eliminate altogether the Company's ability to operate its business.

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

The use of our products may result in a variety of serious complications, including damage to the heart, nerves, internal bleeding, death, paralysis or other adverse events. Serious complications are commonly encountered in connection with surgical procedures. If products we sell are defectively designed, manufactured or labeled, contain inadequate warnings, contain defective components, are misused or are associated with serious injuries or deaths, we may become subject to costly litigation by our customers or their patients. We carry product liability insurance that is limited in scope and amount and may not be adequate to fully protect us against product liability claims. We could be required to pay damages that exceed our insurance coverage, and such amounts could be significant. Any product liability claim, with or without merit, could also result in an increase in our insurance rates or our inability to secure coverage on reasonable terms,

if at all. Even in the absence of a claim, our insurance rates may rise in the future. Any product liability claim, even a meritless or unsuccessful one, would be time-consuming and expensive to defend and could result in the diversion of our management's attention from our business and result in adverse publicity, withdrawal of clinical trial participants, injury to our reputation and loss of revenue. Any of these events could negatively affect our financial condition.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Violations of the FCPA or other foreign anti-corruption laws may result in restatements of, or irregularities in, our financial statements as well as severe criminal or civil sanctions, and we may be subject to other liabilities, which could

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

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

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

In May 2017, the EU adopted a new Medical Device Regulation (EU) 2017/745 (MDR), which repealed and replaced the MDD effective May 26, 2021. The MDR clearly envisages, among other things, stricter controls of medical devices, including strengthening of the conformity assessment procedures, increased expectations with respect to clinical data for devices and pre-market regulatory review of high-risk devices. The MDR also envisages greater control over notified bodies and their standards, increased transparency, more robust device vigilance requirements and clarification of the rules for clinical investigations. Under transitional provisions, medical devices with notified body certificates issued under the MDD prior to May 26, 2021 may continue to be placed on the market for the remaining validity of the certificate, until May 26, 2024 at the latest. After the expiry of any applicable transitional period, only devices that have been CE marked under the MDR may be placed on the market in the EU. If we fail to comply with the new MDR, we may not be able to continue to sell existing products in the EU or introduce new products for sale in the EU, either of which could materially harm our results of operations and financial condition.

Financial Risks

Our quarterly financial results are likely to fluctuate significantly because our sales prospects are uncertain.

Due to current worldwide economic conditions, natural disasters and other factors discussed in this “Risk Factors” section which may impact our sales results, our quarterly operating results are difficult to predict and may fluctuate significantly from quarter to quarter or from prior year to current year periods. These fluctuations may also affect our annual operating results and may cause those results to fluctuate unexpectedly from year to year.

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

Even though we reported net income of \$50,199 in 2021, we have a history of net losses, including, most recently, net losses of \$48,155 in 2020 and \$35,194 in 2019. As of December 31, 2021, we had an accumulated deficit of \$280,153.

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 will 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.

Our federal tax net operating loss (NOL) and general business credit carryforwards generated or acquired may expire or will be limited because we experienced an ownership change of more than 50 percent, which could result in greater future income tax expense and adversely impact future cash flows.

. Section 382 of the Internal Revenue Code of 1986 imposes limitations (Section 382 limitation) on a company’s ability to use net operating loss and general business credit carryforwards if a company experiences a more-than-50-percent

ownership change over a three-year testing period. The Company has not utilized any net operating losses that could be subject to an ownership change. Additionally, in connection with acquisitions, certain acquired NOLs are also subject to Section 382 limitation. The Section 382 limitations could limit the availability of our net operating loss and general business credit carryforwards to offset any future taxable income, which may increase our future income tax expense and adversely impact future cash flows. Federal net operating losses generated prior to 2018 are also subject to expiration under current IRS regulations. We have total federal income tax net operating loss carryforwards that began to expire in 2020 and federal and state research and development credit carryforwards that will begin to expire in 2022. We have available federal net operating loss and research and development credit carryforwards, subject to expiration of \$336,792 and \$11,269 as of December 31, 2021. We also have various state and foreign net operating losses and development credit carryforwards with varying expirations.

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

As a U.S. company doing business in international markets through subsidiaries, we are subject to foreign tax and intercompany transfer pricing laws, including those relating to the flow of funds between the parent and subsidiaries. If tax authorities challenge our intercompany transfer pricing, our operations may be negatively impacted and our effective tax rate may increase. Tax rates vary from country to country and if regulators determine that our profits in one jurisdiction should be increased, we might not be able to fully offset any associated increase in tax expense in the other jurisdiction, which would increase our effective tax rate. Additionally, the Organization for Economic Cooperation and Development, or OECD, has issued certain proposed guidelines regarding base erosion and profit sharing including minimum taxation. As these guidelines are formally adopted by the OECD, it is possible that separate taxing jurisdictions 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, 2021, we had \$234,781 in goodwill related to acquisitions, which represents the 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). The testing includes comparing the fair value of each reporting unit with its carrying value. We may have future impairment adjustments to our recorded goodwill. Any finding that the value of our goodwill has been impaired would require us to record an impairment charge which could materially reduce the value of our assets and reduce our net income or increase our net loss for the year in which the impairment charge occurs and increase our accumulated deficit.

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

To mitigate the risk of supply interruptions, we may choose to maintain additional inventory of our products or component parts. Managing our inventory levels is important to our cash position and results of operations and is challenging in the current economic environment. As we grow and expand our product offerings, managing our inventory levels becomes more difficult, particularly as we expand into new product areas and bring product enhancements to market. While we rely on our personnel and information technology systems for inventory management, our personnel and information technology systems may fail to adequately perform these functions or may experience an interruption. An excessive amount of inventory reduces our cash available for operations and may result in excess or obsolete materials. Conversely, inadequate inventory levels may make it difficult for us to meet customer product demand, resulting in decreased revenue. An inability to forecast future revenue or estimated life cycles of products may result in inventory-related charges that would negatively affect our gross margins and results of operations and increase our accumulated deficit.

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

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

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

Our Loan Agreement with Silicon Valley Bank (“SVB”) contains a minimum liquidity covenant, dividend restrictions and other customary terms and conditions. The occurrence of an event of default could result in an increase to the applicable interest rate by 3.0%, an acceleration of all obligations, an obligation to repay all obligations in full and a right by SVB to exercise all remedies available to them. If we are unable to pay those amounts, SVB could proceed against the collateral granted to it pursuant to the Loan Agreement, and we may in turn lose access to 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 projected hiring of sales professionals, continued increase of our market share and continued 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 which could adversely affect our operations and operating results. Furthermore, if we make downward revisions of our previously announced guidance, or if our publicly announced guidance of future operating results fails to meet expectations of securities analysts, investors, or other interested parties, the market price of our common stock could decline.

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

Several securities analysts provide research coverage of our common stock. Some analysts have already published statements that do not portray our technology, products or procedures using our products in a positive light and others may do so in the future. If we are unable to educate those who publicize such reports about the benefits we believe our business provides, or if one or more of the analysts who elects to cover us downgrades our stock, our stock price would likely decline rapidly. If one or more of these analysts ceases coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline. The trading market for our common stock may be affected in part by the research and reports that industry or financial analysts publish about us or our business. 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 may have and has had a history of substantial fluctuation due to a variety of factors, including, but not limited to those risk factors described in the “Risk Factors” section herein. These factors, some of which are not within our control, may cause the price of our stock to fluctuate substantially. We believe the

quarterly and annual comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

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

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

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

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

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

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

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

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

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

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

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

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 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, regulatory, engineering, product development, distribution and manufacturing functions. The headquarters facility is approximately 92,000 square feet. The Mason South facility is primarily used for warehousing and distribution activities and is approximately 40,000 square feet. During 2021, we purchased the Mason Manufacturing Building which is currently being renovated. It will be used for manufacturing and engineering activities and is approximately 37,000 square feet.
- Minnetonka, Minnesota – This location includes both administrative and product development space. The office is approximately 32,000 square feet.
- Pleasanton, California – This location is primarily used for product development activities and is approximately 6,000 square feet.
- Amsterdam, Netherlands – This location is primarily for the administration of our European subsidiaries and houses administrative functions for our global operations. The space is approximately 9,000 square feet.

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

ITEM 3. LEGAL PROCEEDINGS

We may from time to time become a party to additional legal proceedings that arise in the ordinary course of business. See Note 11 – Commitments and Contingencies to our Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

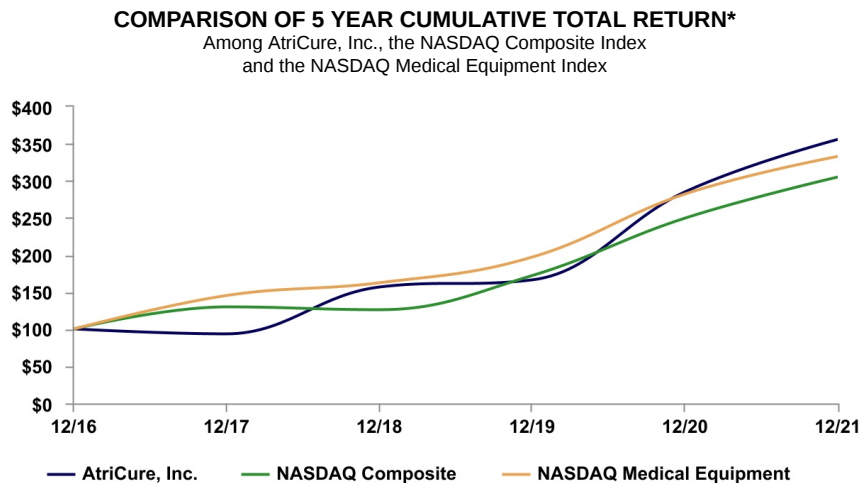
ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Common Stock Market Price

Our common stock is traded on the NASDAQ Global Market under the symbol “ATRC”. As of February 14, 2022, the closing price of our common stock on the NASDAQ Global Market was \$64.20 per share, and the number of stockholders of record was 75.

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 and the NASDAQ Medical Equipment Index for the period beginning on December 31, 2016 and ending on December 31, 2021.



*\$100 invested on 12/31/16 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

This graph assumes that \$100.00 was invested on December 31, 2016 in our common stock, the NASDAQ Composite Index and the NASDAQ Medical Equipment 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.

	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021
AtriCure, Inc.	\$ 93.20	\$ 156.36	\$ 166.12	\$ 284.47	\$ 355.29
NASDAQ Composite	\$ 129.64	\$ 125.96	\$ 172.17	\$ 249.51	\$ 304.85
NASDAQ Medical Equipment	\$ 145.08	\$ 161.91	\$ 196.50	\$ 281.91	\$ 332.54

ITEM 6. [RESERVED]

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

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

Changes from Prior Periodic Reports

In November 2020, the SEC issued Release No. 33-10890, "Management's Discussion and Analysis, Selected Financial Data and Supplementary Financial Information" which became fully effective on August 9, 2021. This release was adopted to modernize, simplify and enhance certain financial disclosure requirements in Regulation S-K. Specifically, the SEC eliminated the requirement for selected financial data, only requiring quarterly disclosure when there are retrospective changes affecting comprehensive income, and amending Management's Discussion and Analysis ("MD&A") to, among other things, eliminate the requirement of the contractual obligations table. Information on our contractual obligations is still disclosed in the narrative within Item 7 of Part II of this report.

These changes are required for any annual period subsequent to the effective date of August 9, 2021. As such, we have adopted these changes in this report.

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 2021 and 2020 items and year-to-year comparisons between 2021 and 2020. 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, 2020 compared to December 31, 2019

For a comparison of our results of operations for the years ended December 31, 2020 and December 31, 2019, 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, 2020, filed with the SEC on February 26, 2021.

Overview

We are a leading innovator in treatments for atrial fibrillation (Afib), left atrial appendage (LAA) management and post-operative pain. We believe that we are currently the market leader in the surgical treatment of Afib. Our Isolator[®] Synergy[™] Ablation System is 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. The Epi-Sense[®] System is approved by FDA to treat patients with long-standing persistent Afib. All of our other ablation devices are cleared for sale in the United States under FDA 510(k) clearances, including our other radio frequency (RF) and cryoablation products, which are indicated for the ablation of cardiac tissue and/or the treatment of cardiac arrhythmias. In addition, certain of our cryoablation probes are cleared for managing pain by temporarily ablating peripheral nerves, or Cryo Nerve Block therapy. Further, certain cryoablation probes are approved for the ablation of the intercostal nerves to temporarily block pain in adolescents aged 12 or older. 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 is able to see the heart directly, with or without assistance from a camera, endoscope or other appropriate viewing technologies. In July 2021, we received 510(k) clearance for the new ENCOMPASS[®] clamp to ablate cardiac tissue during surgery. The LARIAT[®] system is cleared under the 510(k) process for soft tissue ligation. Several of our products are currently being studied to expand labeling claims or to support indications specifically for the treatment of Afib. Our Isolator Synergy clamps, Isolator Synergy pens, Coolrail[®] linear pen, cryoablation devices, cryoSPHERE[®] probe, certain products of the AtriClip LAA Exclusion System, COBRA Fusion[®] Ablation System, the Epi-Sense[®] system and LARIAT Suture Delivery Device bear the CE mark and may be commercially distributed throughout the member states of the European Union and other countries that comply with or mirror the Medical Device Directive. Our Isolator Synergy clamps, Isolator Synergy pens, Coolrail linear pen, cryoablation devices and certain products of the AtriClip LAA Exclusion System are available in select Asia-Pacific countries. 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 and in certain international markets, such as Germany, France, the United Kingdom and the Benelux region. We also sell our products to distributors who in turn sell our products to medical centers in other international markets. Our business is primarily transacted in U.S.

Dollars with the exception of transactions with our European and United Kingdom customers, which are transacted primarily in the Euro or the British Pound.

Throughout 2020 and periods of 2021, we experienced a significant decrease in demand for our products as non-emergent procedures were being indeterminately deferred in order to preserve resources for COVID-19 patients and caregivers. While we saw many regions stabilize during 2021 with improvements in procedure volumes, there continues to be variability throughout our markets and uncertainty as variants of the virus emerge. For the year ended December 31, 2021, we reported annual revenues of \$274,329, an increase of 32.8% when compared to our prior year. We can make no assurance regarding any future level of demand for our products, and COVID-19 may adversely impact our results of operations and financial condition.

We are continuing to serve our customers while taking every precaution to provide a safe work environment for our employees and customers. Field-based sales and clinical employees continue to support cases, using technology to engage with customers in virtual settings when physical access is restricted. We are maintaining manufacturing and fulfillment operations to continue providing products to our customers. We continue to modify our remote working protocols and evaluate hybrid work models for our office-based employees, and we will take further actions in the best interests of our employees or as required by law.

Despite the challenging environment resulting from the pandemic, we continue to build on our strategic initiatives of product innovation, investing in clinical science and providing superior training and education.

PRODUCT INNOVATION. In July 2021, we received 510(k) clearance for the new ENCOMPASS[®] clamp, and we have initiated a limited product launch. The ENCOMPASS clamp marks innovation in our core open ablation market, and is expected to drive deeper penetration of cardiac surgery procedures. During 2021, our cryoSPHERE probe for Cryo Nerve Block was approved for CE marking.

CLINICAL SCIENCE. We continue to invest in studies to expand labeling claims, support indications for the treatment of Afib and other arrhythmias and stroke, and gather clinical data regarding our products.

In January 2021, we announced 510(k) clearance of additional labeling claims for Cryo Nerve Block therapy to include the treatment of adolescent patients (12-21 years of age).

In April 2021, we received 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 patient population. 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 hybrid 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 July 2021, we were informed that data from the aMAZE clinical trial did not achieve statistical superiority. Specifically, while the trial met the safety endpoint, the trial did not meet the primary efficacy endpoint. As a result, we identified indicators of impairment for the related IPR&D asset that represented an estimate of the fair value of the PMA that could have resulted from the aMAZE clinical trial and recorded an impairment charge of \$82,300. Additionally, the contingent consideration arrangements arising from the SentreHEART acquisition include success-based milestone payments. We assessed the projected probability of payment during the contractual achievement periods to be remote, resulting in no remaining fair value. The \$184,800 change in fair value of the contingent consideration was credited to operating expenses in 2021.

TRAINING. Our professional education and marketing teams have adapted to the pandemic by conducting online and mobile trainings for physicians and our sales team. These adaptations expanded our training methods and ensured invaluable access to continuing education and awareness of our products and related procedures. The recent FDA approval of the EPi-Sense System has enabled us to educate and train physicians on the benefits of Hybrid AF therapy in treating long-standing persistent Afib patients. The first of several training courses were offered beginning in June 2021.

Results of Operations
Year Ended December 31, 2021 compared to December 31, 2020

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,			
	2021		2020	
	Amount	% of Revenue	Amount	% of Revenue
	(dollars in thousands)			
Revenue	\$ 274,329	100.0 %	206,531	100.0 %
Cost of revenue	68,469	25.0	57,222	27.7
Gross profit	205,860	75.0	149,309	72.3
Operating (benefit) expenses:				
Research and development expenses	48,506	17.7	43,070	20.9
Selling, general and administrative expenses	204,649	74.6	150,829	73.0
Change in fair value of contingent consideration	(184,800)	(67.4)	(357)	(0.2)
Intangible asset impairment	82,300	30.0	—	—
Total operating expenses	150,655	54.9	193,542	93.7
Income (loss) from operations	55,205	20.1	(44,233)	(21.4)
Other income (expense), net	(4,818)	(1.8)	(3,808)	(1.8)
Income (loss) before income tax expense	50,387	18.4	(48,041)	(23.3)
Income tax expense	188	0.1	114	0.1
Net income (loss)	\$ 50,199	18.3 %	\$ (48,155)	(23.3)%

Revenue. Total revenue increased 32.8% (32.4% on a constant currency basis) reflecting a recovery of cardiac surgery procedure volumes during 2021 from the significant impact of COVID-19 during 2020 within each franchise and across our key markets globally, as well as further adoption of our products. Revenue from customers in the United States increased \$59,887, or 35.4%, across all product categories. Open ablation sales increased \$18,496, or 24.5%, primarily as a result of increased adoption of our Cryo Nerve Block therapy as well as volume increases in legacy products. Minimally invasive (MIS) ablation sales increased \$13,733, or 53.5%, reflecting the rebound in elective procedures in 2021, as well as Hybrid AF therapy procedure growth from the PMA approval of the EPI-Sense System in late April 2021. Appendage management sales increased \$27,587, or 41.2% due to volume growth in the AtriClip Flex-V® and AtriClip Pro-V® devices and other AtriClip products. International revenue increased \$7,911, or 21.2% (19.1% on a constant currency basis) throughout our major European and Asia markets. International revenues increased from both ablation and appendage management product sales due to a lessening impact of COVID-19 in 2021.

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

Cost of revenue and gross margin. Cost of revenue increased \$11,247 primarily reflecting revenue growth. The gross margin improvement of 270 basis points was driven by our return to normal production activity in 2021, leverage from higher revenue and favorable geographic and product mix, offset by inventory management charges related to the LARIAT system.

