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

# Form 10-K

**(Mark One)**

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

**For the fiscal year ended December 31, 2022**

**OR**

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

**For the transition period from to**

**Commission file number: 000-50744**

# NUVASIVE, INC.
**(Exact name of registrant as specified in its charter)**

| **Delaware** | **33-0768598** |
|---|---|
| **(State or other jurisdiction of incorporation or organization)** | **(I.R.S. Employer Identification No.)** |
| **12101 Airport Way Broomfield, Colorado** | **80021** |
| **(Address of principal executive offices)** | **(Zip Code)** |

**(800) 455-1476**

**(Registrant's telephone number, including area code)**

**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, par value $0.001 per share** | **NUVA** | **The Nasdaq Stock Market LLC (Nasdaq Global Select Market)** |

**Securities registered pursuant to Section 12(g) of the Act: None**

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 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 than 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 (Section 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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," a "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐

Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

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

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

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately $2.6 billion as of the last business day of the registrant's most recently completed second fiscal quarter (June 30, 2022), based upon the closing sale price for the registrant's common stock on that day as reported by the Nasdaq Global Select Market. Shares of common stock held by each officer and director on June 30, 2022 have been excluded in that such persons may be deemed to be affiliates.

As of February 20, 2023, there were 52,192,119 shares of the registrant's common stock issued and outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Part III of this Form 10-K incorporates information by reference to portions of the definitive Proxy Statement for the registrant's 2023 Annual Meeting of Stockholders, which will be filed with the U.S. Securities and Exchange Commission not- later than 120 days after December 31, 2022.

**NuVasive, Inc.**

**Annual Report on Form 10-K for the Fiscal Year ended December 31, 2022**

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## PART I

This Annual Report on Form 10-K, or Annual Report, contains forward-looking statements that involve risks, uncertainties, assumptions and other factors which, if they do not materialize or prove correct, could cause our results to differ from historical results or those expressed or implied by such forward-looking statements. In some cases, you can identify these forward-looking statements by words like "may", "will", "should", "could", "expect", "plan", "anticipate", "believes", "estimates", "predicts", "potential", "intends", or "continues" (or the negative of those words and other comparable words). Forward-looking statements include, but are not limited to, statements about:

- the proposed merger with Globus Medical, Inc., or Globus Medical;
- the value proposition of our products and procedural solutions;
- our intentions, beliefs and expectations regarding our net sales, expenses, operations and future financial performance;
- our operating results;
- our plans for future product development and enhancements of existing products and solutions;
- anticipated growth and trends in our business;
- third-party reimbursement policies and practices;
- the timing of and our ability to maintain and obtain regulatory clearances or approvals;
- our belief that our cash, cash equivalents and investments will be sufficient to satisfy our anticipated obligations;
- the impact of global economic conditions and public health crises and epidemics, such as inflation and the COVID-19 pandemic, on our business and industry;
- our expectations regarding our customers and the adoption of our products and procedures;
- our beliefs and expectations regarding our market penetration and expansion efforts;
- our expectations regarding the benefits and integration of recently-acquired businesses and our ability to make future acquisitions and successfully integrate any such future-acquired businesses;
- our anticipated trends, product pricing pressure, competitive tactics and other challenges in the markets in which we operate; and
- our expectations and beliefs regarding and the impact of policy changes, investigations, claims and litigation.

These statements are not guarantees of future performance or events. Our actual results may differ materially from those discussed in this Annual Report and the documents incorporated by reference to this Annual Report. The potential risks and uncertainties that could cause actual results to differ materially include, but are not limited to, those set forth in Part I, Item 1A – Risk Factors, Part II, Item 7 – Management's Discussion and Analysis of Financial Condition and Results of Operations and elsewhere throughout this Annual Report and in any other documents incorporated by reference to this Annual Report. Readers are cautioned not to place undue reliance on such forward-looking statements. We assume no obligation to update any forward-looking statements to reflect new information, future events or circumstances or otherwise, except as required by law. This Annual Report and the documents incorporated by reference to this Annual Report also contain estimates, projections and other information concerning our industry, our business, and the markets for certain medical conditions and procedures. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data, and similar sources.

This Annual Report and the documents incorporated by reference into this Annual Report may refer to trademarks, such as one or more of: Absolute Responsiveness, Advanced Materials Science, Affix, Armada, AttraX, Bendini, Brigade, C360, Coalesce, Cohere, CoRoent, DBR, ExtenSure, Gradient Plus, Halo, iGA, Lessray, Leverage, MAGEC, MAS, Maxcess, Mod-Ex, Modulus, NuvaLine, NuvaMap, NuVasive, NVM5, Osteocel, P360, Precept, Precice, Propel, Pulse, Radian, Reline, Speed of Innovation, SpheRx, The Better Way Back, Traverse, Triad, VuePoint, X360, X-Core, XALIF, XFixation, and XLIF, which are protected under applicable intellectual property laws and are our property or the property of our subsidiaries. Solely for convenience, our trademarks and tradenames referred to in this Annual Report may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames. This Annual Report may also include trademarks owned by other parties, and all other such trademarks mentioned in this Annual Report are the property of their respective owners.

## Item 1. *Business*

### Overview

We are a global medical technology company focused on developing, manufacturing, selling and providing procedural solutions for spine surgery, with a guiding purpose to transform surgery, advance care and change lives. We offer a comprehensive portfolio of procedurally integrated spine surgery solutions, including surgical access instruments, spinal implants, fixation systems, biologics, and enabling technologies, as well as systems and services for intraoperative neuromonitoring. In addition, we develop and sell magnetically adjustable implant systems for spine and specialized orthopedic procedures. For the year ended December 31, 2022, we generated net sales of $1.2 billion, including sales in more than 50 countries.

Since our incorporation in 1997, we have grown from a small developer of specialty spinal implants into a leading medical technology company delivering procedurally integrated solutions for spine surgery. A key driver of our growth has been our focus on innovative products and technologies that drive reproducible outcomes for patients, surgeons and providers. In 2003, we introduced the eXtreme Lateral Interbody Fusion procedure, or XLIF, a lateral access spine surgery technique that is less invasive than traditional, open surgical procedures and clinically proven to enable better patient outcomes. Building off the success of XLIF, we have continued to develop innovative, less-invasive techniques and technologies for spine surgery, and we have broadened our portfolio of solutions for traditional, open surgical procedures. Our comprehensive portfolio of solutions can be utilized in procedures for the cervical, thoracic and lumbar spine, supporting surgical approaches from the anterior, including lateral, and posterior. Our solutions are used to treat degenerative conditions and for complex spinal surgery, including adult and pediatric deformities, as well as trauma and tumors.

Underlying our procedurally integrated solutions for spine surgery are innovative technologies designed to enable better clinical, financial, and operational outcomes, including:

- our differentiated surgical access instruments, including our integrated split-blade retractor system, designed to enable less-invasive surgical techniques by minimizing soft tissue disruption during spine surgery;
- our Advanced Materials Science portfolio of specialized spinal implants, designed to advance spinal fusion by enhancing the osseointegration and biomechanical properties of implant materials, including porous titanium and porous polyetheretherketone, or PEEK;
- our comprehensive fixation systems, designed to facilitate the preservation and restoration of patient alignment, while addressing a vast array of spinal pathologies from an open or less-invasive approach across all spinal procedures;
- our cervical total disc replacement, or cTDR, technology, which complements our portfolio of products and services for cervical spinal fusion surgery and is designed to offer surgeons best-in-class capabilities across key performance functions—anatomic, physiologic motion, and radiologic design;
- our neuromonitoring systems, which use proprietary software-driven nerve detection and avoidance technology, and our intraoperative neuromonitoring, or IONM, services and support; and
- our Pulse platform, a software ecosystem that integrates multiple hardware technologies into a single, condensed footprint in the operating room, including: radiation reduction, imaging enhancement, rod bending, navigation, IONM, and spinal alignment tools.

In addition, we also design and sell expandable growing rod implant systems for the treatment of early-onset scoliosis that can be non-invasively lengthened following implantation with precise, incremental adjustments via an external remote controller using magnetic technology called MAGnetic External Control, or MAGEC. This technology is also the basis for our Precice line of products, which are designed to support complex orthopedic reconstruction, such as trauma and limb length discrepancy. Precice is an intramedullary device that, once implanted, utilizes the MAGEC technology to non-invasively lengthen the femur and tibia.