Research and development expenses. Research and development expenses increased \$5,436, or 12.6%. Personnel costs, including variable compensation, travel and share-based compensation, increased \$6,289 as a result of additional headcount as we continued to expand our product development, regulatory and clinical teams throughout 2021. Commencement of amortization of the technology asset related to the PMA resulting from the CONVERGE IDE clinical

trial drove increased depreciation and amortization expenses of \$1,221. Offsetting these increases were decreases in product development project costs of \$997 and clinical trial costs of \$806.

Selling, general and administrative expenses. Selling, general and administrative expenses increased \$53,820, or 35.7%. Personnel costs increased \$47,161 due to an increase in headcount, variable and share-based compensation, as well as a return in travel expenses. During 2021, quarantine and travel restrictions lifted, allowing for more live events. This, along with additional training activities upon the CONVERGE PMA approval in April 2021, drove an increase in training expenses of \$5,754, while tradeshow and marketing activities increased \$1,322 as compared to the prior year. Other expense drivers include a \$1,769 rise in operating costs, including organization meetings, facility expenses and dues and subscriptions; a \$1,776 increase in professional services fees, corporate costs and consulting fees; \$1,717 of additional legal expenses and a \$958 increase in product samples and demos expense. These increases were offset in part by a decrease of \$6,000 recorded in the prior year for the accrual of the value of the legal settlement with the former nContact stockholders. See Note 11 – Commitments and Contingencies in the Consolidated Financial Statements for further discussion of the nContact legal settlement.

Change in fair value of contingent consideration. The credit to operating expenses during the year ended December 31, 2021 reflects a change in the forecasted timing and probability of achievement of the regulatory and reimbursement milestones related to the aMAZE clinical trial. See Note 3 of the Consolidated Financial Statements for further discussion.

Impairment of intangible assets. During the year ended December 31, 2021, the Company recorded an impairment charge for the IPR&D asset associated with the aMAZE PMA. See Note 5 of the Consolidated Financial Statements for further discussion.

Other income and expense. Other income and expense consists primarily of net interest expense and foreign currency transaction gains and losses. Net interest expense was \$4,452 for 2021 and \$3,784 for 2020. Interest expense relates to our term loan and finance lease obligations, as well as the amortization of financing costs. Interest income reflects returns on our investments, including gains and losses on investments sold during the period. The increase in net interest expense was driven by lower interest income from lower investment yields and a lower investment balance.

Liquidity and Capital Resources

As of December 31, 2021, we had cash, cash equivalents and investments of \$223,428 and borrowing capacity of approximately \$28,750. All cash equivalents and investments and most of our operating cash are held in United States financial institutions. A minor portion of our cash is held in foreign banks to support our international operations. We had net working capital of \$139,631 and an accumulated deficit of \$280,153 as of December 31, 2021.

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. Our future capital requirements depend on a number of factors, including market acceptance of our current and future products; costs to develop and support our products, including professional training; future expenses to expand and support our sales and marketing efforts; operating and filing costs relating to changes in regulatory policies or laws; costs for clinical trials and to secure regulatory approval for new products; business integration costs; costs to prosecute, defend and enforce our intellectual property rights; and possible acquisitions and joint ventures. We continue to evaluate additional measures to maintain financial flexibility, and we will continue to closely monitor our liquidity and capital resources through the recovery from, and any further disruptions caused by COVID-19. Our principal cash requirements include costs of operations, capital expenditures, debt service costs and other contractual obligations.

Credit facility. Our Loan and Security Agreement with Silicon Valley Bank (SVB), as amended, (Loan Agreement), provides for a \$60,000 term loan, with an option to make available an additional \$30,000 in term loan borrowings, and a \$30,000 revolving line of credit. The Loan Agreement has a five year term, beginning November 1, 2021 and expires November 2026. The term loan accrues interest at the Prime Rate plus 1.25% and is subject to an additional 3.00% fee on the term loan principal amount at maturity. Principal payments are to be made ratably commencing 24 months after the inception of the loan through the loan's maturity date. At the option of the Company, the commencement of term loan principal payments may be extended an additional twelve months. As of December 31, 2021, our outstanding debt was \$60,000 and is classified as noncurrent. We had unused borrowing capacity of approximately \$28,750 under our revolving credit facility. For additional information on the terms and conditions, as well as applicable interest and fee payments, see Note 9 - Indebtedness.

Our corporate headquarters lease agreement requires a \$1,250 letter of credit which renews annually and remains outstanding as of December 31, 2021.

Capital Expenditures. As we continue to invest in our growth and our ability to better serve our customers, we recently purchased a building for additional manufacturing capacity. We have committed to funding the renovation and estimate the remaining costs of the construction project to be approximately \$3,800 over the next twelve months. We incur other capital expenditures on an ongoing basis.

Other Contractual Obligations. Our future obligations include both current and long-term obligations. We have operating and finance leases for our corporate offices, manufacturing and warehouse facilities, as well as computer equipment. Our finance leases consist of principal and interest payments related to our Mason, Ohio headquarters and computer equipment. As of December 31, 2021, we have current finance lease obligations of \$895 and long-term obligations of \$10,082. Our operating leases for office and warehouse space includes current obligations of \$861 and long-term obligations of \$4,068. For additional information, see Note 10 - Leases. We additionally maintain royalty agreements with terms that require royalty payments of 3% to 5% of specified product sales. See Note 11 - Commitments and Contingencies for information about the terms. We have contractual obligations for contingent consideration payments related to the SentreHEART acquisition. Subject to the terms and conditions of the SentreHEART merger agreement, such contingent consideration would be paid in AtriCure common stock and cash, up to a specified maximum number of shares. The SentreHEART milestones expire on December 31, 2023 and December 31, 2026. As of December 31, 2021, the estimated fair value of the contingent consideration is \$0. See Note 3 – Fair Value.

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

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

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

	Years Ended December 31,		Change
	2021	2020	
	(dollars in thousands)		
Net cash used in operating activities	\$ (13,780)	\$ (19,869)	6,089
Net cash provided by (used in) investing activities	23,504	(156,198)	179,702
Net cash (used in) provided by financing activities	(7,642)	189,392	(197,034)

Cash flows used in operating activities. Net cash used in operating activities decreased \$6,089 in 2021 as compared to 2020, largely reflecting recovery from the impact of COVID-19. While customer receivables increased from higher sales volumes, our investment in inventories increased from 2020 and our accounts payable balance grew as a result of increasing operating costs. Finally, based on higher variable compensation and the timing of payment, accrued liabilities increased over 2020.

Cash flows provided by investing activities. Net cash provided by investing activities increased by \$179,702 in 2021 as compared to 2020, reflecting a \$184,996 increase in net sales and maturities of available-for-sale securities, offset by an increase of \$4,494 for the investment in property and equipment to support our new product introductions and construction costs for the renovation of a recently purchased building to expand our manufacturing capabilities.

Cash flows used in financing activities. Net cash from financing activities decreased by \$197,034 in 2021 as compared to 2020, driven primarily by \$188,958 in net proceeds generated from the May 2020 public stock offering. Net cash used in equity compensation plan activity increased \$6,791 primarily due to the increase in shares repurchased for payment of taxes on stock awards and decrease in proceeds from stock option exercises. The remaining increase in cash used in financing activities was a result of an increase in payment of debt fees.

Inflation

Inflation has not had a significant impact on our historical operations, and we do not expect it to have a significant impact on our results of operations or financial condition in the foreseeable future. We have monitored and will continue to monitor the components of cost of revenue and operating expenses for the potential impact of inflation.

Critical Accounting Policies and Estimates

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

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

Revenue Recognition—Revenue is generated primarily 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 generally do not 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 use 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.

IPR&D Intangible Asset—In Process Research and Development (IPR&D) represents the value of acquired technology which has not yet reached technological feasibility. The primary basis for determining the technological feasibility is obtaining specific regulatory approvals. IPR&D is accounted for as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. Upon completion of the development project, the IPR&D will be converted to a technology asset and amortized over its estimated useful life. In July 2021, we were informed that data from the aMAZE clinical trial did not achieve statistical superiority. As a result, we identified impairment indicators for the IPR&D asset that represented an estimate of the fair value of the PMA that could result from the aMAZE clinical trial and recorded an impairment charge of \$82,300.

Share-Based Employee Compensation—We estimate the fair value of performance share awards with a performance condition 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.

Contingent Consideration—Contingent consideration arrangements obligate the Company to pay former shareholders of acquired companies certain amounts if specified future events occur or conditions are met, such as the achievement of certain regulatory or reimbursement milestones. We measure such liabilities using unobservable inputs by applying the probability-weighted scenario method. Various key assumptions, such as the probability and timing of achievement of the agreed milestones, are used in the determination of fair value of contingent consideration arrangements

and are not observable in the market. Subsequent revisions to key assumptions, which impact the estimated fair value of contingent consideration liabilities, are reflected in selling, general and administrative expenses.

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

Our estimate of the valuation allowance for deferred tax assets requires us to make 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 carryback 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 2 – Recent Accounting Pronouncements to our Consolidated Financial Statements for further information.

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. Interest on the term loan and revolving credit facility accrue at a variable rate based on the Prime Rate.

Products sold by AtriCure Europe, B.V. accounted for 9.9% and 10.9% of the Company's total revenue for 2021 and 2020. Since such revenue was primarily denominated in Euros or British Pounds, the Company is exposed to exchange rate fluctuations between the Euro and the U.S. Dollar and between the British Pound and the Euro. For 2021 and 2020, foreign currency transaction gains of \$387 and \$44 were recorded primarily in connection with settlements of the intercompany balances and invoices transacted in British Pounds. For revenue denominated in Euros, if there is an increase in the rate at which Euros are exchanged for U.S. Dollars, it will require more Euros to equal a specified amount of U.S. Dollars than before the rate increase. In such cases, the Company will receive less in U.S. Dollars than was received before the rate increase went into effect. The Euro to U.S. Dollar conversion rate fluctuations may impact our reported revenue and expenses. In other international markets, the Company denominates sales 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.

The Company invests its cash primarily in money market accounts, repurchase agreements, U.S. government and agency obligations, corporate bonds, asset-backed securities and commercial paper. Although the Company believes it has invested in a conservative manner, with cash 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.

Financial instruments that potentially subject the Company to credit risk consist of cash, cash equivalents and investments in corporate bonds. Certain of AtriCure's cash and cash equivalents exceed FDIC insured limits or are invested in money market accounts with investment banks that are not FDIC-insured. The Company places its cash and cash equivalents in what it believes to be credit-worthy financial institutions. As of December 31, 2021, \$43,404 of the cash and cash equivalents balance was in excess of FDIC limits.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

ATRICURE, INC. AND SUBSIDIARIES
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of AtriCure, Inc. and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive income (loss), stockholders' equity, and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes and the schedule listed in the Index at Item 15 (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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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 17, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

Critical Audit Matter

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

Valuation of Performance Share Awards with a Market Condition - Refer to Note 16 to the financial statements

Critical Audit Matter Description

Performance share awards (PSAs) granted in 2021 have two equally weighted performance targets measured at the end of the three-year performance period: (i) the Company's revenue compound annual growth rate, a performance condition; and (ii) relative total shareholder return (TSR), a market condition. The performance and market condition payouts are determined independently.

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

The determination of the fair value on the date of grant is affected by the Company and the peer group's stock price, as defined by the award agreement, at the beginning of the service period and grant date, the expected volatility of the Company and peer group's stock price over the performance period and the correlation coefficient of the daily returns for the Company and peer group over the performance period.

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

How the Critical Audit Matter Was Addressed in the Audit

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

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

/s/ Deloitte & Touche LLP

Cincinnati, Ohio
February 17, 2022

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

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2021 and 2020
(In Thousands, Except Per Share Amounts)

	2021	2020
Assets		
Current assets:		
Cash and cash equivalents	\$ 43,654	\$ 41,944
Short-term investments	75,436	202,274
Accounts receivable, less allowance for credit losses of \$1,096	33,021	23,146
Inventories	38,964	35,026
Prepaid and other current assets	5,001	4,347
Total current assets	196,076	306,737
Property and equipment, net	31,409	28,290
Operating lease right-of-use assets	4,761	1,914
Long-term investments	104,338	14,178
Intangible assets, net	42,992	128,199
Goodwill	234,781	234,781
Other noncurrent assets	955	440
Total Assets	<u>\$ 615,312</u>	<u>\$ 714,539</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 18,597	\$ 12,736
Accrued liabilities	36,092	27,984
Other current liabilities and current maturities of debt and leases	1,756	8,417
Total current liabilities	56,445	49,137
Long-term debt	59,741	53,435
Finance lease liabilities	10,082	10,969
Operating lease liabilities	4,068	1,180
Contingent consideration and other noncurrent liabilities	1,220	187,424
Total Liabilities	131,556	302,145
Commitments and contingencies (Note 11)		
Stockholders' Equity:		
Common stock, \$0.001 par value, 90,000 shares authorized; 46,016 and 45,346 issued and outstanding	46	45
Additional paid-in capital	764,811	742,389
Accumulated other comprehensive (loss) income	(948)	312
Accumulated deficit	(280,153)	(330,352)
Total Stockholders' Equity	483,756	412,394
Total Liabilities and Stockholders' Equity	<u>\$ 615,312</u>	<u>\$ 714,539</u>

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
YEARS ENDED DECEMBER 31, 2021, 2020 and 2019
(In Thousands, Except Per Share Amounts)

	2021	2020	2019
Revenue	\$ 274,329	\$ 206,531	\$ 230,807
Cost of revenue	68,469	57,222	60,472
Gross profit	205,860	149,309	170,335
Operating expenses (benefit):			
Research and development expenses	48,506	43,070	41,230
Selling, general and administrative expenses	204,649	150,829	167,143
Change in fair value of contingent consideration (Note 3)	(184,800)	(357)	(4,916)
Intangible asset impairment (Note 5)	82,300	—	—
Total operating expenses	150,655	193,542	203,457
Income (loss) from operations	55,205	(44,233)	(33,122)
Other income (expense):			
Interest expense	(4,918)	(4,885)	(4,111)
Interest income	466	1,101	2,398
Other	(366)	(24)	(160)
Income (loss) before income tax expense	50,387	(48,041)	(34,995)
Income tax expense	188	114	199
Net income (loss)	\$ 50,199	\$ (48,155)	\$ (35,194)
Net income (loss) per share:			
Basic net income (loss) per share	\$ 1.11	\$ (1.14)	\$ (0.94)
Diluted net income (loss) per share	\$ 1.09	\$ (1.14)	\$ (0.94)
Weighted average shares outstanding:			
Basic	45,066	42,125	37,589
Diluted	46,039	42,125	37,589
Comprehensive (loss) income:			
Unrealized (loss) gain on investments	\$ (941)	\$ (46)	\$ 137
Foreign currency translation adjustment	(319)	516	(96)
Other comprehensive (loss) income	(1,260)	470	41
Net income (loss)	50,199	(48,155)	(35,194)
Comprehensive income (loss), net of tax	\$ 48,939	\$ (47,685)	\$ (35,153)

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2021, 2020, and 2019
(In Thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
	Shares	Amount				
Balance—December 31, 2018	38,604	\$ 39	\$ 496,544	\$ (247,003)	\$ (199)	\$ 249,381
Issuance of common stock for SentreHEART acquisition	699	1	20,306	—	—	20,307
Issuance of common stock under equity incentive plans	248	—	(7,831)	—	—	(7,831)
Issuance of common stock under employee stock purchase plan	104	—	2,662	—	—	2,662
Share-based employee compensation expense	—	—	17,977	—	—	17,977
Other comprehensive income	—	—	—	—	41	41
Net loss	—	—	—	(35,194)	—	(35,194)
Balance—December 31, 2019	39,655	\$ 40	\$ 529,658	\$ (282,197)	\$ (158)	\$ 247,343
Issuance of common stock through public offering	4,574	5	188,953	—	—	188,958
Issuance of common stock under equity incentive plans	1,013	—	(2,194)	—	—	(2,194)
Issuance of common stock under employee stock purchase plan	104	—	3,330	—	—	3,330
Share-based employee compensation expense	—	—	22,642	—	—	22,642
Other comprehensive income	—	—	—	—	470	470
Net loss	—	—	—	(48,155)	—	(48,155)
Balance—December 31, 2020	45,346	\$ 45	\$ 742,389	\$ (330,352)	\$ 312	\$ 412,394
Issuance of common stock under equity incentive plans	589	1	(9,837)	—	—	(9,836)
Issuance of common stock under employee stock purchase plan	81	—	4,181	—	—	4,181
Share-based employee compensation expense	—	—	28,078	—	—	28,078
Other comprehensive loss	—	—	—	—	(1,260)	(1,260)
Net income	—	—	—	50,199	—	50,199
Balance—December 31, 2021	46,016	\$ 46	\$ 764,811	\$ (280,153)	\$ (948)	\$ 483,756

See accompanying notes to consolidated financial statements.

ATRICURE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2021, 2020 and 2019
(In Thousands)

	2021	2020	2019
Cash flows from operating activities:			
Net income (loss)	\$ 50,199	\$ (48,155)	\$ (35,194)
Adjustments to reconcile net income (loss) to net cash used in operating activities:			
Share-based compensation expense	28,078	22,642	17,977
Depreciation	7,534	7,866	7,423
Amortization of intangible assets	2,907	1,682	1,943
Amortization of deferred financing costs	759	509	375
Amortization (accretion) of investments	2,482	1,236	(922)
Change in fair value of contingent consideration	(184,800)	(357)	(4,916)
Intangible asset impairment	82,300	—	—
Other adjustments to income	1,607	1,347	2,118
Changes in operating assets and liabilities, net of amounts acquired:			
Accounts receivable	(10,087)	5,087	(3,201)
Inventories	(4,274)	(5,265)	(5,151)
Other current assets	(700)	(477)	(1,199)
Accounts payable	4,710	(1,560)	2,790
Accrued liabilities	8,271	(4,908)	3,108
Other noncurrent assets and liabilities	(2,766)	484	(962)
Net cash used in operating activities	(13,780)	(19,869)	(15,811)
Cash flows from investing activities:			
Purchases of available-for-sale securities	(173,105)	(227,045)	(73,249)
Sales and maturities of available-for-sale securities	206,362	75,306	100,485
Purchases of property and equipment	(9,753)	(5,259)	(12,182)
Proceeds from sale of property and equipment	—	—	39
Proceeds from capital grant	—	800	—
Cash paid for SentreHEART business combination	—	—	(17,240)
Net cash provided by (used in) investing activities	23,504	(156,198)	(2,147)
Cash flows from financing activities:			
Proceeds from sale of stock, net of offering costs of \$218	—	188,958	—
Proceeds from debt borrowings	5,000	—	20,000
Payments on debt and finance leases	(5,816)	(667)	(629)
Payment of debt fees	(1,171)	(35)	(329)
Proceeds from stock option exercises	8,175	10,835	1,202
Shares repurchased for payment of taxes on stock awards	(18,011)	(13,029)	(9,033)
Proceeds from issuance of common stock under employee stock purchase plan	4,181	3,330	2,662
Proceeds from economic incentive loan	—	—	500
Net cash (used in) provided by financing activities	(7,642)	189,392	14,373
Effect of exchange rate changes on cash and cash equivalents	(372)	136	(163)
Net increase (decrease) in cash and cash equivalents	1,710	13,461	(3,748)
Cash and cash equivalents—beginning of period	41,944	28,483	32,231
Cash and cash equivalents—end of period	\$ 43,654	\$ 41,944	\$ 28,483
Supplemental cash flow information:			
Cash paid for interest	\$ 4,223	\$ 4,366	\$ 3,719
Cash paid for income taxes, net of refunds	190	217	259
Non-cash investing and financing activities:			
Contingent consideration in business combinations	—	—	171,300
Stock issuance in business combinations	—	—	20,307
Accrued purchases of property and equipment	1,552	298	1,053
Assets obtained in exchange for finance lease obligations	—	22	270

See accompanying notes to consolidated financial statements.

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

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

Reclassification—During 2021, the Company changed the presentation of its consolidated statement of operations and comprehensive income (loss) to separately disclose the change in contingent consideration, previously reported in selling, general and administrative expenses. Amounts for comparative prior years have been reclassified to conform to the current period presentation. This reclassification had no impact on previously reported net loss or financial position.

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, money market funds and repurchase agreements on deposit 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—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. This generally occurs upon shipment of goods to customers. See Note 12 for further discussion on revenue.

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.

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 use all impact inventory reserves for excess, obsolete and expired products. An increase to inventory reserves results in a corresponding increase in cost of revenue. Inventories are written off against the reserve when they are physically disposed.

Property and Equipment—Property and equipment is stated at cost less accumulated depreciation. Depreciation is determined using the straight-line method over the estimated useful lives of assets (see Note 7). 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. The Company reviews property and equipment for impairment at least annually using its best estimates based on reasonable and supportable assumptions and expected future cash flows. Property and equipment impairment has not been significant.

The Company’s radiofrequency and cryo generators are generally placed with customers that use the Company’s disposable products. The estimated useful lives of generators are based on anticipated usage by customers and may change

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

in future periods with changes in usage or introduction of new technology. Depreciation related to generators and other capital equipment is recorded in cost of revenue.

Leases—The Company leases office, manufacturing and warehouse facilities and computer equipment 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 uses its incremental borrowing rate based on the information available at measurement. The Company also applies the short-term lease recognition exemption, recognizing lease payments in profit or loss, for leases that have a lease term of 12 months or less at commencement and do not include an option to extend the lease whose exercise is reasonably certain. For real estate and equipment leases, the Company accounts for the lease and non-lease components as a single lease component. Additionally, the portfolio approach is applied for the 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 both 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 for further discussion.

Intangible Assets—Intangible assets with determinable useful lives are amortized on a straight-line basis over the estimated periods benefited. Intangible assets include In Process Research and Development (IPR&D), representing the value of technology acquired in business combinations that has not yet reached technological feasibility. The primary basis for determining the technological feasibility is obtaining specific regulatory approvals. IPR&D is accounted for as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. Upon completion of the development project, IPR&D will be converted to a technology asset and amortized over its estimated useful life. Due to the nature of IPR&D projects, the Company may experience future delays or failures to obtain approvals or market clearances, or may discontinue or abandon the project, all of which may impact the estimated fair value of the IPR&D project. As a result, the Company may have a full or partial impairment charge related to the IPR&D, determined as the excess carrying value of the IPR&D asset over the estimated fair value.

The Company reviews intangible assets at least annually for impairment using its best estimates based on reasonable and supportable assumptions and projections. The Company performs impairment testing annually on October 1 or more often if impairment indicators are present.

Through April 2021, the IPR&D asset included an estimate of the fair value of the pre-market approval (PMA) that could result from the CONVERGE IDE and aMAZE IDE clinical trials. The Company received PMA approval for CONVERGE on April 28, 2021 and began amortizing the \$44,021 technology asset over an estimated fifteen year life. During the year ended December 31, 2021, the Company identified indicators of impairment for the IPR&D asset that represented an estimate of the fair value of the PMA that could result from the aMAZE clinical trial. As a result of the analysis performed, the Company recorded an impairment loss of \$82,300. See Note 3 for further discussion.

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.

Contingent Consideration and Other Noncurrent Liabilities—This balance consists of asset retirement obligations and other contractual obligations. The balance in prior periods also includes contingent consideration from business combinations, as well as deferred payroll taxes as a result of the Coronavirus Aid, Relief and Economic Security Act (CARES Act). The contingent consideration balance is included in noncurrent liabilities as any settlement is expected to be made primarily in shares of the Company's common stock pursuant to the SentreHEART merger agreement.

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.

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

The Company's estimate of the valuation allowance for deferred income tax assets requires significant estimates and judgments about future operating results. Deferred income tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more-likely-than-not that a deferred income tax asset will not be realized. Significant weight is given to evidence that can be objectively verified. The Company evaluates deferred income tax assets on an annual basis to determine if valuation allowances are required by considering all available evidence. Deferred income tax assets are realized by having sufficient future taxable income to allow the related tax benefits to reduce taxes otherwise payable. The sources of taxable income that may be available to realize the benefit of deferred income tax assets are future taxable income, future reversals of existing taxable temporary differences, taxable income in prior carryback 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 income (loss) to retained earnings due to its full valuation allowance.

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

	Year Ended December 31,		
	2021	2020	2019
Net income (loss) available to common stockholders	\$ 50,199	\$ (48,155)	\$ (35,194)
Basic weighted average common shares outstanding	45,066	42,125	37,589
Effect of dilutive securities	973	—	—
Diluted weighted average common shares outstanding	46,039	42,125	37,589
Basic net income (loss) per common share	\$ 1.11	\$ (1.14)	\$ (0.94)
Diluted net income (loss) per common share	\$ 1.09	\$ (1.14)	\$ (0.94)

The computation of diluted earnings per share in the year ended December 31, 2021 excludes 404 shares because the effect would be anti-dilutive. For the years ended December 31, 2020 and 2019, the number of shares calculated for basic net loss per share is also used for the diluted net loss per share calculation, and net loss per share excludes the effect of 2,301 and 3,623 shares because the effect would be anti-dilutive.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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Comprehensive Income (Loss) and Accumulated Other Comprehensive Income (Loss)—In addition to net income (loss), the comprehensive income (loss) includes foreign currency translation adjustments and unrealized gains (losses) on investments.

Accumulated other comprehensive (loss) income consisted of the following, net of tax:

	2021	2020	2019
Total accumulated other comprehensive income (loss) at beginning of period	\$ 312	\$ (158)	\$ (199)
<u>Unrealized gains (losses) on investments</u>			
Balance at beginning of period	\$ 54	\$ 100	\$ (37)
Other comprehensive (loss) income before reclassifications	(941)	(70)	137
Amounts reclassified from accumulated other comprehensive income (loss) to interest income	—	24	—
Balance at end of period	\$ (887)	\$ 54	\$ 100
<u>Foreign currency translation adjustment</u>			
Balance at beginning of period	\$ 258	\$ (258)	\$ (162)
Other comprehensive (loss) income before reclassifications	(768)	555	(277)
Amounts reclassified from accumulated other comprehensive income (loss) to other income (expense)	449	(39)	181
Balance at end of period	\$ (61)	\$ 258	\$ (258)
Total accumulated other comprehensive (loss) income at end of period	\$ (948)	\$ 312	\$ (158)

Research and Development Costs—Research and development costs are expensed as incurred. These 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 related regulatory activities, as well as amortization of technology assets.

Advertising Costs—The Company expenses advertising costs as incurred. Advertising expense was \$907, \$655 and \$635 during the years ended December 31, 2021, 2020 and 2019.

Share-Based Compensation—The Company recognizes share-based compensation expense for all share-based payment awards, including stock options, restricted stock awards, restricted stock units, performance share awards (PSAs) and stock purchases related to an employee stock purchase plan, based on estimated fair values. The value of the portion of an award that is ultimately expected to vest, net of estimated forfeitures, is recognized as expense over the service period. The Company estimates forfeitures at the time of grant and revises them, as necessary, in subsequent periods as actual forfeitures differ from those estimates.

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

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

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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The Company also has an employee stock purchase plan (ESPP) which is available to all eligible employees as defined by the plan document. 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 management to make 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.

Fair Value Disclosures—The Company classifies cash investments in U.S. government and agency obligations, accounts receivable, short-term other assets, accounts payable and accrued liabilities as Level 1. The carrying amounts of these assets and liabilities approximate their fair value due to their relatively short-term nature. Cash equivalents and investments in corporate bonds, repurchase agreements, 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 3 – Fair Value for further information on fair value measurements.

2. RECENT ACCOUNTING PRONOUNCEMENTS

In November 2021, the FASB issued Accounting Standard Update (ASU) 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance" (ASU 2021-10). This guidance requires business entities to provide certain disclosures when they have received government assistance and use a grant or contribution accounting model by analogy to other accounting guidance. The guidance becomes effective for annual reporting periods beginning after December 15, 2021. The Company does not expect the adoption of this standard to have a material impact on its consolidated financial statements and related disclosures.

3. FAIR VALUE

FASB ASC 820, "Fair Value Measurements and Disclosures" (ASC 820), 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.

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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, 2021:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	\$ —	\$ 38,360	\$ —	\$ 38,360
Commercial paper	—	22,978	—	22,978
Government and agency obligations	32,690	—	—	32,690
Corporate bonds	—	95,845	—	95,845
Asset-backed securities	—	28,261	—	28,261
Total assets	\$ 32,690	\$ 185,444	\$ —	\$ 218,134
Liabilities:				
Contingent consideration	\$ —	\$ —	\$ —	\$ —
Total liabilities	\$ —	\$ —	\$ —	\$ —

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, 2020:

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)	Total
Assets:				
Money market funds	\$ —	\$ 38,452	\$ —	\$ 38,452
Commercial paper	—	76,914	—	76,914
Government and agency obligations	45,399	—	—	45,399
Corporate bonds	—	73,730	—	73,730
Asset-backed securities	—	20,409	—	20,409
Total assets	\$ 45,399	\$ 209,505	\$ —	\$ 254,904
Liabilities:				
Contingent consideration	\$ —	\$ —	\$ 184,800	\$ 184,800
Total liabilities	\$ —	\$ —	\$ 184,800	\$ 184,800

There were no changes in the levels or methodology of measurement of financial assets and liabilities during the years ended December 31, 2021 and 2020.

Contingent Consideration. The Company's contingent consideration arrangements arising from the SentreHEART acquisition obligate the Company to pay certain defined amounts to former shareholders of SentreHEART if specified milestones are met related to the aMAZE IDE clinical trial, including PMA approval and reimbursement for the therapy involving SentreHEART's devices, as follows:

- **PMA Milestone** – up to \$140,000 upon receiving PMA from FDA for the LARIAT system with an approved indication allowing commercial distribution in the United States for the exclusion of the LAA for treatment of atrial fibrillation. The full contingent consideration amount is only received if PMA approval is received on or before December 31, 2022. The potential contingent consideration is reduced by 4.17% (or one-twenty-fourth) each month following December 2022 and is reduced to zero if the milestone is achieved after December 31, 2023. Payment of \$25,000 of

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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the PMA milestone may be accelerated upon achievement of an Interim Success Milestone as defined by the merger agreement.

- *CPT Reimbursement Milestone* – up to \$120,000 upon American Medical Association approval of a Medicare Category 1 Current Procedural Terminology (CPT) Code. The full contingent consideration amount is only received if approval of the CPT Code is received on or before December 31, 2025. The potential contingent consideration is reduced by 4.17% (or one-twenty-fourth) each month following December 2025 and is reduced to zero if the milestone is achieved after December 31, 2026.

Subject to the terms and conditions of the SentreHEART merger agreement, all contingent consideration would be paid in cash and stock at the discretion of the Company, subject to certain minimums and limitations, with the maximum number of shares that may be issued after closing limited to 6,322, representing total shares that may be issued in connection with the merger of 7,021 less 699 shares paid at closing. The maximum contingent consideration payable by AtriCure will not exceed \$260,000.

The Company measures contingent consideration liabilities using unobservable inputs by applying the probability-weighted scenario method, an income approach. Various key assumptions, such as the probability and timing of achievement of the agreed milestones, are significant to the determination of fair value of contingent consideration arrangements and are not observable in the market, thus representing a Level 3 measurement within the fair value hierarchy. Contingent consideration liabilities are periodically measured, with changes in the estimated fair value reflected in operating expenses. Changes in the discount rate, projected time until payment and probability of payment may result in materially different fair value measurements. A decrease in the discount rate would result in a higher fair value measurement, while a decrease in the probability of payment would result in a lower fair value measurement. Movement in the forecasted timing of achievement to later in the milestone periods would cause a decrease in the fair value measurement.

In July 2021, the Company was informed that data from the aMAZE clinical trial did not achieve statistical superiority. Specifically, while the trial met the safety endpoint, the trial did not meet the primary effectiveness endpoint. As the contingent consideration arrangements were success-based milestone payments, the fair value of the SentreHEART contingent consideration was remeasured as of September 30, 2021 resulting in a decrease in fair value due to changes in estimates related to both the forecasted timing and probability of achievement of the regulatory and reimbursement milestones. Accordingly, the Company recorded a credit to operating expenses of \$184,800 reflecting the change in fair value of the contingent consideration. The Company has assessed the projected probability of payment during the contractual achievement periods to be remote, resulting in no remaining fair value as of December 31, 2021.

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

	2021	2020	2019
Beginning Balance – January 1	\$ 184,800	\$ 185,157	\$ 18,773
Amounts acquired	\$ —	\$ —	\$ 171,300
Changes in fair value of contingent consideration	(184,800)	(357)	(4,916)
Ending Balance – December 31	\$ —	\$ 184,800	\$ 185,157

As of December 31, 2020, the terms of the contingent consideration arrangements under the nContact merger agreement expired.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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4. INVESTMENTS

Investments as of December 31, 2021 consisted of the following:

	Cost Basis	Unrealized Gains (Losses)	Fair Value
Corporate bonds	\$ 96,408	\$ (563)	\$ 95,845
Government and agency obligations	32,953	(263)	32,690
Commercial paper	22,978	—	22,978
Asset-backed securities	28,322	(61)	28,261
Total	\$ 180,661	\$ (887)	\$ 179,774

Investments as of December 31, 2020 consisted of the following:

	Cost Basis	Unrealized Gains (Losses)	Fair Value
Corporate bonds	\$ 73,702	\$ 28	\$ 73,730
Government and agency obligations	45,385	14	45,399
Commercial paper	76,914	—	76,914
Asset-backed securities	20,397	12	20,409
Total	\$ 216,398	\$ 54	\$ 216,452

The Company has not experienced any significant realized gains or losses on its investments in the years ended December 31, 2021, 2020 and 2019.

5. INTANGIBLE ASSETS AND GOODWILL

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

	Estimated Useful Life	2021		2020	
		Cost	Accumulated Amortization	Cost	Accumulated Amortization
Technology	5-15 years	\$ 55,712	\$ 12,720	\$ 11,691	\$ 9,813
IPR&D		—	—	126,321	—
Total		\$ 55,712	\$ 12,720	\$ 138,012	\$ 9,813

Following PMA approval of the Epi-Sense® System in the second quarter 2021, the related IPR&D asset with a value of \$44,021 was determined to have a finite useful life. The intangible asset is now included in technology assets and amortized over an estimated fifteen year life.

As a result of data from the aMAZE clinical trial not achieving statistical superiority, the Company identified indicators of impairment for the IPR&D asset that represents an estimate of the fair value of the PMA that could result from the aMAZE clinical trial. During the third quarter 2021, an impairment test was performed using estimates based on reasonable and supportable assumptions and projections of expected future cash flows, and the Company recorded an impairment charge of \$82,300, reducing the carrying value of the aMAZE IPR&D asset to \$0 as of December 31, 2021. This impairment charge is reflected as a component of operating expenses.

Amortization expense of intangible assets with definite lives, which excludes IPR&D assets, was \$2,907, \$1,682 and \$1,943 for the years ended December 31, 2021, 2020 and 2019.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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Future amortization expense is projected as follows:

2022	\$	3,653
2023		2,953
2024		2,953
2025		2,953
2026		2,953
2027 and thereafter		27,527
Total	\$	42,992

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, 2019	\$	234,781
Additions		—
Net carrying amount as of December 31, 2020		234,781
Additions		—
Net carrying amount as of December 31, 2021	\$	234,781

6. INVENTORIES

Inventories consisted of the following at December 31:

	2021	2020
Raw materials	\$ 12,653	\$ 11,966
Work in process	2,064	2,424
Finished goods	24,247	20,636
Inventories	\$ 38,964	\$ 35,026

7. PROPERTY AND EQUIPMENT

Property and equipment consisted of the following at December 31:

	Estimated Useful Life	2021	2020
Generators and related equipment	1 - 3 years	\$ 20,175	\$ 18,669
Building under finance lease	15 years	14,250	14,250
Computer, software and office equipment	3 - 5 years	7,762	8,045
Machinery and equipment	3 - 7 years	8,501	6,697
Furniture and fixtures	3 - 7 years	5,877	5,849
Leasehold improvements	5 - 15 years	8,727	8,645
Construction in progress	N/A	5,999	2,067
Land	N/A	1,006	502
Equipment under finance leases	3 - 5 years	380	409
Total		72,677	65,133
Less accumulated depreciation		(41,268)	(36,843)
Property and equipment, net		\$ 31,409	\$ 28,290

Property and equipment depreciation expense was \$7,534, \$7,866 and \$7,423 for the years ended December 31, 2021, 2020 and 2019. Depreciation related to generators and other capital equipment was \$2,327, \$2,503 and \$2,910 for

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fiscal years 2021, 2020 and 2019. As of December 31, 2021 and 2020, the net carrying value of generators and other capital equipment was \$3,637 and \$3,410.

8. ACCRUED LIABILITIES

Accrued liabilities consisted of the following at December 31:

	2021	2020
Accrued compensation and employee-related expenses	\$ 30,990	\$ 17,730
Sales returns and allowances	2,416	1,889
Accrued taxes and value-added taxes payable	1,452	1,256
Accrued royalties	754	703
Other accrued liabilities	470	406
Accrued legal settlement	10	6,000
Total	\$ 36,092	\$ 27,984

9. INDEBTEDNESS

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

Principal payments under the Loan Agreement are to be made ratably commencing 24 months after inception through the loan's maturity date. At the option of the Company, the commencement of term loan principal payments may be extended an additional twelve months. The term loan accrues interest at the Prime Rate plus 1.25% and is subject to an additional 3.00% fee on the term loan principal amount at maturity. The Company is accruing the 3.00% fee over the term of the Loan Agreement, with \$60 included in the outstanding loan balance as of December 31, 2021. Additionally, the unamortized original financing costs related to the term loan of \$319 are netted against the outstanding loan balance in the Consolidated Balance Sheets and are amortized ratably over the term of the Loan Agreement.

The revolving line of credit is subject to an annual facility fee of 0.20% of the revolving line of credit, and any borrowings thereunder bear interest at the Prime Rate. Borrowing availability under the revolving credit facility is based on the lesser of \$30,000 or a borrowing base calculation as defined by the Loan Agreement. As of December 31, 2021, the Company had no borrowings under the revolving credit facility and had borrowing availability of approximately \$28,750. Financing costs related to the revolving line of credit are included in other assets in the Consolidated Balance Sheets and amortized ratably over the twelve-month period of the annual fee.