We intend to continue development on a wide variety of innovation projects to advance our leadership position in less-invasive spine surgery, increase our product offerings and solutions for traditional spine surgery procedures, and further our enabling technologies portfolio. We expect to continue to invest in the Pulse platform to support our global commercialization plan for the technology and build-out the platform to enable further improvement of the spine care pathway. Our goal is to use technology and data to make spine surgery more intelligent, and we are investing to develop and expand the Pulse platform to include applications and technologies designed to improve pre-operative treatment selection and planning and post-operative workflow and analytics, as well as intra-operative surgical automation and robotics. In addition, we expect to continue to pursue business and technology acquisition targets and strategic relationships to identify opportunities to broaden our participation along the spine care continuum, as well as opportunities outside of traditional spine. Top priorities include opportunities that complement our technology leadership position in spine, targeted geographic expansion, technology that makes procedures even safer, as well as opportunities which advance our strategy to make spine surgery more intelligent.

Our primary corporate offices are located in Broomfield, Colorado and San Diego, California. At our San Diego campus, we also maintain a state-of-the-art cadaver operating theatre and research and development labs designed to accommodate the training of spine surgeons through our Clinical Professional Development education programs. In addition, we have surgeon training and education facilities in the New York Metropolitan area, and internationally in Singapore and Amsterdam. Our location in Amsterdam also serves as our international headquarters. Our primary distribution and warehousing operations are located in our facility in Memphis, Tennessee, which due to its proximity to overnight third-party transporters, helps facilitate rapid delivery of our products and surgical instruments for surgeries. Additionally, our primary manufacturing facility, which produces spinal implants and fixation products, is located in West Carrollton, Ohio.

**Proposed Merger with Globus Medical**

On February 8, 2023, we entered into an Agreement and Plan of Merger, or the Merger Agreement, with Globus Medical and Zebra Merger Sub, Inc., a wholly-owned subsidiary of Globus Medical, or Merger Sub. The Merger Agreement provides, among other things, that subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will merge with and into NuVasive, referred to as the Merger, with NuVasive surviving the Merger as a wholly-owned subsidiary of Globus Medical, such transaction referred to as the Combination.

The closing of the Combination is subject to certain customary conditions, including the approval of both parties' stockholders and the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or the HSR Act. For more information, see Note 12, Subsequent Events, in the Notes to the Consolidated Financial Statements included in this Annual Report.

**COVID-19 Impact on Our Business**

The COVID-19 pandemic significantly impacted our business and results of operations in fiscal years 2020, 2021 and 2022. At the height of the COVID-19 pandemic, governments implemented extraordinary measures to slow the spread of the virus, which included the mandatory closure of businesses, restrictions on travel and gatherings, quarantine and physical distancing requirements, and vaccine mandates. In addition, many government agencies in conjunction with hospitals and healthcare systems deferred, reduced, or suspended elective surgical procedures due to COVID-19. While certain spine surgeries are deemed essential and certain surgeries, like in cases of trauma, cannot be delayed, we experienced a significant reduction in procedural volumes as hospital systems and/or patients deferred spine surgery procedures.

Despite the impact COVID-19 has had on our business, we continued to invest in research and development, invest in our people, improve operating processes, and take steps to position ourselves for long-term success. During 2020, we raised additional capital to solidify our financial foundation. Notwithstanding COVID-19, we continued to train and educate surgeons on our products and less-invasive surgical techniques through live and virtual settings. Further, we remained focused on developing innovative solutions and enabling technologies to drive increased adoption of less-invasive surgery, including the commercialization of the Simplify Cervical Disc for cTDR procedures and the Pulse platform in 2021. While many countries have removed or reduced the restrictions initially implemented in response to COVID-19, the pandemic continues to evolve, and its impact on our business will depend on several factors that are highly uncertain and unpredictable, including, the efficacy and adoption of vaccines and treatments, future resurgences of the virus and its variants, the imposition of government lockdowns, quarantine and physical distancing requirements, patient capacity at hospitals and healthcare systems, the duration and severity of healthcare worker shortages, and the willingness and ability of patients to seek care and treatment due to safety concerns or financial hardship. Further discussion of the potential impacts on our business from the COVID-19 pandemic is provided under Part I, Item 1A – Risk Factors.

**Our Strategy**

We continue to pursue the following strategies in order to improve our competitive position and grow our business:

- *Advance our Position in Less-Invasive Spine Surgery.* We believe that surgeons, providers and patients will continue to recognize the benefits of less-invasive surgical techniques and our procedurally integrated solutions will promote better clinical, financial, and operational outcomes. It has been demonstrated clinically that XLIF and other less-invasive procedures facilitated by our procedurally integrated solutions decrease trauma and blood loss, and lead to faster overall patient recovery times compared to traditional, open spine surgery procedures. We believe our solutions have the potential to dramatically improve the clinical results of spine surgery and drive better reproducibility through enabling technologies. Because of this belief, we dedicate significant resources to researching clinical outcomes data as well as educating surgeons, providers and patients on the benefits of our products, and we intend to continue to capitalize on the growing demand for less-invasive surgical procedures.
- *Continue to Develop Innovative Solutions and Broaden our Portfolio of Offerings.* One of our core competencies is our ability to rapidly develop and commercialize innovative spine surgery solutions to fulfill unmet clinical needs while improving clinical, financial, and operational outcomes. In the past several years, we have introduced a continual flow of new products and product enhancements for spinal fusion surgery, including a broader portfolio of offerings for traditional, open surgery procedures. Following our acquisition of Simplify Medical Pty Limited, or Simplify Medical, in February 2021, we also offer motion-preserving cervical artificial disc technology for cTDR procedures. With our comprehensive portfolio of product and service offerings, we can offer our customers procedural solutions for the cervical, thoracic and lumbar spine, and for various surgical approaches that distinguishes us from traditional spine implant companies. As part of this strategy, we must continue to vigorously protect and defend the intellectual property related to our innovative products.

- *Strengthen Proceduralization Supported by Enabling Technologies and Surgeon Education.* We believe through continued innovation and a focus on providing comprehensive procedural solutions integrated with enabling technologies for our customers, we will simultaneously increase our market share and improve patient care. In 2019, we launched the X360 portfolio, a comprehensive lateral approach to single-position surgery that leverages advanced techniques and technologies to deliver patient specific-care while enhancing operating room workflow and efficiency. In 2020, we launched the C360 portfolio, a comprehensive procedurally integrated solution to anterior and posterior cervical spine surgery. In 2021, we acquired Simplify Medical and incorporated the Simplify Cervical Disc into our C360 portfolio. In addition, in the third quarter of 2021, we launched the Pulse platform, which together with other enabling technology, establishes the foundation for our strategy to use data and technology to make spine surgery more intelligent. The Pulse platform is a software ecosystem that integrates multiple hardware technologies, including: radiation reduction, imaging enhancement, rod bending, navigation, IONM, and spinal alignment tools. The Pulse platform provides surgeons with integrated technologies that can enable faster decision-making and streamline operating room workflow. In 2022, we launched the P360 portfolio, a comprehensive solution for surgery from the prone position, including the NuVasive Tube System. These and other launches of procedural systems and enhancements to existing solutions which integrate enabling technologies expand the ability of surgeons to use our products in a variety of surgical approaches and procedures for the spine. We believe that our surgeon education and training program is a strategic differentiator for us, and our Clinical Professional Development team has developed comprehensive, in-person training labs and virtual content to demonstrate the benefits of our innovative products and procedures. Education and training of surgeons will continue to be a focus as we advance our less-invasive solutions integrated with enabling technology.
- *Expand the Reach of Our Sales Force and Drive Growth Globally.* We believe there is significant opportunity for us to further penetrate existing markets and to enter new markets by increasing the size and geographic scope of our sales force, particularly in international markets. Our global sales force consists of a mix of directly employed and independent sales representatives who are responsible for particular geographic regions. Outside of the United States, or U.S., we also utilize third-party distributors. We expect to expand into new geographic territories and to deepen our penetration in existing territories in the U.S. Internationally, we intend to make investments in infrastructure in order to better support existing markets and to drive expansion into new markets.
- *Selectively License or Acquire Complementary Products and Technologies.* In addition to building our company through internal product development and global expansion efforts, we intend to selectively license or acquire complementary products and technologies and enter into strategic relationships designed to keep us on the forefront of innovation and to pursue opportunities that allow us to expand our presence in international markets. Over the past several years, we have acquired companies and technologies to grow our product portfolio, enter new market segments, expand our international presence, and enhance our enabling technology platforms. In furtherance of our enabling technology strategy, we entered into a Spine Precision Partnership with Siemens Healthineers in 2018 to advance operating room workflow efficiency and provide increased precision in the delivery of minimally-disruptive spine surgery technologies through the integration of our Pulse platform with Siemens Healthineers' mobile 3D C-arm, Cios Spin. In 2021, we expanded and differentiated our cervical portfolio through the acquisition of Simplify Medical, allowing us to address one- and two-level cTDR procedures with the Simplify Cervical Disc. By acquiring complementary products, entering into strategic relationships, and executing on domestic and international footprint expansion opportunities, we believe we can leverage our expertise of bringing new products to market that are intended to improve patient outcomes, simplify or better integrate techniques, reduce hospitalization and rehabilitation times across the globe, and, as a result, reduce overall costs to the healthcare system and continue to grow our global presence.
- *Provide Intraoperative Neuromonitoring Capabilities.* Monitoring the health of the nervous system during spinal surgery has been a key component of our strategy of product differentiation since early in our development. Over time, surgeon and hospital demand for neuromonitoring has increased along with the advancement of technologies and techniques used in IONM. We believe our proprietary neuromonitoring platform is a differentiator in the market and is unique in its ability to provide information about the directionality and proximity of nerves. Through our NuVasive Clinical Services, or NCS, subsidiary, we have expanded the scale of our IONM services business and solidified our position as one of the largest providers of outsourced IONM services and are driving increased utilization of our neuromonitoring platform.