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

Future maturities of long-term debt, excluding the term loan final fee, are projected as follows:

2022	\$	—
2023		3,333
2024		20,000
2025		20,000
2026		16,667
Total long-term debt, of which \$60,000 is noncurrent	\$	60,000

10. LEASES

The Company has operating and finance leases for offices, manufacturing and warehouse facilities and computer equipment. The Company's leases have remaining lease terms of one to nine years. Options to renew or extend leases

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beyond their initial term have been excluded from measurement of the ROU assets and lease liabilities for the majority of leases as exercise is not reasonably certain.

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

	As of December 31, 2021	As of December 31, 2020	As of December 31, 2019
Operating Leases			
Weighted average remaining lease term (years)	3.6	3.2	3.5
Weighted average discount rate	4.69 %	5.68 %	5.94 %
Finance leases			
Weighted average remaining lease term (years)	8.6	9.7	11.0
Weighted average discount rate	6.91 %	6.91 %	7.05 %

A letter of credit for \$1,250 was issued to the lessor of the Company's corporate headquarters building in October 2015, which is renewed annually and remains outstanding as of December 31, 2021.

The components of lease expense are as follows:

	Year Ended December 31, 2021	Year Ended December 31, 2020	Year Ended December 31, 2019
Operating lease cost	\$ 1,052	\$ 1,237	\$ 952
Finance lease cost:			
Amortization of right-of-use assets	1,019	1,050	998
Interest on lease liabilities	792	844	872
Total finance lease cost	<u>\$ 1,811</u>	<u>\$ 1,894</u>	<u>\$ 1,870</u>

Short term lease expense was not significant for the twelve months ended December 31, 2021, 2020 and 2019.

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31, 2021	Year Ended December 31, 2020	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities:			
Operating cash flows for operating leases	\$ 998	\$ 1,236	\$ 1,026
Operating cash flows for finance leases	620	844	872
Financing cash flows for finance leases	792	664	629
Right-of-use assets obtained in exchange for lease obligations:			
Operating Leases	3,752	1,421	1,884
Finance Leases	—	22	270
Operating lease right-of-use asset obtained in business combination	—	—	2,929
Early termination of operating lease	—	2,743	—

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Supplemental balance sheet information related to leases was as follows:

	As of December 31, 2021	As of December 31, 2020
Operating Leases		
Operating lease right-of-use assets	\$ 4,761	\$ 1,914
Other current liabilities and current maturities of debt and leases	861	927
Operating lease liabilities	4,068	1,180
Total operating lease liabilities	<u>\$ 4,929</u>	<u>\$ 2,107</u>
Finance Leases		
Property and equipment, at cost	\$ 14,607	\$ 14,659
Accumulated depreciation	(6,116)	(5,247)
Property and equipment, net	<u>\$ 8,491</u>	<u>\$ 9,412</u>
Other current liabilities and current maturities of debt and leases	\$ 895	\$ 823
Finance lease liabilities	10,082	10,969
Total finance lease liabilities	<u>\$ 10,977</u>	<u>\$ 11,792</u>

Maturities of lease liabilities as of December 31, 2021 were as follows:

	Operating Leases	Finance Leases
2022	\$ 861	\$ 1,629
2023	1,160	1,652
2024	1,164	1,674
2025	920	1,625
2026	592	1,657
2027 and thereafter	868	6,515
Total payments	<u>\$ 5,565</u>	<u>\$ 14,752</u>
Less imputed interest	(636)	(3,775)
Total	<u>\$ 4,929</u>	<u>\$ 10,977</u>

11. COMMITMENTS AND CONTINGENCIES

Royalty Agreements. The Company has royalty agreements in place with terms that include payments of 3% to 5% of specified product sales. One royalty agreement remains in effect through 2025, while the other agreement remains in effect until the later of 2023 or expiration of the underlying patents or patent applications. Parties to the royalty agreements have the right at any time to terminate the agreement immediately for cause. Royalty expense of \$3,124, \$2,596 and \$2,892 was recorded for the years ended December 31, 2021, 2020 and 2019.

Purchase Agreements. The Company enters into standard purchase agreements with suppliers in the ordinary course of business, generally with terms that allow cancellation. The Company is committed to funding renovation of a recently purchased building for additional manufacturing capacity. Approximately \$3,800 of construction costs remain committed and outstanding.

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

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

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

The Company acquired nContact Surgical, Inc. pursuant to a merger agreement dated October 4, 2015. The merger agreement provided for contingent consideration or “earnout” to be paid upon attaining specified regulatory approvals and clinical and revenue milestones. The merger agreement’s earnout provisions required the Company to deliver periodic earnout reports to a designated representative of former nContact stockholders. In response to the reports delivered in and after February 2018, the Company received letters from representatives purporting to serve as “earnout objection statements” (as that term is defined in the merger agreement) and claim that for purposes of determining the commercial milestone payment, the Company should be including revenues of certain additional items and products that the Company has not included in its earnout statements. During February 2021, the Company entered into a settlement agreement with the former nContact stockholders requiring payment of \$6,000. The Company recorded the \$6,000 settlement as a component of current liabilities as of December 31, 2020 as the underlying cause occurred prior to December 31, 2020, and has made substantially all of the settlement payment as of December 31, 2021.

12. REVENUE

Revenue is generated primarily from the sale of medical devices. The Company recognizes revenue in an amount that reflects the consideration the Company expects to be entitled to in exchange for those devices when control of promised devices is transferred to customers. At contract inception, the Company assesses the products promised in its contracts with customers and identifies a performance obligation for each promise to transfer to the customer a product that is distinct. The Company’s devices are distinct and represent performance obligations. These performance obligations are satisfied, and revenue is recognized at a point in time upon shipment or delivery of products. Sales of devices are categorized as follows: open ablation, minimally invasive ablation, appendage management and valve tools. Shipping and handling activities performed after control over products transfers to customers are considered activities to fulfill the promise to transfer the products rather than as separate promises to customers. Revenue includes shipping and handling revenue of \$1,354, \$1,192 and \$1,485 in the years ended December 31, 2021, 2020 and 2019.

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-shipment obligations to customers. No installation, calibration or testing of products is performed by the Company subsequent to shipment in order to render products operational.

Significant judgments and estimates involved in the Company’s recognition of revenue include the estimation of a provision for returns. The Company estimates the provision for sales returns and allowances using the expected value method based on historical experience and other factors that the Company believes could impact its expected returns, including defective or damaged products and invoice adjustments. In the normal course of business, the Company generally does not accept product returns unless a product is defective as manufactured. The Company does not provide customers with the right to a refund.

The Company expects to be entitled to the total consideration for the products ordered by customers as product pricing is fixed according to the terms of customer contracts and payment terms are short. Payment terms fall within the one-year guidance for the practical expedient which allows the Company to forgo adjustment of the promised amount of consideration for the effects of a significant financing component. The Company excludes taxes assessed by governmental authorities on revenue-producing transactions from the measurement of the transaction price.

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

Costs associated with product sales include commissions and royalties. Considering that product sales are performance obligations in contracts that are satisfied at a point in time, commission expense associated with product sales and royalties paid based on sales of certain products is incurred at that point in time rather than over time. Therefore, the Company applies the practical expedient and recognizes commissions and royalties as expense when incurred because the expense is incurred at a point in time and the amortization period is less than one year. Commissions are included in selling expense while royalties are included in cost of revenue.

See Note 17 for disaggregated revenue by geographic area and by product category.

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:

	2021	2020	2019
Current Tax Expense			
Federal	\$ —	\$ (26)	\$ (26)
State	42	78	34
Foreign	125	74	165
Total current tax expense	167	126	173
Deferred Tax Expense			
Federal	\$ (30,925)	\$ (10,304)	\$ (7,655)
State	(4,803)	(1,686)	(1,368)
Foreign	(826)	(3,071)	(1,690)
Change in valuation allowance	36,575	15,049	10,739
Total deferred tax expense	21	(12)	26
Total tax expense	\$ 188	\$ 114	\$ 199

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

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

	2021	2020
Deferred tax assets (liabilities):		
Net operating loss carryforwards	\$ 137,920	\$ 123,556
Research and development credit carryforwards	11,269	9,365
Intangible assets	(9,993)	(30,773)
Equity compensation	7,974	8,623
Finance and operating lease liabilities	3,700	3,164
Right-of-use assets	(3,037)	(2,547)
Deferred interest	2,469	1,598
Inventories	2,434	1,360
Accruals and reserves	1,755	3,739
Property and equipment	(1,264)	(1,315)
Other	587	293
Subtotal	153,814	117,063
Less valuation allowance	(153,798)	(117,025)
Total	\$ 16	\$ 38

The Company has federal net operating loss carryforwards of \$336,792 which expire between 2022 and 2037 and \$175,883 which has no expiration. The Company has state and local net operating loss carryforwards of \$344,968 which expire between 2022 to 2041. 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 \$11,269 which expire between 2022 and 2041. Additionally, the Company has foreign net operating loss carryforwards of approximately \$50,817 which expire between 2022 and 2027.

The Company's 2021, 2020 and 2019 effective income tax rates differ from the federal statutory rate as follows:

	2021		2020		2019	
Federal tax at statutory rate	21.0%	\$ 10,580	21.0%	\$ (10,088)	21.0%	\$ (6,950)
Permanent differences	(80.3)%	(40,439)	(2.5)%	1,214	1.2 %	(386)
Valuation allowance	72.6 %	36,575	(31.3)%	15,048	(32.4)%	10,739
State income taxes	(9.4)%	(4,760)	3.3%	(1,607)	4.0 %	(1,334)
Federal R&D credit	(3.7)%	(1,878)	2.0%	(985)	2.5%	(837)
Foreign income taxes	0.7%	344	4.5 %	(2,140)	(0.2)%	52
Federal deferred adjustments	(0.5)%	(234)	2.8 %	(1,328)	3.3 %	(1,085)
Effective tax rate	0.4 %	\$ 188	(0.2)%	\$ 114	(0.6)%	\$ 199

The Company's pre-tax book loss for domestic and international operations was \$55,666 and \$(5,279) for 2021, \$(43,218) and \$(4,823) for 2020 and \$(28,002) and \$(6,993) for 2019.

The Company had undistributed earnings of foreign subsidiaries of approximately \$290 at December 31, 2021. The Company does not consider these earnings as permanently reinvested and has determined that no current and deferred taxes are required on such amounts.

Federal, state and local tax returns of the Company are routinely subject to examination by various taxing authorities. Federal income tax returns for periods beginning in 2018 are open for examination. Generally, state and foreign income tax returns for periods beginning in 2017 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.

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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A reconciliation of the change in federal and state unrecognized tax benefits for 2021, 2020 and 2019 is presented below:

	2021	2020	2019
Balance at the beginning of the year	\$ 1,798	\$ 1,777	\$ 1,157
Increases (decreases) for prior year tax positions	—	21	620
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>\$ 1,798</u>	<u>\$ 1,798</u>	<u>\$ 1,777</u>

The increase in unrecognized tax benefits in 2019 relates to uncertain income tax benefits assumed pursuant to the SentreHEART acquisition. Historically, the Company has not incurred any significant interest and penalties for unrecognized income tax benefits as a result of offsetting net operating losses. Interest and penalties associated with uncertain income tax benefits assumed pursuant to the SentreHEART acquisition were recognized as part of purchase accounting. The amount is not significant.

The balance of unrecognized tax benefits at December 31, 2021, 2020 and 2019 includes \$1,798, \$1,798 and \$1,777 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, 2021.

14. CONCENTRATIONS

During 2021, 2020 and 2019, approximately 10.5%, 10.8% and 12.0% of the Company's total net revenue was derived from its top ten customers. During 2021, 2020 and 2019 no individual customer accounted for more than 10% of the Company's revenue.

As of December 31, 2021 and 2020, 16.0% and 13.0% of the Company's total accounts receivable balance was derived from its top ten customers. No individual customer accounted for more than 10% of the Company's accounts receivable as of December 31, 2021 and 2020.

The Company maintains cash and cash equivalents balances at financial institutions which at times exceed FDIC limits. As of December 31, 2021, \$43,404 of the cash and cash equivalents balance was in excess of the FDIC limits.

15. EMPLOYEE BENEFIT PLANS

The Company sponsors the AtriCure, Inc. 401(k) Plan (401(k) Plan), a defined contribution plan covering substantially all U.S. employees of the Company. Eligible employees may contribute pre-tax annual compensation up to specified maximums under the Internal Revenue Code. During the year ended December 31, 2021, 2020 and 2019, the Company made matching contributions of 50% on the first 6% of employee contributions to the 401(k) Plan. The Company's matching contributions in 2021, 2020 and 2019 were \$2,651, \$2,237 and \$1,915. 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 2021, 2020 or 2019. The Company also provides retirement benefits for employees of AtriCure Europe B.V. and other foreign subsidiaries. Total contributions to retirement plans for these employees were \$349, \$244 and \$248 in 2021, 2020 and 2019.

16. EQUITY COMPENSATION PLANS

The Company has two share-based incentive plans: the 2014 Stock Incentive Plan (2014 Plan) and the 2018 Employee Stock Purchase Plan (ESPP).

Stock Incentive Plan

Under the 2014 Plan, the Board of Directors may grant incentive stock options to Company employees and may grant restricted stock awards or restricted stock units (collectively RSAs), nonstatutory stock options, performance share awards (PSAs) or stock appreciation rights to Company employees, directors and consultants. The Compensation

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

Committee of the Board of Directors, as the administrator of the 2014 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, 2021, 12,899 shares of common stock had been reserved for issuance under the 2014 Plan and 1,505 shares were available for future grants.

Stock options, 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. Stock options generally expire ten years from the date of grant. Performance options expire ten years from the date of grant and vest in increments of 25 shares when the volume adjusted weighted average closing price of the common stock of the Company as reported by NASDAQ (or any other exchange on which the common stock of the Company is listed) for 30 consecutive days equals or exceeds specified amounts. A Monte Carlo simulation was performed to estimate the fair values, vesting terms and vesting probabilities for each tranche of options. Expense calculated using these estimates was recognized over the estimated vesting terms. As of December 31, 2017, compensation costs related to non-vested performance options were fully recognized.

The award agreements for the PSAs provide that each PSA that vests represents the right to receive one share of the Company's common stock at the end of the performance period. With respect to the PSAs, 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. Payout opportunities range from 0% to 100% of the target amount for awards granted prior to 2021, while awards granted in 2021 have payout opportunities ranging from 0% to 200% of the target amount. These ranges are used to determine the number of shares that will be issuable when the award vests. 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. PSAs granted prior to 2021 have performance targets based on the Company's revenue compound annual growth rate (CAGR) over the three year performance period. PSAs granted in 2021 have two equally weighted performance targets measured at the end of the three year performance period: (i) the Company's revenue CAGR; and (ii) relative total shareholder return (TSR). TSR is measured against the Nasdaq Health Care Index constituents and the 20-trading-day average stock price prior to the end of the performance period over the 20-trading-day average stock price prior to the beginning of the performance period. 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.

Activity under the plans during 2021 was as follows:

<u>Time-Based Stock Options</u>	Number of Shares Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2021	904	\$ 16.57		
Granted	100	70.00		
Exercised	(333)	13.48		
Cancelled	(18)	46.76		
Outstanding at December 31, 2021	653	\$ 25.53	4.4	\$ 29,071
Vested and expected to vest	647	\$ 25.18	4.4	\$ 29,023
Exercisable at December 31, 2021	520	\$ 16.67	3.3	\$ 27,513

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

	RSA Shares	Weighted Average Grant Date Fair Value	PSA Shares	Weighted Average Grant Date Fair Value
	Outstanding		Outstanding	
Restricted Stock Awards and Performance Share Awards				
Outstanding at January 1, 2021	935	\$ 30.92	287	\$ 39.70
Awarded	306	67.51	99	89.36
Released	(595)	28.73	(117)	38.51
Forfeited	(18)	45.73	(42)	57.08
Outstanding at December 31, 2021	<u>628</u>	<u>\$ 50.96</u>	<u>227</u>	<u>\$ 64.27</u>

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
	Outstanding			
Performance Stock Options				
Outstanding at January 1, 2021	175	21.04		
Granted	—	—		
Exercised	(175)	21.04		
Cancelled	—	—		
Outstanding at December 31, 2021	<u>—</u>	<u>\$ —</u>	<u>0</u>	<u>\$ —</u>
Exercisable at December 31, 2021	<u>—</u>	<u>\$ —</u>	<u>0</u>	<u>\$ —</u>

The total intrinsic value of options exercised during the years ended December 31, 2021, 2020 and 2019 was \$27,318, \$29,594 and \$1,985. 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 2021, 2020 and 2019, \$8,175, \$10,835 and \$1,202 in cash proceeds from the exercise of stock options were included in the Consolidated Statements of Cash Flows. The total fair value of restricted stock vested during 2021, 2020 and 2019 was \$40,510, \$34,200 and \$23,479. The total fair value of performance share awards vested during 2021 and 2020 was \$8,165 and \$4,003. The Company issues registered shares of common stock to satisfy stock option exercises and restricted stock and performance award grants.

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 a value of 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, 2021, there were 305 shares available for future issuance under the ESPP.

Valuation and Expense Information Under FASB ASC 718

The following table summarizes share-based compensation expense related to employees, directors and consultants for 2021, 2020 and 2019. The expense was allocated as follows:

	2021	2020	2019
Cost of revenue	\$ 2,243	\$ 1,425	\$ 917
Research and development expenses	4,206	3,530	2,374
Selling, general and administrative expenses	21,629	17,687	14,686
Total	<u>\$ 28,078</u>	<u>\$ 22,642</u>	<u>\$ 17,977</u>

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

The expense by award type was allocated as follows:

	2021	2020	2019
Restricted Stock Awards & Time-Based Stock Options	\$ 18,727	\$ 18,612	\$ 13,922
Performance Share Awards	8,095	2,921	3,254
ESPP	1,256	1,109	801
Total	<u>\$ 28,078</u>	<u>\$ 22,642</u>	<u>\$ 17,977</u>

In 2020, the Compensation Committee modified the methodology for measuring performance of the 2018, 2019 and 2020 performance awards. The modification to vesting conditions and performance measures resulted in incremental compensation cost of \$2,856 and \$569 during 2021 and 2020.

As of December 31, 2021 there was \$21,687 of unrecognized compensation costs related to non-vested stock options and restricted stock arrangements (\$2,341 relating to stock options and \$19,346 relating to restricted stock). This cost is expected to be recognized over a weighted-average period of 2.2 years for stock options and 1.8 years for restricted stock. As of December 31, 2021 there was \$10,301 of unrecognized compensation costs related to non-vested performance share awards, and this cost is expected to be recognized over a weighted-average period of 1.8 years.

In determining compensation expense, the fair value of restricted stock awards, restricted stock units and 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 or subsequent modification (as applicable).

The fair value of options is estimated on the grant date using the Black-Scholes model and includes the following assumptions:

	2021	2020	2019
Range of risk-free interest rate	0.43-1.22%	0.30-1.73%	1.43 - 2.64%
Range of expected life of stock options (years)	5.3 to 5.7	5.2 to 5.7	5.1 to 5.7
Range of expected volatility of stock	40.00 - 43.00%	40.00 - 43.00%	40.00 - 42.00%
Weighted-average volatility	41.84%	41.54%	40.87%
Dividend yield	0.00%	0.00%	0.00%

The Company's estimate of volatility is based solely on the Company's trading history over the expected option life. The risk-free interest rate assumption is based upon the U.S. treasury yield curve at the time of grant for the expected option life. The Company estimates the expected terms of options using historical employee exercise behavior.

The fair value of performance share awards with a market condition is estimated on the grant date using a Monte Carlo simulation and includes the following assumptions:

	2021
Stock price	\$ 66.31
Expected term (years)	2.8
Company volatility	42.10%
Peer group average volatility	91.00%
Peer group average correlation	31.50%
Risk-free interest rate	0.20%
Dividend yield	0.00%

The expected term is estimated as the remaining performance period at the grant date. Expected volatility is estimated based on the Company and peer group's daily trading prices, adjusted for dividends and stock splits over the

ATRICURE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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remaining performance period. The risk-free interest rate is based upon the US Constant Maturity yield curve at the time of grant for the expected term of the performance share awards.

Based on the assumptions noted above, the weighted average estimated grant date fair value per share of the stock options, restricted stock awards and performance share awards granted for 2021, 2020 and 2019 was as follows:

	2021	2020	2019
Stock options	\$ 27.31	\$ 15.25	\$ 11.56
Restricted stock awards	67.51	40.77	30.12
Performance share awards	89.36	38.42	30.77

17. SEGMENT AND GEOGRAPHIC INFORMATION

The Company evaluates reporting segments in accordance with FASB ASC 280, "Segment Reporting". The Company develops, manufactures and sells devices designed primarily for the surgical ablation of cardiac tissue, systems designed for the exclusion of the left atrial appendage and devices designed to block pain by temporarily ablating peripheral nerves. These devices are developed and marketed to a broad base of medical centers globally. Management considers all such sales to be part of a single operating segment. Revenue attributed to customer geographic locations is as follows:

	2021	2020	2019
United States	\$ 229,131	\$ 169,244	\$ 185,829
Europe	27,931	23,217	27,929
Asia	16,077	13,118	15,976
Other international	1,190	952	1,073
Total international	45,198	37,287	44,978
Total revenue	\$ 274,329	\$ 206,531	\$ 230,807

United States revenue by product type is as follows:

	2021	2020	2019
Open ablation	\$ 93,895	\$ 75,399	\$ 80,205
Minimally invasive ablation	39,380	25,647	34,842
Appendage management	94,568	66,981	68,166
Total ablation and appendage management	227,843	168,027	183,213
Valve tools	1,288	1,217	2,616
Total United States	\$ 229,131	\$ 169,244	\$ 185,829

International revenue by product type is as follows:

	2021	2020	2019
Open ablation	\$ 23,206	\$ 18,655	\$ 24,945
Minimally invasive ablation	6,409	6,171	8,349
Appendage management	15,534	12,353	11,476
Total ablation and appendage management	45,149	37,179	44,770
Valve tools	49	108	208
Total international	\$ 45,198	\$ 37,287	\$ 44,978

The Company's long-lived assets are located in the United States, except for \$1,399 as of December 31, 2021 and \$1,693 as of December 31, 2020 located primarily in Europe.

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS

	Beginning Balance	Additions		Deductions	Ending Balance
		Costs and Expenses	Other (1)		
Reserve for sales returns and allowances					
Year ended December 31, 2021	\$ 1,889	\$ 1,226	\$ —	\$ 699	\$ 2,416
Year ended December 31, 2020	3,979	66	—	2,156	1,889
Year ended December 31, 2019	1,410	369	2,240	40	3,979
Allowance for inventory valuation					
Year ended December 31, 2021	\$ 1,779	\$ 3,251	\$ —	\$ 390	\$ 4,640
Year ended December 31, 2020	1,517	801	—	539	1,779
Year ended December 31, 2019	1,029	848	—	360	1,517
Valuation allowance for deferred tax assets					
Year ended December 31, 2021	\$ 117,025	\$ 36,773	\$ —	\$ —	\$ 153,798
Year ended December 31, 2020	101,178	15,847	—	—	117,025
Year ended December 31, 2019	69,849	10,739	20,590	—	101,178

- (1) In connection with the acquisition of SentreHEART, the Company recognized an allowance for sales returns and refunds for transition to ASC 606 to reflect SentreHEART's historical refund practices and recorded a valuation allowance to offset the acquired net deferred tax assets.

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 months ended December 31, 2021 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, 2021. 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, 2021.

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

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, 2021, 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, 2021, 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, 2021, of the Company and our report dated February 17, 2022, 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 17, 2022

ITEM 9B. OTHER INFORMATION

None.

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 2022 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—Elements of Executive Compensation" and is incorporated herein by reference.

During the first quarter of February 2022, the Compensation Committee of the Board of Directors approved the AtriCure, Inc. Executive Leadership Severance Policy ("Policy"). The Policy will be effective May 25, 2022, and its purpose is to provide payments to eligible executive officers of the Company (other than the CEO) whose employment is involuntarily terminated in certain circumstances not involving a change in control. Under the Policy an executive officer who experiences an involuntary loss of employment with the Company as a direct result of position elimination or reduction in force not involving a change in control of the Company will be eligible for severance pay. The severance pay under the Policy shall be made in the form of the continuation of the payment of the executive officer's base salary over the eighteen months after termination of employment in accordance with the Company's payroll practices in effect. This description of the Policy is not complete. The Policy is filed with this report as Exhibit 10.20 and is incorporated herein by reference.

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

The following table summarizes information about our equity compensation plans as of December 31, 2021.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted-average exercise price of outstanding options, warrants and rights (2)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders (3)	1,507,801	\$ 26	1,504,648
Equity compensation plans not approved by security holders	—	—	—
Total	1,507,801	\$ 26	1,504,648

(1) Represents outstanding stock options, restricted stock awards and performance shares as of December 31, 2021.

(2) The weighted average exercise price is calculated without taking into account restricted stock that will become issuable, without any cash consideration or other payment, as vesting requirements are achieved.

(3) Amounts include awards under our 2005 Equity Incentive Plan and 2014 Stock Incentive Plan but exclude shares purchased under our 2018 Employee Stock Purchase Plan.

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

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

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

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

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

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (1) The financial statements required by Item 15(a) are filed in Item 8 of this Form 10-K.
- (2) The financial statement schedules required by Item 15(a) are filed in Item 8 of this Form 10-K.
- (3) The following exhibits are included in this Form 10-K or incorporated by reference in this Form 10-K:

Exhibit No.	Description
3.1	Second Amended and Restated Certificate of Incorporation (incorporated by reference to our Current Report on Form 8-K, filed on May 27, 2016).
3.2	Fourth Amended and Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed on February 16, 2018).
4.1	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (incorporated by reference to our Annual Report on Form 10-K filed on February 24, 2020).
10.1#	Employment Agreement, dated as of November 1, 2012, between AtriCure, Inc. and Michael H. Carrel (incorporated by reference to our Current Report on Form 8-K, filed on November 1, 2012).
10.2#	2005 Equity Incentive Plan, as amended on September 19, 2007 and on March 6, 2013 (incorporated by reference to our Annual Report on Form 10-K filed on March 8, 2013).
10.3#	AtriCure, Inc. 2018 Employee Stock Purchase Plan (Amended and Restated effective January 1, 2022 (incorporated by reference to our Quarterly Report on Form 10-Q, filed on November 4, 2021).
10.4#	Form of Change in Control Agreement between AtriCure and AtriCure Executive Officers (incorporated by reference to our Annual Report on Form 10-K filed on March 8, 2013).
10.5	Loan and Security Agreement dated as of February 23, 2018 by and among Silicon Valley Bank, AtriCure, Inc., AtriCure, LLC, Endoscopic Technologies, LLC and nContact Surgical, LLC (incorporated by reference to our Current Report on Form 8-K, filed on February 26, 2018).
10.6	Lease Agreement Dated August 20, 2014 between LM-VP AtriCure, LLC, as Landlord, and AtriCure, Inc., as Tenant (incorporated by reference to our Current Report on Form 8-K, filed on August 25, 2014).
10.7#	AtriCure, Inc. 2014 Stock Incentive Plan (Amended and Restated as of May 20, 2020) (incorporated by reference to our Current Report on Form 8-K, filed on May 22, 2020).
10.8#	Form of Restricted Stock Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.9#	Form of Stock Option Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.10#	Form of Restricted Share Unit Award Agreement under the Amended and Restated AtriCure, Inc. 2014 Stock Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q, filed on July 31, 2019).
10.11	First Loan Modification Agreement dated December 28, 2018 among AtriCure, Inc., Silicon Valley Bank, the lenders named therein, AtriCure, LLC, Endoscopic Technologies, LLC and nContact Surgical, LLC (incorporated by reference to our Current Report on Form 8-K filed on January 3, 2019).
10.12	Second Amendment to Loan and Security Agreement dated August 12, 2019 among AtriCure, Inc., Silicon Valley Bank, and the other parties named therein (incorporated by reference to our Current Report on Form 8-K, filed on August 11, 2019).
10.13	Joinder and Third Amendment to Loan and Security Agreement dated September 27, 2019 (incorporated by reference to our Quarterly Report on Form 10-Q, filed on October 31, 2019).
10.14	Fourth Amendment to Loan and Security Agreement dated April 29, 2020 among AtriCure, Inc., Silicon Valley Bank and the other parties named therein (incorporated by reference to our Current Report on Form 8-K filed with the Commission on April 29, 2020).
10.15	Fifth Amendment to Loan and Security Agreement dated February 8, 2021 among AtriCure, Inc., Silicon Valley Bank and the other parties named therein (incorporated by reference to our Annual Report on Form 10-K filed on February 26, 2021).
10.16§	Sixth Amendment to Loan and Security Agreement dated November 1, 2021 among AtriCure, Inc., Silicon Valley Bank and other parties named therein (incorporated by reference to our Quarterly Report on Form 10-Q filed on November 4, 2021).

Exhibit No.	Description
10.17	Form of Performance Share Award Grant Agreement for Awards Granted in 2018, 2019, and 2020 (incorporated by reference to our Annual Report on Form 10-K filed on February 24, 2020).
10.18#	Form of First Amendment to Performance Share Award Agreement for Awards Granted in 2019 and 2020 (incorporated by reference to our Annual Report on Form 10-K filed on February 26, 2021).
10.19#	Form of Performance Share Award Agreement for Awards Granted in 2021 (incorporated by reference to our Annual Report on Form 10-K filed on February 26, 2021).
10.20#	AtriCure, Inc. Executive Leadership Severance Policy.
14	Code of Conduct.
21	Subsidiaries of the Registrant.
23.1	Consent of Deloitte & Touche LLP.
31.1	Rule 13a-14(a) Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Rule 13a-14(a) Certification of Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification pursuant to 18 U.S.C. Section 1350 by the Chief Executive Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification pursuant to 18 U.S.C. Section 1350 by the Chief Financial Officer, as adopted, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File

Compensatory plan or arrangement.

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

ITEM 16. FORM 10-K SUMMARY

Not provided.

SIGNATURES

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

AtriCure, Inc.
(REGISTRANT)

Date: February 17, 2022

/s/ Michael H. Carrel

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

Date: February 17, 2022

/s/ Angela L. Wirick

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

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

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K has been signed by the following persons on behalf of the registrant and in the capacities indicated on February 17, 2022.

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

ATRICURE, INC.
EXECUTIVE LEADERSHIP SEVERANCE POLICY

1. Purpose

The purpose of the AtriCure, Inc. Executive Leadership Severance Policy (the "Policy") is to provide payments to eligible executive officers of AtriCure, Inc. (the "Company"), other than the Chief Executive Officer, whose employment is involuntarily terminated in certain circumstances not involving a change in control of the Company. The Policy is effective May 25, 2022.

2. Eligibility

Except as provided below, all persons designated by the Company's Board of Directors as executive officers of the Company, other than the Chief Executive Officer, are eligible to receive Severance Benefits according to the terms of this Policy, if the Company terminates their employment after the Effective Date for a Reason as set forth in Section 3.

3. Eligible Termination Reasons

- An executive officer who experiences an involuntary loss of employment with the Company as a direct result of position elimination or reduction in force not involving a change in control of the Company will be eligible for Severance Pay.
- Any other reason the Company determines should result in the payment of Severance Benefits under this Policy, provided that the reason constitutes an involuntary separation from service not in connection with a change in control of the Company.

4. Non-Eligible Termination Reasons

An executive officer is ineligible for Severance Pay under this Policy if employment is terminated for reasons including, but not limited to, the following:

- Voluntary resignation or retirement;
- Change in control;
- Cause;
- Death;
- Failure to meet performance standards;
- Disability

5. Severance Pay

Cash Payment. The amount of Severance Pay shall be one and one half times (1.5x) such executive officer's base salary in effect at the time of employment termination.

Benefits. Eligible executive officers receiving Severance Pay (and their covered dependents, if applicable) will not be eligible to continue active participation in any Company benefit plan or program, except to the extent expressly provided otherwise under the terms of the applicable benefit plan or program. Notwithstanding the foregoing, the monthly premium amount for health plan coverage provided by the Company under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("COBRA") that will be

charged to eligible executive officers (and their covered dependents, if applicable) who elect COBRA continuation coverage to continue health benefits provided by COBRA shall not exceed the monthly health plan premium amount that is paid by similarly situated active executive officers in the applicable health plan. Any equity-based awards received by the executive officer shall not be subject to this Policy and shall be governed by the terms and conditions of the applicable equity award plan documents and award agreements.

6. Requirement of Release of Claims

Severance Pay under this Policy is conditioned upon the executive officer timely signing a Release of Claims (the "Release") provided by the Company which will include a comprehensive release of all claims. In this Release, the executive officer will be asked to release the Company and its directors, officers, employees and agents from any and all claims the executive officer may have against them, subject to applicable law. Under the Release, the executive officer must also agree not to solicit business similar to any business offered by the Company from any Company customer, not to advise any entity to cancel or limit its business with the Company, not to recruit, solicit, or encourage any employee to leave their employment with the Company, not to disclose any of Company's trade secrets or confidential information, and not to disparage the Company or its employees in any way. These obligations are in addition to any other non-solicitation, noncompete, nondisclosure, or confidentiality agreements the executive officer may have executed while employed by Company. Payment of Severance Benefits will not be made unless the Company has received the executive officer's fully executed Release (which has not been revoked); timing of payments will be as specified under Section 7.

7. Method and Timing of Payment

Payment of the Severance Pay shall be made in the form of the continuation of the payment of the executive officer's base salary in equal installments over the eighteen (18) months after termination of employment in accordance with the Company's payroll practices then in effect. The first such payment shall be made within 15 days following the date on which the Release required under Section 6 has been executed and is fully effective and irrevocable. If an executive officer dies after becoming eligible for Severance Pay and executing a Release but before receipt of the full amount of Severance Pay, the Severance Pay will continue to be paid to the executive officer's estate over the remaining installment period. All payments will be net of amounts withheld with respect to taxes, offsets, or other obligations.

8. Requirement for Repayment of Severance Pay

In the event the executive officer is re-employed in any capacity in the Company or any of its subsidiaries or affiliates prior to the payment of Severance Pay or within the eighteen (18) month period following the executive officer's termination of employment (the "Severance Period"), or otherwise performs services for the Company in any capacity during the Severance Period (including as an employee or contractor of any enterprise which provides any services to the Company), the payment of any Severance Pay payable with respect to the prior termination immediately will cease and such Severance Pay will no longer be payable under this Policy.

9. Administration

This Policy is intended to be interpreted and administered in accordance with the requirements of applicable law. It shall be administered by the Company, which will have the absolute discretion and exclusive right to interpret, construe and administer the Policy and to make final determinations on all questions arising under the Policy, including but not limited to, questions concerning eligibility for, the amount of and receipt of Policy benefits. Severance Pay under this Policy shall be paid only if the Company determines in its absolute discretion that the executive officer is entitled to them. All decisions of the Company will be conclusive, final and binding upon the parties. The Company reserves the right to amend or terminate this Policy at any time and for any reason, with or without retroactive effect.

10. At-Will Employment

This Policy does not create any contract of employment or right to employment for any period of time. Employment with the Company is at-will and may be terminated by either the Company or the executive officer at any time for any reason.

11. Taxes

Payments made in accordance with this Policy will be subject to all applicable tax and employment laws and regulations, including wage tax withholding (e.g. federal, state and local income, employment and/or social security), deduction of any other applicable amounts, and information reporting to the tax authorities as may be required. However, it will be the executive officer's responsibility to make all tax payments with respect to the receipt of these amounts.

12. Section 409A

Exemption. All payments under this Policy are intended to be exempt from the requirements of Section 409A of the Internal Revenue Code of 1986, as amended ("Code Section 409A"). Any payments that may be excluded from Code Section 409A either as separation pay due to an involuntary separation from service or as a short-term deferral shall be excluded from Code Section 409A to the maximum extent possible. For purposes of Code Section 409A, each installment payment provided hereunder shall be considered a separate payment such that the determination of whether a payment qualifies as a short term deferral shall be made without regard to whether other payments so qualify and the determination of whether a payment qualifies under the separation pay exemption shall be made without regard to any payments which qualify as short-term deferrals. Payments under the Policy that do not qualify for the short-term deferral exemption shall be reduced to the extent necessary to satisfy the requirements of the separation pay exemption. To the extent any amounts under this Policy are payable by reference to an executive officer's "termination of employment," such term shall be deemed to refer to the executive officer's "separation from service," within the meaning of Code Section 409A.

Specified Employee. In the event any payment provided under this Policy is determined to be subject to Code Section 409A and the executive is determined to be a "specified employee" as defined in Code Section 409A(a)(2)(b)(i), then such payment shall not be paid until the first payroll date to occur following the six-month anniversary of the separation from service or, if earlier, on the executive's death (the "Specified Employee Payment Date"). The aggregate of any payments that would otherwise have been paid before the Specified Employee Payment Date shall be paid to the executive in a lump sum

on the Specified Employee Payment Date, and thereafter, any remaining payments shall be paid without delay in accordance with their original schedule. Notwithstanding any other provision of this Policy, any payment that is conditioned on the executive's execution of a release as provided in Section 6, the first payment shall include all amounts that would otherwise have been paid to the executive during the period beginning on the date of the separation from service and ending on the payment date if no delay had been imposed.