**Industry Background and Market**

The spine is the core of the human skeleton and provides a crucial balance between structural support and flexibility. It consists of 33 separate bones called vertebrae that are connected together by connective tissue (defined as bone, muscle, or ligament) to form a column and to permit a normal range of motion. The spinal cord, the body's central nerve system, is enclosed within the spinal column. Vertebrae are paired into what are called motion segments that move by means of three joints: two facet joints and one spine disc. The four major categories of spine disorders are degenerative conditions, deformities, trauma and tumors. The largest market and the focus of our business historically are degenerative conditions of the facet joints and the intervertebral disc space. These two conditions can result in instability and pressure on the nerve roots as they exit the spinal column, causing back or neck pain or radiating pain in the arms or legs.

The prescribed treatment for back or neck pain depends on the severity and duration of the disorder. Initially, physicians will prescribe non-operative, conservative procedures including bed rest, medication, lifestyle modification, exercise, physical therapy, chiropractic care and steroid injections. In many cases, non-operative treatment options are effective; however, some patients eventually require spine fusion surgery. The vast majority of spine fusion surgeries are performed using traditional open surgical techniques from either the anterior or posterior of the patient. These traditional open surgical approaches generally require a large incision in the patient's abdomen or back in order to enable the surgeon to access and see the spine and surrounding area. These open procedures are invasive, lengthy and complex, and typically result in significant blood loss, extensive tissue damage and lengthy patient hospitalization and rehabilitation.

We believe the market for procedurally integrated spine surgery solutions will continue to grow over the long term, and we also believe our market share will increase, because of the following market dynamics:

- *Demand for Surgical Alternatives with Less Tissue Disruption.* As has been demonstrated in other surgical markets, we anticipate the broader acceptance of less-invasive surgical treatments with reduced tissue disruption and patient trauma will result in increased demand.
- *U.S. Population Demographics.* The population segment most likely to experience back pain is expected to increase as a result of aging "baby boomers" (people born between 1946 and 1965). This large population segment is expected to increasingly demand a quicker return to activities of daily living following surgery.
- *Access to Care in Emerging Markets.* Healthcare reforms in many emerging markets are expanding access to treatments to a greater proportion of their populations, which is expected to continue to drive strong increases in demand for healthcare-related product volumes. Increasing economic affluence in key developing regions will further drive demand for healthcare treatments.
- *Vendor/Hospital Consolidation.* Given the continued economic pressures facing hospitals and healthcare systems, we anticipate broader consolidation of vendors in the spine space. We believe we are well-positioned to benefit from this vendor consolidation given our size, scale and breadth of our portfolio.

Although the market for procedurally integrated spine surgery solutions should continue to grow over the long term, economic, political and regulatory influences are subjecting our industry to significant changes that may slow the growth rate of the spine surgery market.

**Surgical Alternatives with Less Tissue Disruption**

The benefits of less-invasive surgical procedures in other areas of orthopedics have significantly contributed to the strong and growing demand for surgical alternatives with less tissue disruption of the spine. Surgeons and hospitals seek spine procedures that result in fewer operative and postoperative complications and decreased patient hospitalization periods. Patients seek procedures that reduce trauma, allow for faster recovery times and result in more favorable and predictable clinical outcomes. Despite patient and doctor demands, the rate of adoption of alternative surgical procedures with less tissue disruption has been relatively slow with respect to the spine. Currently, the majority of spine surgery patients are treated with traditional open and invasive techniques.

A principal factor contributing to spine surgeons' slow adoption of traditional "minimally invasive" spine procedure alternatives has been inconsistent outcomes driven by the limited or lack of direct access to and visibility of the surgical anatomy, and the associated complex instruments that have been required to perform these procedures. Most traditional minimally invasive spine surgery systems do not allow the surgeon to directly view the spine and the relevant pathology point and, as such, provide only restrictive visualization through a camera system or endoscope, while also requiring the use of complex surgical techniques. In addition, most traditional minimally invasive spine surgery systems use complex or highly customized surgical instruments that require special training and the completion of a large number of clinical cases before the surgeon becomes proficient using the system, which is an impediment and/or deterrent to their adoption.

**Our Commercial Products**

Our procedurally integrated spine surgery solutions are designed to allow surgeons to perform a wide range of less-invasive surgical procedures with less tissue disruption of the spine, in all regions of the spine and from various surgical approaches, while overcoming the shortcomings of traditional minimally invasive spine surgical techniques. Our solutions are designed to treat a wide range of spinal pathologies while accommodating a surgeon's preferred surgical technique. We believe our solutions can improve clinical, financial, and operational outcomes of spine surgery and should continue to drive an expanded number of minimally disruptive procedures performed, and make less-invasive techniques the standard of care in spine fusion and non-fusion surgery.

Our products and technology facilitate less-invasive applications of the following spine surgery procedures, among others:

- Decompression, which is removal of a portion of bone or disc from over or under the nerve root to relieve impingement of the nerve;
- Lumbar and thoracic fusion procedures in which the surgeon approaches the spine through the patient's back (posterior), side (lateral) or abdomen (anterior);
- Cervical fusion procedures, for either the posterior occipito-cervico-thoracic region or the anterior cervical region, and motion-preserving cTDR procedures; and
- Complex cases involving adult and pediatric spinal deformity, trauma and tumor patients.

We offer a comprehensive portfolio of procedurally integrated spine surgery solutions, including surgical access instruments, spinal implants, fixation systems, biologics, and enabling technologies, as well as systems and services for IONM. In addition, we develop and sell magnetically adjustable implant systems for spine and specialized orthopedic procedures.

***Surgical Access Instruments***

We have differentiated surgical access instruments that surgeons use to access the surgical site, including our Maxcess integrated split-blade retractor system, designed to minimize soft tissue disruption during spine surgery. Our Maxcess retractors have a split-blade design consisting of three blades that can be positioned to customize the surgical exposure in the shape and size specific to the surgical requirements rather than the more traditional fixed tube or two-blade designs of traditional minimally invasive spine surgical systems. This split-blade design also provides customizable access to the spine, which allows surgeons to perform surgical procedures using instruments that are similar to those used in open procedures but with a smaller incision and less tissue disruption. The ability to use familiar instruments reduces the learning curve for our procedures and facilitates the adoption of our products. Our system's illumination of the operative corridor aids in providing surgeons with better direct visualization of the patient's anatomy, without the need for additional technology or other special equipment such as endoscopes. Over the years, we have made improvements to our Maxcess systems, including incorporating enabling technologies and improving the blade systems. Our Maxcess products are used in the cervical spine for posterior application and anterior retraction, the lumbar spine for decompressions, transforaminal lumbar interbody fusions, or TLIFs, posterior lumbar interbody fusions, or PLIFs, the thoracolumbar spine for XLIFs, and the thoracic region for tumors and trauma, as well as in adult degenerative scoliosis procedures. Additionally, the Maxcess system is integrated into our X360 procedure which allows surgeons to conduct lateral single-position spine surgery without repositioning the patient, which enhances operating room workflow and efficiency and can reduce time under anesthesia and lower intraoperative risks for the patient.

***Implants and Fixation Systems***

We have many specialized implants and fixation products designed to be used as part of our procedurally integrated solutions. Our portfolio of spinal implants used for intervertebral disc height restoration include implants made from allograft, titanium, and PEEK. These spinal implants come in a variety of shapes, sizes, and lordosis options to accommodate specific approach, pathology, alignment restoration, and anatomical requirements of the patient and the particular fusion procedure. Our Advanced Materials Science portfolio of implants, designed to improve spinal fusion by enhancing the osseointegration and biomechanical properties of implant materials, includes our Modulus porous titanium implants and Cohere and Coalesce porous PEEK implants. Our implants are designed for insertion into the smallest possible space while maximizing surface area contact for fusion. Following our acquisition of Simplify Medical during the first quarter of 2021, we also offer cervical artificial disc technology for cTDR procedures. Our fixation products, including pedicle screws, rods and plates, have been uniquely designed and include a highly differentiated percutaneous minimally invasive solution with advanced guide technology, superior rod insertion options, and multiple reduction capabilities to be delivered through our procedures to provide stabilization of the spine. In particular, the Reline portfolio consists of innovative posterior fixation technology designed to preserve and restore spinal alignment, while addressing a wide range of spinal pathologies. Our Reline portfolio can be used in both traditional open procedures and less-invasive surgical procedures and includes fixation products for cervical, thoracic and lumbar spine, as well as Reline Trauma and Reline Small Stature for complex spinal surgery.

***Biologics***

We offer a variety of biologics that are used to aid in the spinal fusion or bone healing process. The global biologics market in spine surgery consists of autograft (autologous human tissue), allograft (donated human tissue), and a varied offering of synthetic products and growth factors. Our allograft biologics product offerings include Osteocel Plus and Pro, a cellular bone matrix designed to mimic the biologic profile of autograft including mesenchymal stem cells and osteoprogenitor cells to aid in spinal fusion, and Propel DBM (highly moldable demineralized bone matrix putty and gel). Our synthetic biologics product offerings include Formagraft (collagen-based synthetic bone substitute) and AttraX (synthetic bone graft material delivered in putty and other forms).

***Intraoperative Neuromonitoring Systems***

Our IONM systems utilize proprietary software hunting algorithms and graphical user interfaces to provide surgeons with an enhanced and intuitive nerve avoidance system. Our systems function by monitoring changes in electrical signals across muscle groups, which allows us to detect underlying changes in nerve activity. Through our IONM platforms, we give surgeons the option to connect their instruments to a computer system that provides discrete, real-time, surgeon directed and surgeon controlled feedback about the directionality and relative proximity of nerves during surgery. We believe our proprietary IONM platforms are a differentiator in the market and are unique in their ability to provide information about the directionality and proximity of nerves. Our systems analyze and then translate complex neurophysiologic data into simple, useful information to assist the surgeon's clinical decision-making process. Surgeons can connect certain instruments to our IONM systems, thus creating an interactive set of instruments that better enable the safe navigation through the body's nerve anatomy during surgery. The connection is accomplished using a clip that is attached to the instrument, effectively providing the benefits of our IONM systems through an instrument already familiar to the surgeon. Our proprietary software and easy to use graphical user interfaces allow the surgeon to make critical decisions in real time to help enable safer, faster, and more reproducible procedures to achieve improved patient outcomes.

***Intraoperative Neuromonitoring Services***

Through our NCS subsidiary, we provide onsite and remote monitoring of the neurological systems of patients undergoing spinal and brain-related surgeries. Monitoring the health of the nervous system during spinal surgery has been a key component of our strategy of product differentiation since early in our development. Over time, surgeon and hospital demand for neuromonitoring has increased along with the advancement of technologies and techniques used in IONM. Our neurophysiologists are present in the operating room during procedures and work in partnership with supervising physicians who remotely oversee and interpret neurophysiological data gathered via broadband transmission over the internet. Through this service, data can be analyzed in real-time by healthcare professionals for additional interpretation of intraoperative information and oversight, which we believe further improves the safety and reproducibility of spine surgery procedures.

***Enabling Technology***

The integration of enabling technology into our procedural offerings is integral to our strategy. Our investment in enabling technology is focused on our Pulse platform which is designed to further improve clinical, financial, and operational outcomes of spine surgery. Pulse integrates multiple hardware technologies into a single unit of capital equipment with two fixed screens in the operating room. We have incorporated into the Pulse platform existing technologies in our portfolio, including IONM, rod bending, and Lessray image enhancement, which is designed to help surgeons and hospital staff manage radiation exposure by using digital imaging processing technology to generate high resolution images of the surgical field from low resolution images. Pulse also includes navigation, spinal alignment tools, and other features designed to improve operating room workflow for all spine cases. Pulse seeks to facilitate and optimize clinical decision making while maintaining surgeon control through integrated technologies that inform one another—producing a seamless and efficient workflow. Pulse is designed to increase safety, efficiency, and surgical procedure reproducibility, while addressing some of the most common clinical challenges in spine surgery. Pulse offers wireless device capabilities, allowing connectivity and control of the Pulse platform from all members of the surgical team in the operating room. Its extensible architecture can support future surgical applications as we continue to invest and develop this technology platform. Further, our goal is to use technology and data to make spine surgery more intelligent, and we are investing to develop and expand the Pulse platform to include applications and technologies designed to improve pre-operative treatment selection and planning and post-operative workflow and analytics, as well as intra-operative surgical automation and robotics.

***Specialized Orthopedics***

Through our NuVasive Specialized Orthopedics, or NSO, subsidiary, we develop and manufacture magnetically adjustable spine and orthopedics products using the MAGEC technology. Our MAGEC system is designed to overcome the limitations of conventional adjustable rod treatments for early onset scoliosis, or EOS, and reduce the number of surgical procedures required throughout childhood. EOS refers to severely deformed curvatures of the spine diagnosed before the age of ten. EOS is a challenging health issue and can lead to more severe progressive deformities. Surgical treatments for EOS include the use of surgically adjustable expandable rods to control the spine deformity while still allowing the spine to grow until a child reaches an appropriate size or age for a more permanent solution, such as spinal fusion. Surgeries to adjust traditional growing rods are typically performed every six to nine months and are associated with scarring, elevated infection rates, postoperative pain, and impaired mobility as the child heals from surgery. Additionally, these surgeries involve repetitive exposure to general anesthesia, which can delay development and impair long-term cognitive function. Once our magnetically adjustable MAGEC growing rods are surgically implanted in a patient, they can be adjusted non-invasively using an external remote controller. The ability to adjust growing rods without surgical intervention means that EOS patients can be treated with fewer planned surgeries. Our non-invasive adjustment technology enables physicians to perform more frequent adjustments in a non-surgical outpatient setting, thereby improving deformity correction and allowing for optimal spinal growth.

The proprietary MAGEC technology is also the basis for the Precice system, which is designed to support complex orthopedic reconstruction, such as trauma and limb length discrepancy, or LLD. LLD is caused by congenital deformity or injury resulting in one leg being shorter than the other, and large LLDs often require complex treatments including limb lengthening surgery to create equal limb length. The traditional limb lengthening surgical procedure includes the creation of a gap in the bone, or osteotomy, the attachment of wires or pins to the fractured bones, and the passing of the wires or pins through the skin to an external fixator, a scaffold-like frame that surrounds the limb. The external fixator distracts the bone when the patient or a family member manually turns the knobs on the fixator. These adjustments must be performed several times each day such that the bone is lengthened approximately one millimeter per day. Adjustments of the external fixator are very painful and associated with soft tissue disruption, disturbance of the wound healing process of the skin and soft tissue and high rates of pin site infection. In addition, traditional external fixation can result in significant psychosocial comorbidities that reduce quality of life for patients undergoing treatment, including anxiety, social disengagement, sleep disorders, depression and addiction to pain medication. The Precice system uses a specialized intramedullary nail that, once surgically implanted, is lengthened using the MAGEC technology, which enables non-invasive and painless adjustments using a pre-programmed external remote controller. As a result, Precice enables physicians to customize therapy to the needs of the patient over time without the need for surgical re-intervention and provides improved quality of life and satisfaction for patients in need of surgical limb lengthening.

**Research and Development**

Our research and development efforts are primarily focused on developing new technology platforms and further enhancing our existing products to improve and further integrate procedural solutions to address unmet clinical needs while improving clinical, financial, and operational outcomes. Our research and development group has extensive experience in developing products to treat spine pathologies. This group continues to work closely with clinical advisors and spine surgeons to design products and procedural solutions designed to improve patient outcomes, simplify techniques, and reduce patient trauma including subsequent hospitalization and rehabilitation times; and as a result reduce overall costs to patients and the healthcare system.