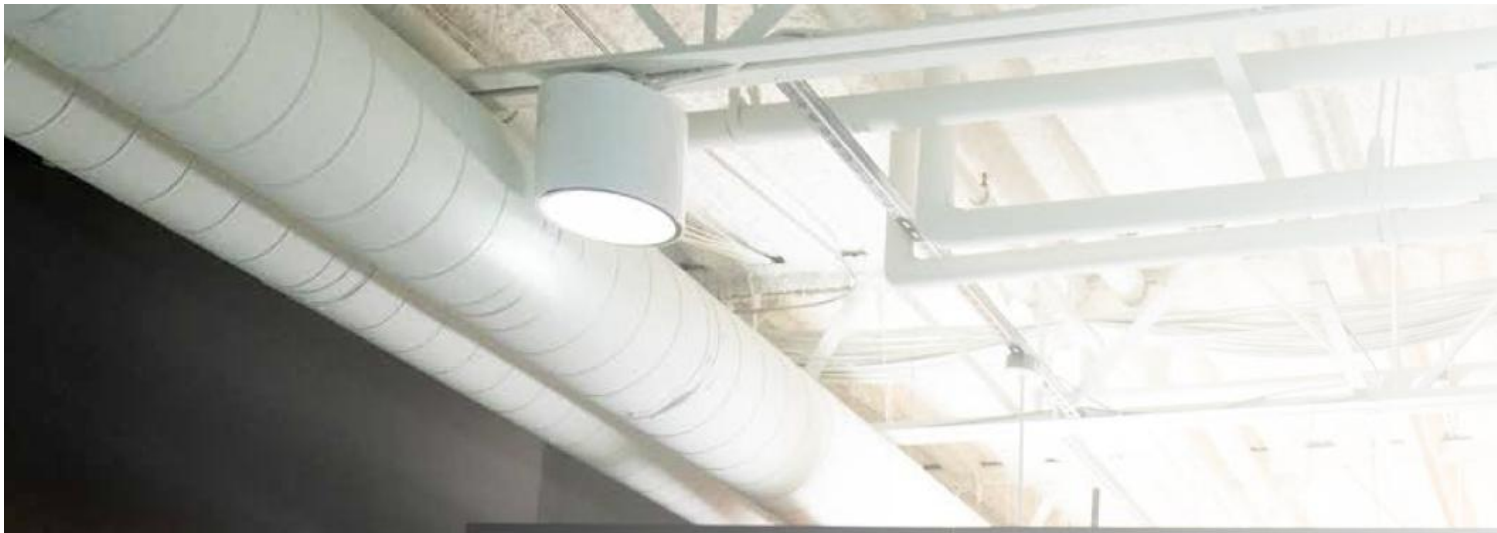
General. Notwithstanding the foregoing, under no circumstances shall the Company or any affiliate or any of its or their employees, officers, directors, service providers or agents have any liability to any person for any taxes, penalties or interest due on amounts paid or payable under the Policy, including any taxes, penalties or interest imposed under Code Section 409A.

AtriCure

Code of Conduct

Exhibit 14





AtriCure

Introduction from Our Chief Executive Officer and Chief Compliance Officer

Team AtriCure,

We are a part of a truly remarkable organization, and now we must fulfill the legacy started by those who came before us. Providing innovative and effective solutions that improve the lives of patients affected by Afib is a privilege that comes with great responsibilities—responsibilities that affect patients, one another, and the health care providers and other third parties with whom we do business. AtriCure is prepared and equipped to meet this challenge. AtriCure is Mission Driven.

This Code guides our conduct—our words, actions, and behaviors—and serves as a foundation for our policies, procedures, standards, and guidelines. We—employees, officers, and directors—share the responsibility of holding ourselves, both individually and collectively, and our methods of doing business, to the highest ethical standards and reinforcing that the trust and confidence so many have invested in AtriCure is well placed. Our AtriCure culture is centered on integrity, by doing the right thing in the right way. AtriCure is *Integrity Powered*.

We invite you to read this Code and use it as a guide for your conduct. Speak up if you have a concern or see something wrong – and seek guidance any time you are unsure about the right thing to do. We know that speaking up takes courage to act for the greater good, and you should be confident that you will not face retaliation if you raise concerns or seek guidance. You can trust that AtriCure will investigate fairly and take appropriate action that demonstrates our values.

Our Company's outstanding reputation reflects the credibility we have established, but we must never take that for granted. We must consistently act within both the letter and spirit of our Code to maintain that credibility.

We all should be so proud of AtriCure, its people, and the way we do business in accordance with the values laid out in this Code.

Our time is now!



Mike Carrel
Chief Executive Officer



Jonelle Burnham
Chief Compliance Officer



Our Values

Mission

We are passionately focused on reducing the global Afib epidemic and healing the lives of those affected.

Values

We work to heal the lives of Patients, empower our People, and collaborate with our Partners to reduce the burden of Afib worldwide.



AtriCure Values



PATIENTS



PEOPLE



PARTNERS

PATIENTS

Our first responsibility is to put patients first. We lead rigorous clinical science to determine the safest, most effective approaches and treatments. Our commitment to education generates consistent, predictable practices and standards of care. We undertake relentless innovation to reveal new ideas that improve the experience of providers and supports the care they deliver to each patient.

PEOPLE

Our people act with unwavering integrity and transparency in all we do. While honoring the dignity of each person, we foster collaboration to achieve excellence across all areas. We sustain a humble culture of gratitude for each other and the good that we can bring to the world.

PARTNERS

We are committed to delivering the highest quality and most efficient solutions to benefit our partners, including care providers, customers, and shareholders. We strive to understand their needs and to offer the products, services, and business value that meet those needs.

Employees located in the United States, note that nothing in this Code of Conduct restricts employees from engaging in activities that are protected under the National Labor Relations Act or similar laws and regulations, such as discussing their own wages or other terms of employment.

This Code of Conduct does not constitute an express or implied contract or offer of employment. This Code of Conduct and all or any of its provisions may be modified or revoked without notice.

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An aerial photograph of a modern, multi-story corporate building with a mix of white, grey, and brick facades. The building features large glass windows and an "AtriCure" logo on its side. In the foreground, a dark asphalt road curves through a well-maintained green lawn with various shrubs and small trees. A sign in the bottom right corner reads "AtriCure" in blue and orange, with "1455 INDEPENDENCE WAY" below it. An American flag flies on a tall pole to the left of the building. The sky is filled with soft, grey clouds, suggesting a late afternoon or early morning setting.

We are AtriCure.
Every relationship,
every transaction,
and every product we make
and every service we provide
should reflect our values.

Why We Have a Code

At AtriCure, our values are clear: we put patients first, ensure that our culture of integrity, honesty, and transparency inspires all our actions, individually and collectively, and drive relentlessly to innovate. Thus, one other thing should be equally clear: we are overwhelmingly committed to doing the right thing.

Each of us who works on behalf of AtriCure (or “our Company”) makes decisions every day to drive our strategies to help patients live more fulfilling lives. Some of these decisions might be straightforward and clear, but others may not be. It is not always easy to know how to do the right thing in every situation.

To help each of us make decisions that benefit patients, our Company, and our partners, AtriCure has created this *Code of Conduct* (or “Code”) to provide guidance that can help us apply AtriCure’s values consistently in all of our interactions, no matter where we do business. We are also responsible for knowing and following the laws, regulations, industry standards, and Company policies that apply to us, including those in our **Health Care Compliance Reference Manual**, **Business Partner Standards**, and regional **Company Handbook**.

At times, there might be situations where local requirements differ from our Code. In these cases, we will follow the stricter set of rules.

Remember that you are not alone. AtriCure’s team of managers, your supervisor, Human Resources (HR), the Legal Department, and the Compliance Department, including our Compliance Officer, are valuable resources available to you if you have questions about the right course of action.

Our Responsibilities

Just as everyone at AtriCure shares the responsibility of making high-quality products that improve patients’ lives, all of us—officers, employees, and directors—have a responsibility to demonstrate integrity in everything we do. This Code applies to all of us, no matter what our role is at AtriCure, and our commitment to doing the right thing never wavers.

Each of us is responsible for:

- ▶ Acting always in a professional, honest, and ethical manner
- ▶ Knowing our responsibilities under the Code as well as our policies, particularly those that relate to our individual responsibilities
- ▶ Completing required training in a timely manner and keeping up to date on current standards and expectations
- ▶ Raising concerns about possible violations of laws, regulations, or this Code to either your supervisor or another of the resources identified in this Code
- ▶ Reporting any investigation, audit, or inquiry (whether by government or a third party) to the Legal Department, cooperating fully and truthfully, and preserving accurate and complete reports relating to any investigation, audit, or inquiry—as well as for “legal holds,” when information and documents are required to be maintained for legal reasons

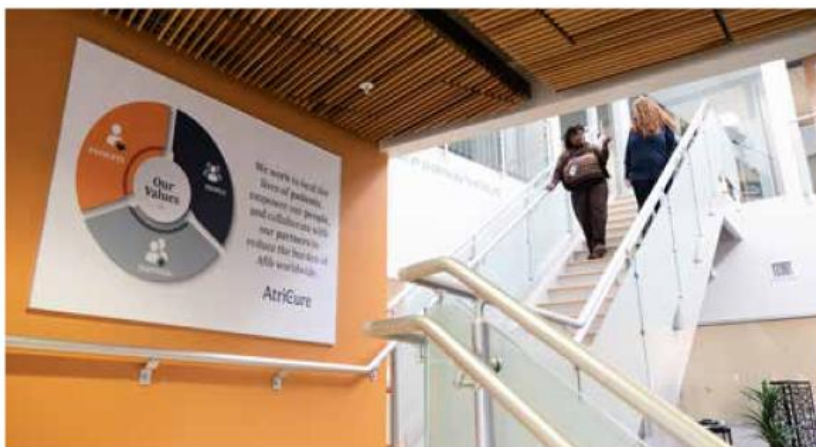
We are AtriCure. Every relationship, every transaction, every product we make, and every service we provide should reflect our values. Failing to meet our responsibilities can carry serious consequences. Depending on local law, this could include disciplinary actions up to termination of employment.

We expect our business partners to follow AtriCure's **Business Partner Standards**, which lays out our key shared ethical commitments and how we expect companies we work with to conduct business on AtriCure's behalf.

Additional Responsibilities of Managers

Our managers have the added responsibility of creating an open and supportive environment where employees feel comfortable asking questions, raising concerns, and reporting misconduct. AtriCure's managers, including all supervisors, have the following additional responsibilities:

- Leading by example to model the highest standards of ethical business conduct
- Contributing to a work environment that focuses on building relationships, recognizing hard work, and valuing mutual respect and open communication
- Serving as a resource for others by communicating to employees, consultants, and temporary employees about how our Code and policies apply to their daily work
- Looking for opportunities to discuss and address challenging questions with others
- Creating a "safe" environment that allows others to feel comfortable asking questions and reporting potential violations of laws, regulations, this Code, or our policies
- Responding quickly and effectively to concerns when they are raised
- Never asking or pressuring anyone to do something they cannot do themselves
- Using Company resources properly and productively
- Understanding and applying the limits of their authority, and delegating authority only where allowed—and never to anyone they suspect may engage in unethical or unlawful conduct
- Ensuring any third parties they work with understand their ethics and compliance obligations under our Code and applicable policies





Your manager talks about AtriCure's policies and making decisions in the best interests of the Company, but you notice that she regularly accepts small gifts from vendors during the vendor selection process. You are concerned this is not right and could be influencing her selection of vendor, but do not know what to do, especially since she is your manager.

You should speak to any of the resources listed in "Raising Concerns and Asking Questions," but understandably you probably do not want to talk to your manager since it is his/her behavior that is causing you concern. Your manager should be setting an example of integrity, not telling you one thing and doing something different. We are all held to high standards for ethical conduct, and managers should serve as a clear example to others.

Guidelines for Good Decisions

Sometimes recognizing the right decision is complex, and this Code cannot anticipate every potential scenario. At times, we will be under pressure or unsure of what to do. When faced with a tough decision, we should gather the available facts and rely on our good judgment and common sense. You should consider these questions:

1. Does your choice reflect AtriCure's values?

- a. Does it prioritize patient care and safety above all other considerations?
- b. Is it in favor of integrity, honesty, and transparency?
- c. Does it reflect a commitment to innovation?

2. Is your choice good for AtriCure?

- a. Is it consistent with applicable laws and regulations, as well as AtriCure's policies?
- b. Is it aligned with our obligations and commitments?
- c. Does it avoid conduct that could harm or embarrass anyone?

3. Would you be comfortable with your decision if everyone knew about it?

- a. Are you willing to assume full responsibility for the decision?
- b. Can you articulate the rationale for your decision?

If the answer to these questions is "yes", the decision is probably a good one. But if the answer to one or more of these questions is "no" or if you are unsure, you should pause, reconsider, and speak to your manager if you need help making a decision.



When we take action, speak up,
and report questions and concerns,
**we are protecting not only
patients but also the Company,
ourselves, our colleagues, and
AtriCure's reputation.**

Speaking Up

Raising Concerns and Asking Questions

Just as we are committed to improving our products to better serve patients and help them live longer, fuller lives, we all want to protect our culture and make AtriCure a stronger organization. One way that each of us can do this is by speaking up when we have a concern or see something that does not seem right.

Whether it is reporting misconduct or asking questions about difficult situations, speaking up about anything that might seem unethical or illegal helps our Company address small issues before they become big problems. That way, we can stay focused on our mission of reducing the global Afib epidemic and healing the lives of those affected.

In many cases, your manager might be the best resource to turn to if you have a concern or a question. Your manager will usually know the most about your work and can provide information and guidance in many situations, or help you find someone who can. In addition, the Human Resources, Legal, and Compliance functions are also willing to assist you.

You always have the option of using AtriCure's Ethics Hotline, which is only slightly different from raising concerns by contacting someone in person. The Ethics Hotline, which is operated by an independent third party, works like this:

- ▶ The Ethics Hotline is available 24 hours a day, seven days a week. If you call by phone (1-855-541-4171 in the United States or at the number indicated at [AtriCure.EthicsPoint.com](https://www.AtriCure.EthicsPoint.com) from outside of the United States), trained specialists from an independent third-party provider will answer your call, document your concern, and forward a written report to AtriCure's Compliance Officer for further investigation. If you use the online portal ([AtriCure.EthicsPoint.com](https://www.AtriCure.EthicsPoint.com)), you will document your concern yourself, and the written report will be forwarded in the same way.
- ▶ After making a report through the Ethics Hotline, you will receive an identification number so you can follow-up on your concern. Retaining this number and following up is especially important if you have submitted a report anonymously, as AtriCure may need additional information to conduct an effective investigation. This identification number also allows you to track the resolution of your concern. However, out of respect for privacy, the Company will not be able to inform you about individual disciplinary actions.

When you contact the Company's Ethics Hotline, you may choose to remain anonymous, if allowed under your local law. Whether you report anonymously or share your identity, AtriCure will review your information carefully, treat it equally, take it seriously, and handle it appropriately. This could include investigation, and where necessary, remediation or corrective actions to address issues, learn from mistakes, and avoid them in the future.

Keep in mind that anonymous reporting does not satisfy your duty to disclose your potential involvement in a conflict of interest or in unethical or illegal conduct. Also, nothing in this Code prevents you from reporting potential violations of the law to relevant government officials.

AtriCure has an opportunity to be even better every time someone raises a concern. When we take action, speak up, and report questions and concerns, we are protecting the Company, ourselves, our colleagues, and AtriCure's reputation. Remember, the Company cannot address an issue that it does not know about.

Our **Code of Ethics for the Chief Executive Officer and Senior Financial Officers** contains information on reporting suspected violations related to audit and accounting procedures or related matters.



You suspect—but are not certain—that your co-worker has been adding false entries to his expense reports. Should you keep your concerns to yourself, given your uncertainty?

No. If you suspect a violation, please say something to your manager or another resource. It's better to raise a potential issue in good faith than to wait and risk harm to our colleagues or the Company. Reporting "in good faith" means you are coming forward honestly with information you believe to be true, even if an investigation later reveals you were mistaken.



A Closer Look: Participating in Investigations

At times, you may be asked to take part in an investigation of a concern that has been reported. You should always:

- **Be truthful and forthcoming.** Provide all the information you have about the issue.
- **Keep it confidential.** Do not share anything you learn about the investigation with anyone who does not need to know it, even the person being investigated.
- **Avoid conducting your own investigation.** Let AtriCure's personnel who are trained to investigate look into the situation; do not try to do it yourself.



How Managers Should Handle Concerns

Managers have special responsibilities when questions and concerns are brought to them. Handling these issues appropriately is important in reaching fair resolutions, building trust in the Company, and in one another. If you are a manager and you receive a report of an issue, you should:

- ▶ **Listen carefully.** Thank the person for speaking up and remember that they have done something difficult and important.
- ▶ **Respond respectfully.** Take every concern seriously, even if you disagree. Commit to ensuring the concern is addressed.
- ▶ **Take steps to protect the person's confidentiality.** Avoid discussing the conversation with others who are not involved in resolving it. Share the issue and conversation only on a need-to-know basis.
- ▶ **Do not investigate the issue yourself** without consulting with the Compliance Officer, Legal Department, or Human Resources.



A manager's responsibilities include creating an open and supportive environment where employees feel comfortable asking questions, raising concerns, and reporting misconduct.

Inspire

- ▶ Lead by example
- ▶ Recognize hard work
- ▶ Conduct all business relationships ethically

Facilitate

- ▶ Communicate openly
- ▶ Develop mutual trust and respect
- ▶ Build relationships
- ▶ Promote proper and productive use of Company resources

Support

- ▶ Respond to concerns quickly and effectively
- ▶ Address challenges
- ▶ Use and delegate authority appropriately

Our Commitment to Non-Retaliation

Retaliation has no place at AtriCure. The Company will protect those who speak up and will not tolerate retaliation against anyone who asks a question, raises a concern, or participates in an investigation in good faith—meaning that you are giving all the information you have, and you believe your report is correct. AtriCure encourages all of us to speak up if we have concerns about potential retaliation in any form.

Keep in mind that retaliation is not always as obvious as someone getting fired or not getting a promotion. It can also take more subtle forms, such as leaving someone out of meetings, not sharing information with them, or giving them less-desirable work assignments.

We know it takes courage to step forward and raise a concern, and you can do so with confidence and without fear of retaliation. Please refer to your **Company Handbook** for more information.



In your position as a manager, you learn that a manager in a different department is dating an employee who reports to him. You know that this is a violation of our Code, but you have no formal responsibility for the department where this is happening. Should you still report what you know?

Yes. While you are chiefly responsible for the area you manage, you—like all AtriCure employees—should report any concerns of which you become aware. Managers have special responsibilities to take action to uphold AtriCure’s open, ethical culture. The best approach is to speak first with the other manager. We know this is not easy, but if you cannot or that does not resolve the problem, you should proceed with the alternative options outlined in this Code.



You see your colleagues conducting themselves in ways that violate the Code, but you are reluctant to raise your concerns for fear it will not be taken seriously and they will deny their conduct. You are also concerned that you might face retaliation if your colleagues discover or even suspect that you reported their concerning conduct. Should you still raise your concerns?

Absolutely yes, you should raise your concerns. Raising your hand to identify issues can be difficult and is uncomfortable, even when done anonymously. But it is always worthwhile to raise issues that could disrupt our work environment or compromise our efforts to achieve our mission. Also, AtriCure is serious about enforcing its non-retaliation policy. If you feel you have experienced any form of retaliation – whether from managers or from colleagues – speak up about it so it can be addressed.



**Retaliation has
no place at AtriCure.**

The Company will protect those who speak up and will not tolerate retaliation against anyone who asks a question, raises a concern, or participates in an investigation in good faith.



Putting **PATIENTS FIRST**

Meeting Our Commitment to Quality

Promoting with Integrity in the Marketplace

Marketing and Selling to Health Care Providers

Protecting Patient Privacy

Addressing Conflicts of Interest

Putting Patients First

Meeting Our Commitment to Quality

In all we do, we act in good faith, responsibly, with due care, competence, and diligence because we know that what we do changes lives. Patients lie at the heart of everything we do—so we always keep their best interests in mind. To help Afib patients around the world live healthier and more active lives, we are committed to designing, manufacturing, and providing the highest-quality products and services possible.