**International**

As the spine market shifts towards less-invasive surgery and international access to healthcare increases, it should provide us with an opportunity for accelerated growth outside the U.S. Because our procedurally integrated solutions and technologies treat similar pathologies around the world, we are focused on expanding our operations in select international markets. We are investing to tailor our products and technologies to meet varying international patient, surgeon and market requirements. We are also investing in our global infrastructure to adapt alternative distribution channels, to support differing language and customer service requirements, and to provide training and surgeon education in our surgical techniques, instruments, products and technologies to our international customers. We intend to continue to make targeted investments in select international markets in order to increase our commercial reach outside of the U.S. Our international net sales, which exclude Puerto Rico, were $276.1 million, or 23%, of total net sales for the year ended December 31, 2022.

**Sales and Marketing**

In the U.S., we currently sell our procedurally integrated solutions through a combination of exclusive and non-exclusive independent sales representatives and directly-employed sales force. Each member of our U.S. sales force is responsible for a defined territory, with our exclusive independent sales representatives acting as our sole representative in their respective territories. The determination of whether to engage a directly-employed sales representative or an independent sales representative is made on a territory–by-territory basis, with a focus on aligning the sales team with the best skills and experience with local surgeons' needs. Our international sales force is comprised of directly-employed sales representatives, as well as distributors and independent sales representatives. Directly-employed sales representatives make up the majority of our overall sales force.

**Surgeon Training and Education**

We devote significant resources to training and educating surgeons regarding the safety and reproducibility of our surgical techniques and our procedurally integrated solutions. Our surgeon education and training program is led by our Clinical Professional Development team, and integrates surgical training with professional development and enables us to introduce surgeons to our less-invasive approaches to spine surgery. At our campus in San Diego, California, we maintain our West Coast Experience Center, including a state-of-the-art cadaver operating theatre and research and development labs to help educate and train surgeons. In September 2021, we expanded our Clinical Professional Development program with the opening of our East Coast Experience Center in Englewood, New Jersey. At this facility, we host competency-based courses and cadaveric trainings on our procedurally integrated solutions and maintain a dedicated demonstration lab to showcase our Pulse platform. Internationally, we provide surgeon training and education in Amsterdam, the Netherlands, to support surgeons primarily within the European region. In June 2022, we opened our Singapore Experience Center to support the Asia-Pacific region. Additionally, we offer educational and training courses globally through in-person formats and via virtual content, including through virtual conferences, video and social channels, to demonstrate the benefits of our innovative products and procedures.

**Manufacturing and Supply**

We manufacture a substantial portion of our implant products in our facility in West Carrollton, Ohio. We also maintain a network of third-party suppliers for certain implants and surgical instruments. Our outsourcing strategy is targeted at companies that meet U.S. Food and Drug Administration, or FDA, International Organization for Standardization, or ISO, and quality standards supported by internal policies and procedures. Supplier performance is maintained and managed through a supplier qualification, performance management and corrective action program intended to ensure that all of our product requirements are met or exceeded.

Our products are inspected, packaged and labeled, as needed, at our qualified suppliers or at our facilities in Memphis, Tennessee, West Carrollton, Ohio, and Aliso Viejo, California. Under our existing contracts with third-party manufacturers, we reserve the right to inspect and assure conformance of each product and product component to our specifications.

We currently rely on several tissue banks as our suppliers of allograft tissue implants, including for our Osteocel Plus and Osteocel Pro product lines. Like our relationships with our device manufacturing suppliers, we subject our tissue processing suppliers to the same quality criteria in terms of selection, qualification, and verification of processed tissue quality upon receipt of goods, as well as hold them accountable to compliance with FDA regulations, state requirements, and voluntary industry standards (such as those put forward by the American Association of Tissue Banks).

We rely on two suppliers for PEEK, which comprises many of our partial vertebral body replacement and interbody product lines. We also work with a limited number of suppliers for certain components of our enabling technology and IONM platforms and continue to develop redundancies for critical components within those supply chains.

We continue to experience global supply chain disruptions caused by the COVID-19 pandemic and other macroeconomic conditions. While we have largely been able to mitigate the impact, we have experienced challenges associated with material and component availability, longer shipping and delivery times, and in some cases, higher costs. In the event that we are unable to obtain sufficient quantities of raw materials or components on commercially reasonable terms or in a timely manner, our ability to manufacture our products on a timely and cost-competitive basis may be compromised.

We, and our third-party manufacturers, are subject to the quality system regulations of the FDA, state regulations (such as the regulations promulgated by the California Department of Health Services), and regulations promulgated by foreign regulatory bodies (such as in the European Union). For tissue products, we are FDA registered and licensed in the States of California, Delaware, Florida, Illinois, Maryland, New York, and Oregon. For our device implants and instruments, we are FDA registered, California licensed, CE marked and ISO certified. CE is an abbreviation for "Conformité Européenne" or European Conformity, and is the registration marking designating that a device can be commercially distributed throughout Europe. Our facilities and the facilities of our third-party manufacturers are subject to periodic announced and unannounced inspections by regulatory authorities, and may undergo compliance inspections conducted by the FDA, state, and/or international regulatory agencies for, among other things, conformance to Quality System Regulations and Current Good Manufacturing Practice requirements and other foreign or international standards.

**Surgical Instrument, Implant Sets and Equipment Sales**

For many of our customers, we provide surgical instrumentation sets, including both implants and instruments, as well as our IONM systems in a manner tailored to fulfill our customer's obligations to meet surgery schedules. We do not generally receive separate economic value specific to the surgical instrument sets from the surgeons or hospitals that utilize them. In many cases, once the surgery is finished, the surgical instrument sets are returned to us, and we prepare them for shipment to meet future surgeries.

We complement this implant and instrument shipment model with field-based instrument assets. This hybrid strategy is designed to improve customer service, minimize backlogs, increase asset turns, optimize freight costs, and maximize cash flow. Our pool of surgical equipment we make available to hospitals continues to increase as we increase our product offering, expand our distribution channels and increase the market penetration of our products. These surgical instrumentation and implant sets are important to the growth of our business, and we anticipate additional investments in such assets going forward.

In certain cases, we will sell either surgical instruments, implant sets or both to our customers. While this does not constitute a material component of our business, as customer penetration and volume increases, these sales of sets allow our customers to increase the amount of surgical volume performed locally. Additionally, we offer flexibility to customers for our capital equipment by offering capital sales and leasing arrangements. We do not have a long history of selling, leasing or servicing capital equipment, and we have invested and intend to continue to invest in building resources and expertise in this area. Selling and leasing of capital equipment do not make up a material portion of our total net sales.

**Intellectual Property**

We rely on a combination of patent, trademark, copyright, trade secret and other intellectual property laws, nondisclosure agreements and other measures to protect our intellectual property rights. In order to have a competitive advantage, we must develop and maintain the proprietary aspects of our technologies. We require our employees, consultants and advisors to execute confidentiality agreements in connection with their employment, consulting or advisory relationships with us. We also require our employees, consultants and advisors who we expect to work on our products to agree to disclose and assign to us all inventions conceived using our property or which relate to our business. Despite any measures taken to protect our intellectual property, unauthorized parties may attempt to copy aspects of our products or to obtain and use information that we regard as proprietary.

***Patents***

As of December 31, 2022, we had over 1,500 issued patents and pending applications world-wide, including over 750 issued U.S. patents. Our issued patents and pending applications cover, among other things:

- Surgical access instrumentation and methodology, relating to our XLIF and X360 procedures and aspects thereof, as well as technologies and methods related to our C360 portfolio;
- Artificial discs, including the Simplify Cervical Disc and related instrumentation;
- Neurophysiology enabled instrumentation and methodology, including pedicle screw test systems, software hunting algorithms, navigated guidance, rod bending and surgical access systems;
- Spinal implants and related instrumentation and targeting systems;
- Biologics, including Osteocel Plus and Osteocel Pro, Formagraft and AttraX;
- Magnetic technology for non-invasive distraction of an implanted device, including the MAGEC technology platform;
- Digital imaging processing technology that generates high resolution images of the surgical field from low resolution scans, including the Lessray technology platform;
- Porous PEEK technology, included in our Cohere and Coalesce spinal implants; and
- Surgical navigation and robotics technology.

Our issued patents began to expire in 2018. We do not believe that the expiration of any single patent is likely to significantly affect our intellectual property position.

The medical device industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. Patent litigation can involve complex factual and legal questions, can be expensive, and its outcome is uncertain. Our success will depend in part on our not infringing patents issued to others, including our competitors and potential competitors. As the number of entrants into our market increases, the possibility of future patent infringement claims against us grows. While we make extensive efforts to ensure that our products do not infringe other parties' patents and proprietary rights, our products and methods may be covered by patents held by our competitors. There are numerous risks associated with our intellectual property. For a complete discussion of these risks, please see the "Risk Factors" section of this Annual Report.

***Trademarks***

As of December 31, 2022, we had over 400 trademark registrations in both domestic and foreign regions.

**Competition**

Competition within the industry is primarily based on technology, innovation, quality, reputation and customer service. In our core spine business, our significant competitors are Medtronic, DePuy/Synthes, a Johnson & Johnson company, Stryker Spine, Globus Medical, and ZimVie, which together represent a significant portion of the spine market. We also face competition from a significant number of smaller spine companies with more limited product offerings and geographic reach than our larger competitors. These companies, who represent intense competition in specific markets, include Orthofix Medical, Alphatec Holdings and others. With respect to our neuromonitoring and other enabling technologies, we primarily compete with Medtronic and Globus Medical. Our NCS subsidiary competes with SpecialtyCare, numerous smaller and regional neuromonitoring companies as well as insourced neuromonitoring functions operated by hospitals. Our NSO subsidiary competes with divisions of traditional orthopedics companies, including Stryker Orthopedics and Smith & Nephew, as well as Orthofix Medical and other smaller companies that offer specialized orthopedics solutions.

**The U.S. Government Regulation**

Our products are medical devices and human tissue products subject to extensive regulation by the FDA and other regulatory bodies both inside and outside of the U.S. Each of these agencies requires us to comply with laws and regulations governing the development, testing, manufacturing, storage, labeling, marketing and distribution of our products.

***FDA's Premarket Clearance and Approval Requirements***

Unless an exemption applies, each medical device that we market and sell in the U.S. must first receive either 510(k) clearance (by submitting a premarket notification) or premarket approval (by filing a premarket approval application, or PMA) from the FDA. In addition, certain modifications to marketed devices may require 510(k) clearance or approval of a PMA supplement. The FDA will clear marketing of a medical device through the 510(k) process if it is demonstrated that the new product is substantially equivalent to other 510(k)-cleared products (referred to as a predicate device). The FDA's 510(k) review process usually takes between three and six months from the date the application is submitted, but may last longer. The process of obtaining PMA approval is much more costly, lengthy and difficult than the 510(k) clearance process and generally takes between one and three years, or even longer, from the time the application is submitted to the FDA until any approval is obtained. In addition, a clinical trial is almost always required to support a PMA application, while clinical trial data is less often required to support a 510(k) premarket notification.

In 2018, the FDA issued draft guidance and announced steps to modernize the 510(k) clearance pathway that, if finalized and implemented, could impact the ability of medical device manufacturers to obtain or maintain 510(k) clearance for devices. Among other initiatives, the FDA has proposed to "sunset" the use of older predicate devices for purposes of comparison in new device 510(k) clearance submissions. If we cannot establish that a new or modified product is substantially equivalent to a predicate device, we may be required to seek pre-market approval through the PMA process. There are numerous risks associated with the PMA process, which typically requires conducting clinical trials with high costs and uncertain outcomes. For a complete discussion of these risks, please see the "Risk Factors" section of this Annual Report.

***Human Cell, Tissue, and Cellular and Tissue Based Products***

Our allograft products, including our Triad and ExtenSure, and our Osteocel Plus, Osteocel Pro, and Propel products, are regulated by the FDA as Human Cell, Tissue, and Cellular and Tissue Based Products. FDA regulations do not currently require these minimally manipulated human tissue-based products to be subjected to a premarket approval or premarket notification process before they can be legally marketed if they are deemed to meet the requirements of a "361" product under the Public Health Safety Act.

We are required to register with the FDA as a provider of such products and to list these products with the FDA and comply with its Current Good Tissue Practices for Human Cell, Tissue, and Cellular- and Tissue-Based Product Establishments. The FDA periodically inspects tissue facilities to determine compliance with these requirements. Entities that provide us with allograft bone tissue are responsible for performing donor recovery, donor screening, donor testing, processing, and packaging and our compliance with those aspects of the Current Good Tissue Practices regulations that regulate those functions are dependent upon the actions of these independent entities.

The procurement and transplantation of allograft bone tissue is subject to U.S. federal law pursuant to the National Organ Transplant Act, or NOTA, a criminal statute that prohibits the purchase and sale of human organs used in human transplantation - including bone and related tissue - for "valuable consideration" (as defined in the NOTA). The NOTA permits reasonable payments associated with the removal, transportation, processing, preservation, quality control, implantation and storage of human bone tissue. With the exception of removal and implantation, we provide services, directly or indirectly, in all of these areas. We make payments to vendors in consideration for the services they provide in connection with the recovery and screening of donors. Failure to comply with the requirements of NOTA could result in enforcement action against us.

The procurement of human tissue is also subject to state anatomical gift acts and some states have statutes similar to NOTA. In addition, some states require that tissue processors be licensed by that state. Failure to comply with state laws could also result in enforcement action against us.

***Continuing FDA Regulation***

After a device is placed on the market, numerous regulatory requirements continue to apply. These regulatory requirements could include, but are not limited to, the following:

- device listing and establishment registration;
- adherence to the Quality System Regulation which requires stringent design, testing, control, documentation and other quality assurance procedures;
- labeling requirements and FDA prohibitions against the promotion of off-label uses or indications;
- adverse event reporting;

- post-approval restrictions or conditions, which could include post-approval clinical trials or other required testing;
- post-market surveillance requirements;
- the FDA's recall authority, whereby it can ask for, or require, the recall of products from the market; and
- requirements relating to voluntary corrections or removals.

Failure to comply with applicable regulatory requirements can result in fines and other enforcement actions by the FDA, which could adversely impact our business.

We are also subject to announced and unannounced inspections by the FDA, the California Food and Drug Branch, American Association of Tissue Banks, as well as other regulatory agencies overseeing the implementation and adherence of applicable state and federal device and tissue licensing regulations. These inspections may include our manufacturing and subcontractors' facilities.

Pursuant to FDA regulations, we can only market our products for cleared or approved uses. Although surgeons are permitted to use medical devices for indications other than those cleared or approved by the FDA based on their medical judgment, we are prohibited from marketing or promoting products for such "off-label" uses.

***Healthcare Regulation and Commercial Compliance***

The healthcare industry is highly regulated and changes in laws and regulations can be significant. The federal government and all states in which we currently operate regulate various aspects of our business. Changes in the law or new interpretation of existing laws can have a material effect on our permissible activities, the relative costs associated with doing business and the amount of reimbursement by government and other third-party payers.

*Anti-Kickback Statute*

We are subject to the federal Anti-Kickback Statute which, among other things, prohibits the knowing and willful solicitation, offer, payment or receipt of any remuneration, direct or indirect, in cash or in kind, in return for, or to induce the referral of patients for, items or services covered by Medicare, Medicaid and certain other governmental health programs. Under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or ACA, neither knowledge of the Anti-Kickback Statute nor the specific intent to violate the law is a requirement for being found in violation of such laws. Violation of the Anti-Kickback Statute may result in civil or criminal penalties and exclusion from Medicare, Medicaid and other federal healthcare programs, and now provides a basis for liability under the False Claims Act. Many states have enacted similar statutes, which are not limited to items and services paid for under Medicare or a federally funded healthcare program. We believe our operations materially comply with the anti-kickback laws; however, because these provisions are interpreted broadly by regulatory authorities, we cannot be assured that law enforcement officials or others will not challenge our operations under these statutes.

*Federal False Claims Act*

The Federal False Claims Act (in particular its "qui tam" or "whistleblower" provisions) allows private individuals to bring actions in the name of the U.S. government alleging that a defendant has made false claims for payment from federal funds. In addition, various states are considering enacting or have enacted laws modeled after the Federal False Claims Act, penalizing false claims against state funds.

*Health Insurance Portability and Accountability Act*

Under the Health Insurance Portability and Accountability Act of 1996, as was amended in 2005 and in 2009, or HIPAA, a Covered Entity is required to adhere to certain requirements regarding the use, disclosure and security of protected health information, or PHI. In the past, HIPAA has generally affected us indirectly, as NuVasive is generally neither a Covered Entity nor a Business Associate, as further defined under HIPAA, to Covered Entities, except that our provision of IONM services through various subsidiaries may create a Business Associate relationship; additionally, we treat our IONM service business and Puerto Rico subsidiary as a Covered Entity. Regardless of Covered Entity status under HIPAA, in those cases where patient data is received, NuVasive is committed to maintaining the security and privacy of PHI. The potential for enforcement action against us is now greater, as the U.S. Department of Health and Human Services, or HHS, can take action directly against Business Associates. Thus, while we believe we are and will be in compliance with all required HIPAA standards, there is no guarantee that the government will agree. Enforcement actions can be costly and interrupt regular operations of our business.