Quality means consistently satisfying requirements and expectations by delivering products and services of the highest value in a timely manner. AtriCure is proud of the quality of our products and of our actions underlying and surrounding those products. We are committed to exceeding customer and regulatory requirements regarding researching, developing, manufacturing, packing, testing, supplying, and marketing our products.

To fulfill our promise, we are committed to our Quality Policy, **PULSE**:

Patients are always first

Unwavering commitment to Quality in everything we do

Listen to our customers and exceed expectations

Satisfy all applicable regulations and standards

Execute and maintain an effective Quality Management System, which is the policies and procedures we rely on in the design and manufacture of product

In all areas of our business, from product research in our laboratories to delivery of our products, quality improvement is imperative to deliver consistent high-quality products that can treat even the most complex conditions. We also hold our suppliers accountable to ensure the quality of the products and services they provide to us.

For more information, see AtriCure's [Quality Standards](#).



You made a mistake with the data while working on a clinical trial, and some of the data is unusable now. Everything else about the trial has turned out exactly as expected, so you have every reason to believe this data would have been fine, too. You decide to extrapolate the missing data, as you think you remember most of it, and the extrapolated data fits in well with the other data. Is this okay?

No, not at all. You should speak to your manager about how to handle this mistake. Data from our clinical trials must always be real, accurate, and precise so that patients and health care providers can rely on and use our products safely.

Promoting with Integrity in the Marketplace

Our customers and the patients they serve depend not only on the quality of our products, but also on the quality of the information we provide to the medical community and the public. Information that we provide about our products must be useful, accurate, substantiated, scientifically rigorous, and consistent with applicable legal and regulatory standards. Promotional communications should describe the products' uses and as required, include a summary of precautions, warnings, and the effectiveness of the indicated uses.

AtriCure releases and distributes promotional materials in accordance with its **Commercial Materials Review Policy**. Because AtriCure's products are medical devices, we need to be more deliberate about marketing and promotion than most other industries.

This is especially true on social media.



A Closer Look: Using Social Media Responsibly

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

- ▶ Because you cannot control who views or shares what you post, treat everything on social media as public
- ▶ Always act in a professional manner that reflects well on you and AtriCure, and never give the impression that you speak on behalf of the Company
- ▶ Do not make unfounded or unsupported statements or misrepresent any facts
- ▶ If you choose to share or like official AtriCure material that has been approved through our Commercial Materials Review policy, do not add any content, including comments
- ▶ Keep in mind that sharing, retweeting, or liking a content or a post may be viewed as an endorsement, so do not interact with inappropriate content—especially anything that might be considered off-label information about AtriCure's products



As a sales representative, you know that AtriCure has a rigorous approval process for materials that are used in promoting and marketing AtriCure products, but you feel that one of our pieces is a bit confusing and could be clarified with a few small revisions that you can easily make using your home office equipment. Should you make the modifications to improve the materials?

No. We must never alter marketing or promotional materials because of the risk they could be inconsistent with the FDA-cleared or approved labeling information. You should contact the Marketing Department to discuss whether the material should be revised for clarity.

Just as we speak truthfully about AtriCure, we speak honestly about our competitors and others in our markets as well. We should never insult a competitor or their products, and we should never use unethical means to gather information about our competition.

Marketing and Selling to Health Care Providers

We respect the relationship between patients and their health care providers. We know how important it is that medical diagnostic and treatment decisions are made always in the best interest of the patient. We also believe that anyone who pays for health care should get full value for their purchase. To help ensure this, we recognize and respect the many laws intended to protect against fraud, waste, and abuse in health care. We follow these laws by refraining from offering things of value, such as gifts, entertainment, and recreation which may improperly influence the decisions of health care providers.

When health care providers (HCPs), such as physicians, provide services to AtriCure, we compensate them at fair market value for their work and take all local legal requirements into account. Our decisions to engage HCPs—and any payment for their services—are never intended to influence their purchasing decisions.

For additional information about interactions with HCPs, see the [Health Care Compliance Reference Manual](#). Speak to your manager if you have questions about the right way to work with HCPs.

Protecting Patient Privacy

We respect each patient's right to privacy, and we follow the laws and regulations designed to preserve that right. We are privileged to participate in the health care industry alongside HCPs who may have additional and specific obligations under laws, e.g., HIPAA in the United States. Accordingly, we are knowledgeable about and trained in allowable uses of personal health information for purposes of patient treatment.

All of us at AtriCure recognize our responsibilities to protect the personal health information of patients from inappropriate or unauthorized use or disclosure. We use this information only as needed to do our job, and we never share it with anyone who does not have a bona fide need for it. For more specific guidance about handling patient information, refer to the [Health Care Compliance Reference Manual](#).

Addressing Conflicts of Interest

We must always make decisions that are in AtriCure's best interest, avoiding actions and decisions that create, or even appear to create, a conflict of interest. We should never use our position at AtriCure, or any AtriCure resources, for our personal gain.

Each of us is expected to use good judgment and avoid situations that can lead to a conflict of interest, or even the appearance of a conflict of interest. A conflict of interest arises when a competing interest may interfere with our ability to make an objective decision on behalf of AtriCure. Conflicts of interest undermine the trust others place in us and damage our reputation.

Conflicts of interest may be actual, potential, or even just a matter of appearance. Since these situations are not always clear-cut, we should disclose any potential conflict of interest to our supervisor so that it can be properly evaluated, monitored, and managed.

It is not possible to identify every potential conflict of interest that could occur, but there are certain common situations where conflicts typically arise. Being able to recognize a potential conflict of interest can help you avoid one.

Types of conflicts of interest include:

➤ **Corporate Opportunities**

Any business opportunity you learn of through your employment belongs to AtriCure first. You should not take that opportunity for yourself unless you get written approval from your supervisor, who will first discuss the situation with the Compliance Officer.

➤ **Friends and Relatives at Other Companies**

If you find yourself working with a close friend or relative who represents a customer, supplier, or competitor, you should ensure that your judgment is not and does not appear compromised. You can do this by discussing the situation with your supervisor and the Compliance Officer. They can help determine how to address the conflict, such as having someone else manage that business relationship.

➤ **Relationships with Co-workers**

We should not supervise anyone we have a close personal relationship with at AtriCure, such as a relative or a romantic partner, as this could lead to the appearance of favoritism. Speak to your manager if you find yourself in such a situation.

➤ **Outside Engagements**

If you take any role outside AtriCure, as an employee, board member, or consultant, please notify your supervisor. They will help you determine whether the position creates a conflict. In some cases, it may be okay to have a second job. However, we may never work for a competitor, supplier, or customer performing work that competes with AtriCure's interests.

➤ **Personal Investments**

In general, you should not have a significant investment in one of AtriCure's competitors, business partners, or customers. "Significant" means that your investment is substantial enough for someone to think that you would act at AtriCure's expense to benefit your investment. If you are unsure whether there is a conflict, you should ask for additional guidance. The Compliance Officer can help you determine whether an investment creates a potential conflict.

Unless you have approval from AtriCure's Board of Directors, you should not accept a seat on the board of directors or advisory board of any of our Company's competitors, business partners, or customers, especially if your current job gives you the ability to influence AtriCure's relationship with them.

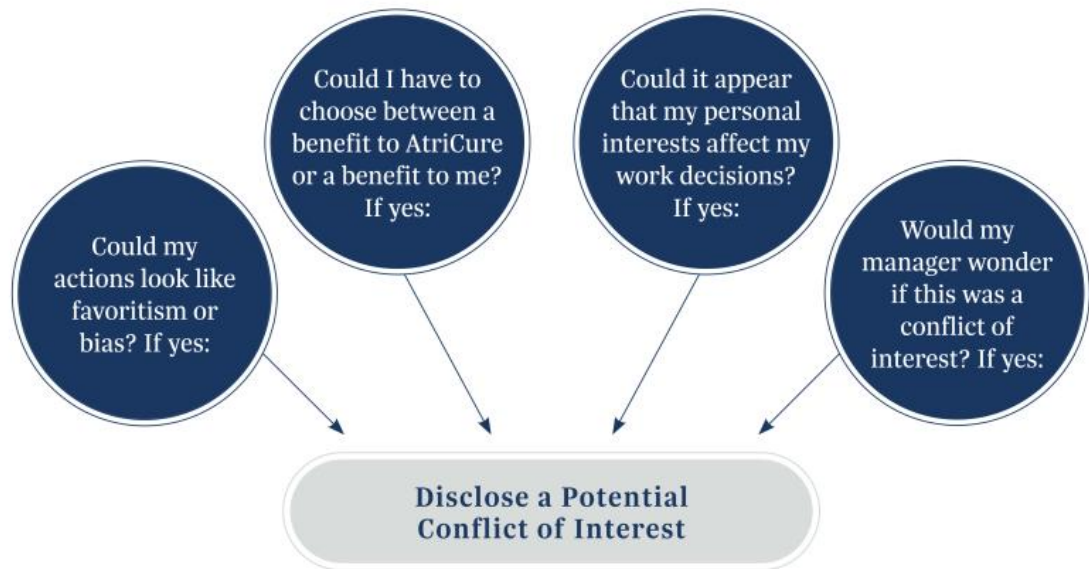
In general, you do not need prior approval to serve on the board of a not-for-profit or community organization—unless it creates a conflict related to the purchase or use of any AtriCure product.

AtriCure's **Conflicts of Interest Policy** contains additional detail relating to obtaining assistance and navigating these situations.



A Closer Look: Identifying a Conflict of Interest

It is not always easy to know when a situation could create—or appear to create—a conflict of interest. Here are some questions to ask yourself to determine whether you are facing a conflict.



If the answer to any of these questions is “yes,” or if you’re not sure, speak to your manager right away.

Conflicts of Interest: Examples

- Hiring a friend’s son for a job at AtriCure, where you would be his manager
- Convincing your co-worker in Sales to engage your sister as a consultant for AtriCure
- Working as a consultant for an AtriCure supplier
- Asking a supplier for a personal favor
- Making purchasing choices based on gifts or benefits being offered to you personally



EMPOWERING *Our People*

Fostering Collaboration

Creating a Safe Workspace

Maintaining Accurate Books and Records

Using Assets Wisely

Protecting Confidential Information

Protecting Insider Information

Volunteering and Being Politically Active

Empowering Our People

Fostering Collaboration

We share responsibility for fostering an inclusive and respectful workplace and for treating each other fairly, respectfully, and with honesty. To accomplish this, and to attract and retain talented individuals, we must maintain a supportive, professional, and respectful work environment.

AtriCure believes that diversity is key to innovation and excellence. Different viewpoints lead to new ideas and better solutions for patients. Each of us has a role to play in creating an inclusive and collaborative work environment that values diversity. We should all make it a point to seek out new ideas and different voices, no matter what work we do for AtriCure.

AtriCure prohibits discrimination based on someone's age, race, color, religion, sex, sexual orientation, gender identity, national origin, status as a protected veteran or individual with disability, or any other protected group status or non-job-related characteristic as directed by law. We are committed to providing a work environment that is free of unlawful discrimination, including harassment such as:

- ▶ Inappropriate, demeaning, or offensive jokes or comments
- ▶ Unwanted physical conduct
- ▶ Threats
- ▶ Sexually suggestive visual images, statements, or actions

Our colleagues, job applicants, and business partners are entitled to respect. We all deserve to be assessed based on our qualifications, demonstrated skills, experience, and achievements.

Our managers must foster an environment of integrity, honesty, and respect. This includes creating a work environment that is free from discrimination, harassment, intimidation, or bullying of any kind. This type of behavior is inconsistent with our values and this Code of Conduct and will not be tolerated. More information is available in your country-specific **Company Handbook – Harassment-Free Workplace**.



Your manager often loses her temper and yells at all the people on the team when things do not go according to plan. Is that harassment?

It depends, but regardless, the situation creates a negative work environment. This behavior is something that the Company will address because it violates our commitment to a respectful workplace. Share your concerns with HR, the Legal Department, the Compliance Department, or the Ethics Hotline.



A Closer Look: Bullying

Bullying can have an impact on an individual's health and affect their ability to do their job. Workplace bullying is characterized by persistent and repeated negative behavior directed at an individual that creates a risk to health and safety. Some behaviors that constitute bullying are:

- unfair and excessive criticism
- public insults
- undervaluing employees' efforts at work
- non-verbal bullying e.g., excluding or ignoring someone
- cyber bullying



You and your team members are working on updating AtriCure's website. You have been in the website design field for a while, and everyone else on his team is quite a bit younger than you. When you propose adding a new functionality to the website, one of your co-workers says, "Wow, no offense, but I did not think people your age knew about that!" Everyone laughs, but you are not sure how to respond. What should you do? Are you just over-sensitive?

You should speak to your manager or another resource you are comfortable with about this situation. You are not over-sensitive! At AtriCure, we never judge others based on factors such as age. We value the skills and insights that everyone brings to the table, and we want to create an environment that encourages everyone to bring their best ideas.

Each of us has a right to be treated with dignity and respect and to be fairly compensated for the work we do for our Company. That includes everyone who works at AtriCure as well as all third parties with whom we work. We know and follow all labor laws that apply to us everywhere we work and, beyond following the law, we want to do what is right.

If you have concerns about working conditions in any aspect of our Company's business, contact Human Resources.



You grew up in a country different from that in which you currently work and speak with a slight accent. Your co-worker has been teasing you about the way you say certain words. You told him that he is making you uncomfortable, but he told you to lighten up. When you tell your manager about it she says, “Look, he is probably just flirting with you. It is harmless. Do not let it bother you.” Did your manager handle this situation the right way?

No, she did not. As a manager, she has a responsibility to listen to your concern and take it seriously—not just dismiss it. This behavior is not appropriate for the workplace, and you did the right thing by speaking up. You can also speak to any of the other resources identified in this Code.

More information can be found in your country-specific **Company Handbook**.

Creating a Safe Workplace

AtriCure is committed to providing a safe workplace in every Company facility. To do our best work for AtriCure, and ensure that we meet our commitments to each other, we must never work under the influence of alcohol, illegal drugs, or misused prescription drugs. If you are taking a prescription medication that might make it difficult for you to do your job safely, discuss it with your manager.

There is another important aspect of workplace safety: meeting safety standards and regulations. Many of us work with hazardous chemicals or substances as part of our work, and we must always be sure we are handling them correctly. If you learn of a safety hazard—such as a chemical spill or an issue with equipment—alert your manager immediately. It is never okay to ignore any unsafe practice in our workplace, no matter how minor it might seem.

Finally, we must observe the safety, security, and health policies and procedures that apply to our jobs. We should:

- ▶ Promptly notify a manager or Facilities about any unsafe equipment or any other situation that poses a potential threat to health or safety
- ▶ Maintain a neat, safe work environment by keeping workstations, aisles, and other spaces free from obstacles, wires, and potential hazards
- ▶ Participate in crisis and safety drills at our location so we know what to do and can assist others in the event of an emergency
- ▶ Report unsafe conditions promptly

If you have concerns about a safety, health, or environmental hazard or unsafe equipment practices or conditions, promptly report them to your manager or to the Environmental Health and Safety Manager.

More information is available in your country-specific **Company Handbook – Violence-Free Workplace**.

Maintaining Accurate Books and Records

As a public company, AtriCure is committed to producing full, fair, accurate, timely, and understandable public disclosures based on complete and correct information. We recognize that AtriCure's books and records tell the story of our Company. They help us make good business decisions that serve our Company, our fellow employees, patients, and our business partners. Records include a variety of materials that we create as part of our work for AtriCure, including:

- Expense reports
- Timesheets
- Invoices
- Financial statements
- Research data or clinical trial records
- Contracts

No matter what work we do for AtriCure, the records that we create or work on must always be complete, accurate, and clear. We should never attempt to hide or distort the truth in any records, no matter how minor a record may seem. If you work on AtriCure's financial disclosures, it is especially important to be sure that they are always fair, truthful, and accurate, and that they meet generally accepted accounting principles. All employees are responsible for maintaining records, whether hard copy or electronic, according to AtriCure's **Records Management Policy**.



You sometimes forget to file expense reports for a few months at a time, but always catch up on them by the end of the year. Is this a problem?

Yes. While it may not seem like a big deal, especially relative to the other important work you are doing, it is very important to report all expenses on time—especially when they relate to health care providers. We need to be able to track everything we spend, not only for our own financial records, but also for purposes of reporting certain expenses to the government.

In addition, we should follow all applicable records management policies.

At times, we may be contacted about an audit, investigation, or government inquiry. We should always provide accurate and complete information in these situations and never alter any records that relate to an audit or investigation—even if we think we are only correcting an error. Contact the Legal Department if you have questions about responding to a records request. If you receive a communication from the Securities and Exchange Commission, contact the Chief Financial Officer.

Using Assets Wisely

We all have a responsibility to use the assets that AtriCure provides to us to work toward our goal of helping patients live better lives—and it is important that we use them wisely to maximize productivity and efficiency as we work towards our mission in alignment with our values. These assets include tangible assets (such as products, equipment, electronic devices, vehicles, work time, funds, and facilities) as well as intangible assets (such as business opportunities

for AtriCure, intellectual property, trade secrets, business information, and the Company's reputation). No matter what assets we use to complete our work, our responsibilities are the same: we should use them only as needed for business purposes, and we should never waste or misuse them. In some cases, minor personal use is okay if it does not interfere with our work.

We should take extra care to safeguard electronic resources, such as computers, printers, network and internet access, Company-issued phones, and similar devices. We must protect these resources by:

- Creating strong passwords
- Using only approved software
- Keeping laptops and other devices always secure
- Accessing only approved websites
- Never storing or sending material that is inappropriate, obscene, or defamatory
- Using resources only for legal purposes

Intellectual property is a vital component of AtriCure and includes the patents, trademarks, copyrights, and other intangible assets created in the course of business (ideas, inventions, process, etc.) All of us as AtriCure employees play an important role in protecting AtriCure's intellectual property, as contained and described in the **Non-Competition, Proprietary Information, and Inventions Agreement** or clauses in the employment contract we sign at the time of hire.

Some incidental personal use of electronic resources is usually fine, as long as our use does not interfere with our ability to complete our work. For example, it is okay to check your personal email or your bank balance on a Company laptop, if it does not take more than a few minutes.

Refer to the **Company Asset Use Policy** for more information.



You want to make a birthday card for your co-worker, so you download a free image editing application to work on it over your lunch break. It is an application you use at home, and so you know it is safe. Can you download it on your work computer?

No, you cannot. We should only use approved programs on AtriCure's computers and phones. Downloading programs and applications without approval can create security issues for AtriCure's network and other electronic resources.

Protecting Confidential Information

AtriCure's confidential information is one of our most valuable assets. We use Company information to develop and market our products, and it has tremendous value to our Company's success. As such, we each have a responsibility to safeguard this information.