*Foreign Corrupt Practices Act*

The U.S. and foreign government regulators have increased regulation, enforcement, inspections and governmental investigations of the medical device industry, including increased U.S. government oversight and enforcement of the Foreign Corrupt Practices Act, or FCPA. The FCPA and similar anti-bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. The FCPA also imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments. If the U.S. or another foreign governmental authority were to conclude that we are not in compliance with applicable laws or regulations, such governmental authority can impose fines, delay or suspend regulatory clearances, institute proceedings to detain or seize our products, issue a recall, impose operating restrictions, enjoin future violations and assess civil penalties against us or our officers or employees, and can recommend criminal prosecution to the U.S. Department of Justice. Moreover, governmental authorities can ban or request the recall, repair, replacement or refund of the cost of any device or product we manufacture or distribute. We are also potentially subject to the UK Bribery Act, which would also subject us to the imposition of civil and criminal fines. Any of the foregoing actions could result in decreased sales as a result of negative publicity and product liability claims, and could have a material adverse effect on our financial condition, results of operations and prospects.

*Physician Payments Sunshine Act of 2009 (Sunshine Act)*

The Sunshine Act was enacted into law in 2010 and requires public disclosure to the U.S. government of payments to physicians and teaching hospitals, including in-kind transfers of value such as free gifts or meals. The Act also provides penalties for non-compliance. The Sunshine Act requires that we file an annual report on March 31 of a calendar year for the transfers of value incurred for the prior calendar year. This law, along with various international and individual state reporting requirements, such as in Massachusetts and Vermont, increases the possibility that a healthcare company may run afoul of one or more of the requirements.

*Compliance Program*

A compliance program is a set of internal controls established by a company to prevent and/or detect any non-compliant activities and to address properly those issues that may be discovered. The U.S. government has recommended that healthcare companies, among others, develop and maintain an effective compliance program to reduce the likelihood of any such non-compliance by the company, its employees, agents and contractors. In addition, some states, such as Massachusetts and California, now require certain healthcare companies to have a formal compliance program in place in order to do business within the state. For years, we have maintained a compliance program structured to meet the requirements of the federal sentencing guidelines for an effective compliance program and the model compliance program guidance promulgated by HHS over the years. Our program includes, but is not limited to, a Code of Conduct, designation of a compliance officer, oversight by a designated committee of our Board of Directors, policies and procedures, a confidential disclosure method (a hotline), and conducting periodic compliance audits.

**Foreign Government Regulation**

Sales of medical devices outside the U.S. are subject to foreign government regulations, which vary substantially from country to country. The time required to obtain clearance or approval by a foreign country may be longer or shorter than that of the FDA, and the requirements may differ.

The European Union requires that manufacturers of medical devices obtain the right to bear the CE marking which designates compliance with existing directives and standards regulating the design, manufacture, and distribution of medical devices in member countries of the European Union. The method of assessing conformity varies depending on the classification of the product, but typically involves a combination of self-assessment by the manufacturer and a third-party assessment by an accredited “Notified Body”. This third-party assessment consists of an audit of the manufacturer’s quality system and technical review of the manufacturer’s product. We have now successfully passed several Notified Body audits since our original certification in 2001, granting us ISO certification and allowing the CE conformity marking to be applied to certain of our devices.

The European Union has also adopted the EU Medical Device Regulation, or MDR, which replaced existing directives and imposes stricter requirements for the marketing and sale of medical devices, including new clinical evaluation, quality system, and post-market surveillance requirements. Effective May 2021, medical devices marketed in the European Union require certification according to these new requirements, except that devices with valid CE certificates, issued pursuant to the Medical Device Directive, or MDD, before May 2021, may be placed on the market until May 2024. In February 2023, the European Parliament approved a proposal by the European Commission which further extends the transition period from May 2024 to December 2027 or December 2028, depending on the device classification. Complying with this new regulation will require us to incur significant costs and failure to meet the requirements of the regulation could adversely impact our business in the European Union and other countries that utilize or rely on European Union requirements for medical device registrations.

Following a national referendum and enactment of legislation by the government of the United Kingdom, or the UK, the UK formally withdrew from the European Union and ratified a trade and cooperation agreement governing its future relationship with the European Union. The agreement addresses trade, economic arrangements, law enforcement, judicial cooperation, and a governance framework, including procedures for dispute resolution, among other things. Because the agreement merely sets forth a framework in many respects and will require complex additional bilateral negotiations between the UK and the European Union, significant political and economic uncertainty remains about how the precise terms of the relationship between the parties will differ from the terms before withdrawal. Further, pursuant to guidance issued by the UK Government, the Medicines and Healthcare products Regulatory Agency, or MHRA, became the standalone medicines and medical devices regulator for the UK as of January 1, 2021. A new mark referred to as UKCA, or UK Conformity Assessed, has also been introduced and will replace the CE conformity mark in the UK. UK Approved Bodies designated by the MHRA will conduct conformity assessments against applicable requirements of the UKCA mark. Obtaining the UKCA conformity mark is optional from January 2021 and will have rolling requirements for MDD/MDR certified devices through 2027. Although CE conformity marking and certificates issued by Notified Bodies will continue to be recognized in the UK through 2027, all medical devices were required to be registered with the MHRA as of January 1, 2021 in accordance with the provided grace period depending on the product risk classification. Additionally, for manufacturers based outside of the UK, a single UK Responsible Person with a place of business in the UK must be established. Complying with this new regulatory framework will require us to invest in additional resources and could be expensive, time-consuming and disruptive to our existing operations in the UK.

In 2014, the Japanese government made revisions to the Pharmaceutical Affairs Law (now called PMD Act) that made significant changes to the preapproval regulatory systems. These changes have - in part - stipulated that, in addition to obtaining a manufacturing or import approval from the Ministry of Health, Labor and Welfare, certain low-risk medical devices can now be evaluated by third-party organizations. Based on the risk-based classification, manufacturers are provided three procedures for satisfying the PMD Act requirements prior to placing products on the market: Pre-market Submission, or Todokede; Pre-market Certification, or Ninsho; and Pre-market Approval, or Shonin. NuVasive markets devices in Japan that are assessed by both government entities and third-party organizations using all three procedures in place for manufacturers. The level of review and time line for medical device approval depends on the risk-based classification and subsequent regulatory procedure that the medical device is aligned based on assessment against the current PMD Act. Manufacturers must also obtain a manufacturing or import license from the prefectural government prior to importing medical devices. We also pursue authorizations required by the prefectural government as required.

Device and tissue premarket approval and/or registration and/or facility licensing requirements also exist in other markets where international NuVasive facilities are established and/or where we may conduct business, including, but not limited to, Southeast Asia, Australia, and Latin America. Such requirements vary by country and NuVasive has established procedures to drive its compliance with these requirements.

Data protection laws, including the EU General Data Protection Regulation, or GDPR, also apply to our international operations. The GDPR requires, among other things, obligations and restrictions on the ability to collect, analyze and transfer EU personal data and the prompt notice of data breaches to data subjects and supervisory authorities in certain circumstances. These data protection regulations create a range of compliance obligations and permit substantial fines for noncompliance.

**Third-Party Reimbursement**

Broadly speaking, payer pushback on spine surgery and IONM services in the U.S. has increased in the recent past, and we believe this has had an overall dampening effect on spine procedure volumes and prices.

We expect that sales volumes and prices of our products and services will continue to be largely dependent on the availability of reimbursement from third-party payers, such as governmental programs, for example, Medicare and Medicaid, private insurance plans, accountable care organizations and managed care programs. Reimbursement is contingent on established coding for a given procedure, coverage of the codes by the third-party payers, and adequate payment for the resources used.

Physician coding for procedures is established by the American Medical Association, or AMA. For coding related to spine surgery, the North American Spine Society, or NASS, is the primary liaison to the AMA. In July of 2006, NASS established the proper physician coding for the XLIF procedure by declaring it to be encompassed in existing codes that describe an anterolateral approach to the spine. This position was confirmed in a formal statement by NASS in January 2010. Hospital coding is established by the Centers for Medicare & Medicaid Services. XLIF is included in the nomenclature for hospital codes as an additional descriptor under long standing codes. All physician and hospital coding is subject to change which could impact reimbursement and physician practice behavior.

Independent of the coding status, third-party payers may deny coverage based on their own criteria, including if they feel that a device or procedure is not well established clinically, is not the most cost-effective treatment available, or is used for an unapproved indication. At various times in the past, certain insurance providers have adopted policies of not providing reimbursement for the XLIF procedure. We have worked with our surgeon customers and NASS who, in turn, have worked with these insurance providers to supply the information, explanation and clinical data they require to categorize the XLIF procedure as a procedure entitled to reimbursement under their policies. At present, most major health insurance companies in the U.S. provide reimbursement for XLIF procedures.