Confidential information includes any non-public information we learn about AtriCure and anyone with whom we do business, such as suppliers and customers. That includes:

- ▶ Information about a company's financial condition, prospects, or plans
- ▶ Marketing and sales programs
- ▶ Research and development information
- ▶ Knowledge about possible transactions with other companies
- ▶ Intellectual property, such as patents, trade secrets, trademarks, copyrights, ideas, inventions, and designs
- ▶ Any information that might be of use to competitors, of interest to the press, or harmful to AtriCure or its customers if it were disclosed

Confidential information is vital for developing devices that meet our stakeholders' expectations for excellence and innovation. We should never share any of this information with anyone who does not need to know it for a business reason—even fellow AtriCure employees. We should avoid discussing confidential information in public where it could be overheard, and we should take care when using our laptop or viewing confidential information in public to be sure it is not visible to passersby. If you have a business need to share confidential information with a third party, reach out to the Legal Department to discuss the best way to do so.

Keep in mind that even if we leave AtriCure to work for another organization, we still have a responsibility to protect our Company's information. It is not okay to share confidential information with a new employer. Likewise, we should never ask new hires to share any confidential information they had access to at a previous employer.

Personal Information

Many of us have access to personal data about our colleagues, business partners, customers, and others. While protecting this information is now a legal requirement in many jurisdictions, privacy is also a matter of trust. In handling personal data, we will be deliberate and share information only on a need-to-know basis, thoughtfully, appropriately, and in a manner consistent with applicable privacy policies and notices. Understanding and properly applying the data privacy laws and policies applicable in our roles shows respect for individuals and decreases the risk of compromising personal data.



You and a colleague work in different departments and take the bus to and from work together. The two of you often chat in detail about the projects to which you are assigned. You both figure this is okay because no one is really listening to you. Is this right?

No. In public situations like this, you never know who could be listening. You both should be careful not to reveal any AtriCure confidential information in your conversations and should also only share information about third parties and personnel with each other if they have a business need to know it.

How We Protect Confidential Information

- ▶ Only access confidential information on approved devices
- ▶ Be aware of your surroundings—do not access confidential information where someone else could see it
- ▶ Avoid discussing confidential information in public
- ▶ Do not share confidential information with your family, friends, or even co-workers who do not need to know it for purposes of conducting business

Cybersecurity

We all need to develop and practice good cybersecurity habits as well. Because of the changing nature of the threats, this is an area that develops quickly and changes frequently. Make sure you follow the processes and practices we have in place to protect our networks, computers, programs, and data from attack, damage, and unauthorized access. Keep up to date on all training and make use of resources that are made available to you. Do not hesitate to reach out to available resources, like the Help Desk, when you have questions or concerns.

Protecting Insider Information

Many of us have access to insider information—that is, material, non-public information—about AtriCure or entities or individuals with whom we do business. Material information is any information that a reasonable investor would consider important in making a decision to buy, sell, hold, or vote securities. For example, this could include:

- ▶ Results of clinical trials relating to the Company's products or significant actions by regulators such as the FDA
- ▶ A pending or proposed merger, acquisition, tender offer, or joint venture
- ▶ A Company restructuring or changes in senior management
- ▶ New major contracts, orders, suppliers, customers, or finance sources – or the loss of one

- ▶ Significant changes or developments in products, research, pricing, or technologies
- ▶ Significant changes or developments in supplies or inventory, including significant product defects, recalls, or product returns

We should never buy or sell stock based on any insider information, even if it is about another company. We should also never pass this information along to anyone else so that they can make stock trades—a practice sometimes called “tipping”. Keep in mind that information is considered non-public until the stock market has had a chance to fully absorb it, so we must wait three days after material information becomes public before making any stock trades. For more information about insider trading, you can contact the Compliance Officer.

See the [Insider Trading Policy](#) for more information.



Volunteering and Being Politically Active

At AtriCure, we believe that we can bring good to the world with our spirit of excellence and gratitude. This belief goes beyond the work we do for patients. We strive to have a positive impact on the communities where we live and work.

In this spirit, AtriCure encourages us to volunteer for charitable organizations that support causes we care about. During these activities, we should not do anything that would give the impression that we are representing AtriCure. Likewise, we should not use Company time or resources for our own volunteer activities, unless we have permission to do so.

We may also choose to become involved in political causes. Just as with charitable activities, we should not give the impression that AtriCure supports the cause, and we should never use Company assets.

If you interact with government officials as part of your work for AtriCure, be sure to always keep integrity and transparency in mind. Follow the lobbying laws that apply to your work, and always act ethically.



A Closer Look: Volunteering

How can you avoid giving the impression that you represent AtriCure in your personal volunteer activities? It might not be as simple as you think. Here are some things to steer clear of:

- ▶ Using AtriCure resources (such as vehicles or electronic resources) for volunteer purposes
- ▶ Writing letters on AtriCure letterhead
- ▶ Providing items with the AtriCure brand or logo to the organization you volunteer for, without permission
- ▶ Using work time for volunteer activities without permission

In addition, we should ensure that our personal support of any charitable cause is not viewed as support from the Company. Any request for a charitable contribution from the Company should go through the proper review and approval process, which is generally administered by Human Resources. We must never make a charitable contribution to gain favor or exert improper influence.



COLLABORATING *with Our Partners*

Selecting the Right Business Partners

Avoiding Bribery and Corruption

Working with the Government

Doing Business Around the Globe

Speaking about AtriCure

Committing to Sustainability

Collaborating with Our Partners

Selecting the Right Business Partners

Each of us represents AtriCure—and so do our business partners. This includes suppliers, vendors, and anyone else with whom we work. Our business partners must also meet our standards for transparency, integrity, safety, and excellence. If you learn that one of our business partners is not living up to these standards, speak to your manager immediately.



You learn that two AtriCure vendors are working together to set the price of our products, and they are overcharging customers. They are not AtriCure employees, and you do not want to get too involved in their companies or business decisions. What should you do?

You should speak to your manager about this situation. This could violate laws related to fair competition. It is never okay to turn a blind eye to any illegal or unethical behavior, even if it does not involve AtriCure employees.

We work to heal the lives of patients, empower our people, and collaborate with our partners to reduce the burden of Afib worldwide.

We are committed to delivering the highest quality and most efficient solutions to benefit our partners.



Competing Fairly

We always deal fairly with AtriCure's suppliers, customers, competitors, and their employees. We do not take advantage of anyone through manipulation, concealment, or abuse of privileged information, misrepresentation of material facts, or any other type of unfair business practice.

We also respect our suppliers' and customers' confidentiality and privacy. We should use any information about our suppliers, customers, competitors, and employees in an ethical manner consistent with applicable laws, regulations, and our agreements. Under no circumstances should we obtain information through theft, illegal entry, blackmail, electronic eavesdropping, or any sort of misrepresentation. If you have questions or concerns about how any information was obtained, contact the Legal Department before using it.

Further, we always compete fairly and follow the local antitrust laws that apply to us. AtriCure is dedicated to ethical, fair, and vigorous competition. Our Company is committed to selling products based on their merit, superior quality, and innovative design through the efforts of our personnel and our expertise.

We must never make an agreement with a competitor to manipulate the market or agree to take part in any unethical or illegal competitive tactics, such as:

- Abusing market power
- Fixing prices or exchanging information that would facilitate price fixing
- Illegally dividing or allocating customers, markets, or territories
- Bid-rigging
- Limiting the availability of products or services
- Refusing to deal or encouraging a boycott of a product or service

It is important to understand that agreements with competitors or suppliers do not have to be formal or in writing to violate the antitrust laws. Even an informal, verbal agreement can be a violation of an antitrust law. Hence, we need to be careful about how we interact with other companies in our industry in any context.



A Closer Look: Trade Associations

In the medtech industry, trade associations are an important way that we can share information with colleagues from other companies. However, because trade associations, such as AdvaMed or Medtech Europe, bring competitors in close proximity with each other, they can also create the potential for antitrust violations. If you are interacting with competitors at a trade association meeting or a convention, keep the following guidance in mind:

- ▶ Avoid discussing anti-competitive topics (like AtriCure's pricing or the supply of the Company's products) in any way. Even casual discussions could seem suspicious to observers.
- ▶ If someone else brings up an anti-competitive topic in a conversation, it is not enough to just stay silent. Be sure that you voice your objection to the topic, and then leave the conversation immediately.
- ▶ At formal meetings of trade associations, always make sure there is an agenda, and stick to it. If someone starts talking about topics that could violate antitrust laws, you should speak up and object to it. Make sure that your objection is recorded in the meeting minutes, and then leave the meeting.

Antitrust laws are complex, and it is not always easy to know how to follow them. If you have questions about interacting with competitors, do not hesitate to speak to your manager, the Legal Department, the Compliance Officer, or any other resource.

Avoiding Bribery and Corruption

We do not engage in corruption or bribery in our business practices or allow any third parties working on AtriCure's behalf to do so. We prohibit bribes, fraudulent conduct, kickbacks, illegal payments, and any other offer of anything of value that may inappropriately influence anyone we do business with. We never offer or give anything in order to secure an improper advantage with a government official, HCP, customer, or third party.

We succeed by delivering high-quality and efficient solutions to our partners, not through bribery or other forms of corruption. AtriCure believes that bribery can affect physicians' decision-making and negatively impact patients. As part of our commitment to helping patients get the best outcome for their health, whether we are working with government or commercial customers, we never offer or accept a bribe of any kind. A bribe does not have to be cash—it could be anything of value, such as:

- ▶ Gifts, meals, or entertainment
- ▶ Favors
- ▶ Offers of employment or internships
- ▶ Contributions to charitable organizations
- ▶ Loans or discounts that are not commonly available
- ▶ Paid vacations or travel

Our stance is simple: we steer clear of offering or accepting anything that could even appear to be a bribe or an attempt to influence a business decision. In addition, we cannot hire a third-party agent or entity to do something that would not be allowed under this Code. We must never hire a consultant or third-party agent if we have reason to believe they may attempt to engage in bribery or corrupt activities.

AtriCure has detailed procedures for engaging sales intermediaries around the world. See our [Sales Intermediary Policy](#) for more guidance.

If we work with government officials, we should also be on the lookout for requests for facilitation payments. These small payments are intended to facilitate routine government actions, such as obtaining permits or visas. In some places where we work, facilitation payments may be legal under local laws. However, we at AtriCure will never offer a facilitation payment in any situation.

Who Is a Government Official?

“Government official” is a broad term that refers to any officer or employee of a government or any department or agency, or any person acting in an official capacity. This includes:

- Employees and officers of a government or any department or agency
- Elected officials
- *Employees or associates of government-owned or -controlled entities, such as public universities, hospitals, utility companies, or housing authorities
- Anyone acting in an official capacity
- Royal family members
- Political candidates and political party officials
- Employees of international organizations like the United Nations

*In some countries around the world, local governments regulate health systems and play a very active role in health care. In these countries, most health care workers (including physicians, administrators, and other HCPs) who work in state hospitals are considered government officials. If we work with government officials, we must always avoid attempting to influence their decisions or give the appearance that we are doing so. Such behavior violates the Foreign Corrupt Practices Act of the United States and potentially the anti-bribery and anti-corruption laws of other countries as well.



A representative of a sales intermediary told you that he is arranging a convention at a lavish resort so that customers and their families can convene for a weekend. The representative told you, “I think you will be excited about the increase in your sales after the weekend.” Is this okay? After all, you did not yourself do anything wrong.

Under AtriCure’s policy, an event like this is never allowed, even if it is organized by a third party. Sales intermediaries, distributors, and other third parties that act on behalf of our Company may not do anything that we are not allowed to do ourselves. If you hear of one of AtriCure’s third parties doing something that does not meet our standards for integrity, you should reach out for help from your manager or the Legal or Compliance functions.

It is not always easy to tell when something could be considered a bribe, as the anti-bribery and anti-corruption laws are complex. Speak to either the Legal Department or the Compliance Department if you have any questions before offering or accepting anything questionable.



An administrator at a government hospital tells you that his facility is trying to choose between AtriCure and one of our competitors. He says he will choose AtriCure if you can help his daughter get an internship in our Company’s research department. You know that there are openings for research interns, and the physician’s daughter seems like she is qualified. Can you recommend her for an internship?

No, you cannot. The hospital administrator is a government official, and he is asking for a bribe—a favor for his daughter. We never offer bribes under any circumstances. You should get help managing this situation.



Steering Clear of Kickbacks and Inappropriate Gifts

As employees, we sometimes encounter situations where we are offered kickbacks, inappropriate gifts, or entertainment by a customer, supplier, or other organization with whom AtriCure does business. A kickback is the return of money already paid (or that is due to be paid) to reward making or fostering a business arrangement. We should never accept anything that is intended to improperly influence a business decision or that could appear to be a kickback. Neither we nor our family members should accept any gift or entertainment unless it meets all of the following criteria:

- It is infrequent (certainly not more than once per year)
- It is not a cash or a cash equivalent
- It is consistent with customary business practices
- It is not excessive in value
- It could not reasonably be construed as a bribe or payoff
- It does not violate any laws or regulations

We should never accept, request, or offer any form of “under-the-table” payment, kickback, bribe, rebate, or other payment. If you are offered an improper payment or gift, report it to your manager immediately.

For more information, see AtriCure’s [Conflict of Interest Policy](#).

Is it okay to accept a gift or entertainment by
AtriCure’s customer, supplier, or business partner?

Only if the following are true:



The law prohibits offering, accepting, or requesting kickbacks or bribes. Do not accept any payment or rebate that is made, or looks like it could be made, to influence or reward a business decision.

Valuable or regular gifts, entertainment, or payments of any kind could be considered a kickback or bribe and should not be accepted or offered by AtriCure or members of our organization.

Working with the Government

Many government agencies purchase our products. As with all customers, we should take extra care to act transparently and with integrity when working with the government. We must know and follow all regulations and contractual requirements that apply to us, as there are many important laws that apply to our work with government-funded health care programs, such as the United States False Claims Act, among others. When claims are submitted to the government for reimbursement, all of the information in the claim needs to be complete, accurate, and in line with legal requirements.

For more information about working with the government, refer to the [Health Care Compliance Reference Manual](#).

Doing Business Around the Globe

We provide solutions for patients around the world, and we always follow all applicable laws related to global trade so that our products can reach patients who need them.

We must follow the import and export laws that apply to our work. It is important to keep in mind that imports and exports do not have to be physical—they can be information or software, for example. In these cases, trade laws still apply. Be sure you have checked the relevant laws before importing or exporting anything.

We also comply with laws related to trade sanctions and boycotts. We do not do business with countries or individuals on watch lists, and we never engage in any unsanctioned boycott. Trade laws and sanctions can be complex, so it is important to do proper due diligence on anyone we do business with to be sure we are following the law. If you have questions, speak to the Chief Compliance Officer.

Money Laundering

During the course of our work for AtriCure, we should be watchful for signs of money laundering. Money laundering is any process designed to make illegal funds seem legitimate. Some common signs of money laundering are:

- ▶ Overpaying and requesting a partial refund
- ▶ Breaking one large transaction into smaller ones
- ▶ Paying in cash
- ▶ Receiving payments from a third party on someone else's behalf
- ▶ Making requests to transfer money to another country

If you note potential indications of money laundering, speak to your Compliance Officer promptly.

Speaking about AtriCure

The information we give the public about our Company and our products should always be accurate and clear. Whether on social media or in any other context, we never give the impression that our views represent the Company unless we are an authorized spokesperson. If you are contacted about your work for AtriCure by a member of the media, refer them to AtriCure's Vice President, Corporate Marketing & Communications, or, if you are contacted by an analyst or investor, refer them to the Chief Financial Officer.



You host a podcast where you talk to other researchers in the medtech industry about their work. You often state that you work for AtriCure and sometimes mention when AtriCure is working on a new solution for patients. You know that only a few people listen to your podcast, so you figure this is not a big deal. Are you right?

No, that is not right. Listeners might get the impression that you are speaking on behalf of AtriCure, which is not true. In addition, you need to ensure you are not sharing AtriCure's confidential information. Even if you only have a few listeners, you must still be careful about what you say and should talk to one of our available resources that can help guide you.

Committing to Sustainability

We respect international social principles aimed at promoting and protecting human rights and invest in improving the lives of people in need. We engage and encourage our employees to engage in their communities in positive and productive ways.

We strive to minimize our impact on the environment, so that we, patients, and our partners can thrive in the long term. We continually work to establish and refine programs to reduce our resource use, minimize our carbon footprint, and fight climate change. We expect the same commitments from our suppliers and business partners, and we will do our part to ensure that they are doing so.

We know that we have a role to play in protecting our planet for future generations, and we are proud to do so. This focus on sustainability and long-term results helps us succeed as a business and as a community. We are always working to ensure that we are meeting the standards set by others in our industry and the global business community as a whole.

Exceptions

If you feel you need an exception to any provision of our Code of Conduct, you must first contact your manager. If they believe an exception is warranted, they must contact the Compliance Officer in writing to obtain written approval. Exceptions for board members and officers must be approved by the Company's Board of Directors.

To determine whether an exception is appropriate, consider whether the request truly is "exceptional," meaning it is not something that everyone would want because it represents higher value or better quality. The situation must have some truly unique or uncommon aspect.

Exceptions must be obtained in advance, not after the fact. We should include written approval of any exception with any related documentation and records, such as expense reports. The Compliance Department will track exceptions.





Know where to go for help: AtriCure has people ready to support you, including your manager and other managers within the organization, members of our Human Resources Department, the Legal Department, and the Compliance Department, which can also be reached through Compliance@AtriCure.com. Of course, AtriCure's Ethics Hotline is also available at 855.541.4171 within the United States and through AtriCure.EthicsPoint.com, which contains phone numbers available for other countries as well.

**ATRICURE, INC.
CORPORATE HEADQUARTERS**

7555 Innovation Way
Mason, Ohio 45040 USA
www.AtriCure.com

ATRICURE – MINNETONKA

130 Cheshire Lane, Suite 250
Minnetonka, MN 55305 USA

ATRICURE – PLEASANTON

3875 Hopyard Rd, Suite 160
Pleasanton, CA 94588 USA

ATRICURE – EUROPE BV

De Entrée 260
1101 EE Amsterdam Z.O.
Netherlands

ATRICURE – HONG KONG

Level 16, The Hong Kong Club Building
3A Chater Road
Central, Hong Kong

AtriCure Code of Conduct
POL-002-000 Version 02
Effective 2021

AtriCure

SUBSIDIARIES OF ATRICURE, INC.

AtriCure Europe, B.V., incorporated in the Netherlands

AtriCure, LLC, a Delaware limited liability company

Endoscopic Technologies, LLC, a Delaware limited liability company

nContact Surgical 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 Hong Kong Limited, incorporated in Hong Kong

AtriCure (Beijing) Medicine Information Consulting Service Co., Ltd., incorporated in Beijing

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-230001 on Form S-3 and Registration Statement Nos. 3333-240190, 333-232912, 333-226541, 333-226540, 333-219535, 333-216704, 333-199744, 333-194481, 333-187123, 333-180037, 333-173204, 333-173203, 333-165781, 333-165780, 333-157974, 333-157972, 333-152014, and 333-152013 on Form S-8 of our reports dated February 17, 2022, relating to the consolidated financial statements and financial statement schedule 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, 2021.

/s/ Deloitte & Touche LLP

Cincinnati, Ohio
February 17, 2022

**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 17, 2022

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 17, 2022

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, 2021 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 17, 2022

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, 2021 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 17, 2022

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.