However, certain carriers, large and small, may have policies significantly limiting coverage of XLIF, Interlaminar Lumbar Interbody Fusion, or ILIF, Osteocel Plus and Osteocel Pro, cervical interbody implants, and/or other procedures, products or services that we offer. We will continue to provide resources to patients, surgeons, hospitals, and insurers in order to ensure optimum patient care and clarity regarding reimbursement and work to remove any and all non-coverage policies. National and regional coverage policy decisions are subject to unforeseeable change and have the potential to impact physician behavior and reimbursement for physician services. We cannot offer definitive time frames or final outcomes regarding reversal of the coverage-limiting policies, as the process is dictated by the third-party insurance providers. For a discussion of these risks, please see the “Risk Factors” section of this Annual Report.

Payment amounts are established by government and private payer programs and are subject to fluctuations, which could impact physician practice behavior. Third-party payers are increasingly challenging the prices charged for a wide range of medical products and services, including those in spine and IONM where we participate.

In international markets, reimbursement and healthcare payment systems vary significantly by country and many countries have instituted price ceilings on specific product lines. There can be no assurance that our products will be accepted by third-party payers, that reimbursement will be available, and/or that the third-party payers’ reimbursement policies (if available) will not adversely affect our ability to sell our products profitably.

In the U.S., as a result of healthcare reform, third-party payers are increasingly required to demonstrate they can improve quality and reduce costs; we accordingly see an increase in pre-approval/prior authorizations and non-coverage policies citing higher levels of evidence required for medical therapies and technologies. In addition, insured individuals are facing increased premiums and higher out–of-pocket costs for medical coverage, which can lead a patient to delay medical treatment. An increasing number of insured individuals receive their medical care through managed care programs, which monitor and often require pre-approval of the services that a member will receive. The percentage of individuals covered by managed care programs is expected to grow in the U.S. over the next decade.

Overall escalating costs of medical products and services has led to, and is expected to continue to lead to, increased pressures on the healthcare industry to reduce the costs of products and services. There can be no assurance that third-party reimbursement and coverage will be available or adequate, or that future legislation, regulation, or reimbursement policies of third-party payers will not adversely affect the demand for our products and services or our ability to sell these products and services on a profitable basis. The unavailability or inadequacy of third-party payer coverage or reimbursement could have a material adverse effect on our business, operating results and financial condition. For a discussion of these risks, please see the “Risk Factors” section of this Annual Report.

**Human Capital Resources**

***Workforce Composition***

As of December 31, 2022, we had approximately 3,000 employees worldwide. Approximately 2,500 employees were located within the U.S. and 500 employees were located outside of the U.S., primarily throughout Europe and Asia. None of our employees are represented by a labor union. Employees of our wholly-owned subsidiary, NuVasive Netherlands B.V., based in the Netherlands, are covered by a Works Council. In addition to our employees, we partner with independent sales representatives and independent distributors who sell our products in the U.S. and internationally.

In the U.S., our sales force consists of directly employed sales representatives and independent sales representatives who are responsible for particular geographic regions of the country. Outside of the U.S., our sales force consists of directly employed sales representatives, independent sales representatives and independent territory-based distributors. We operate in a highly competitive industry and it is essential that we attract and retain qualified personnel through competitive compensation and benefits and a rewarding work environment in order to achieve our strategic business objectives. In particular, competition for sales talent in the spine industry is significant. Our sales force provides a delivery and consultative service to our surgeon and hospital customers, and our sales representatives often develop long-lasting relationships with the customers they serve. Accordingly, recruiting sales representatives with appropriate expertise, retaining our talent, and incentivizing our sales force is important to our success. We also believe we attract and retain sales talent based on the breadth of our spine product and service offerings, our enabling technologies, our commitment to investing in research and development and our new product innovation pipeline, as well our world-class surgeon training and education program, all of which we believe makes NuVasive a destination of choice for top sales talent.

***Compensation and Benefits***

We offer competitive benefit packages, supporting our employees as they help to transform spine surgery. This includes encouraging a culture of health by providing wellness programs to best serve our employees and their family members. Our comprehensive benefits package may include competitive pay, annual incentive awards and bonus opportunities, healthcare and retirement benefits, an Employee Stock Purchase Plan, paid time off and sick leave, flexible work arrangements and a wellness program.

***Talent Development***

We believe that success comes from investing in our people and ensuring our work force is aligned with our cultural mindset—*The Cheetah Way*. The Cheetah Way is the foundation of our culture that aligns our beliefs, actions, and how we work to fulfill our commitments. The Cheetah Way is how we deliver on our vision to change a patient's life every minute. To achieve this goal, we devote time and resources to ensure that throughout our organization, employees are familiar with our business, industry and product offerings. Training is offered to new employees which teaches the anatomy and pathologies of the spine and our surgical procedures, and our sales representatives receive additional comprehensive training on our various product offerings. In addition, a key driver of our future growth is our ability to develop leaders. Employees are encouraged to partner with their manager to create individual plans to guide their development path and to incorporate training offerings and resources to support their growth and drive their continued success. Additionally, we regularly conduct talent reviews and succession planning to identify and develop our current and future leaders. We are committed to identifying and developing talent to help those employees accelerate their growth and achieve their career goals.

***Employee Engagement and Communication***

Our success depends on our employees understanding our vision as well as our strategic goals. This is accomplished through a number of channels, including a global intranet and sales enablement platform, regional and functional meetings, and quarterly updates in global Town Halls with leadership on our progress.

We value open and direct communication with our employees about their experiences. We use a variety of channels to obtain employee feedback, including employee surveys, open forums with leadership, and employee resource groups. Our annual employee engagement survey provides us with actionable data for the overall company and each department and also provides managers with upward feedback on how they are progressing against expectations. Each year, the input received through these mechanisms is used to help evolve our working environment and strengthen our culture.

***Diversity and Inclusion***

We recognize the value associated with fostering a work environment that is culturally diverse and inclusive and believe that diverse teams stimulate innovation, enhance our understanding of the needs of our customers, and ultimately deliver better results for our stakeholders. As of December 31, 2022, approximately 59% of our total employees were male and approximately 41% were female, and women comprised approximately 33% of our roles at the manager level and above. In addition, as of December 31, 2022, our Board of Directors consisted of nine members, three of whom identified as female and one who identified as having a racial and ethnic background other than white. Our goal is to cultivate a respectful and professional environment where all voices are heard and valued, which is reflected in one of our competencies - leveraging differences. We have dedicated personnel focused on our diversity and inclusion vision and have established a framework for employee resource groups, which aim to highlight the value of diversity, inclusion and engagement, while providing professional development opportunities for employees of all genders, ethnicities and minority groups, backgrounds, experience levels, and locations. As we seek to create a more diverse and inclusive workforce, we have begun to monitor voluntarily disclosed diversity data to review hiring, promotion and attrition overall at the company and at the department level. We also review performance data and promotion and compensation information to ensure fair and objective decision-making. We believe that building diverse teams and leveraging broad perspectives will empower our employees and strengthen our ability to meet the needs of our customers, patients, and communities we serve.

***Community***

Our employees and sales representatives have a long history of providing support and care to our communities, donating time, resources and funds to local causes. Since 2009, we have leveraged our expertise in spine care to give back to local and global communities through the NuVasive Spine Foundation, or NSF, a 501(c)(3) nonprofit organization. NSF supports life-changing spine surgery for individuals around the world with limited access to high quality medical treatment by working with surgeons to advance the quality of spine care in disadvantaged communities. In addition, through our grants program, we support medical research and education, charitable and philanthropic endeavors. We believe in giving back, and we also believe it is important to operate our company in a socially responsible manner.

***Health, Safety, and Wellness***

We are committed to the protection of our employees, customers, communities and the environment. Our operations require the use of hazardous materials that subject us to various federal, state, and local environmental and safety laws and regulations. Our key areas of focus include corporate compliance with responsible hazardous waste management, recycling, emergency preparedness, as well as various initiatives to improve our health and safety programs with the goal of reducing and ultimately eliminating serious injuries. Our Environmental, Health & Safety personnel develop global safety practices and procedures, train employees, host annual safety campaigns, and monitor compliance with safety procedures. We have also taken additional measures in response to the COVID-19 pandemic, including remote work arrangements for employees who are able to do so and implementing safety protocols and guidelines as recommended or required by federal, state, local and foreign governments.

We also provide well-being programs that support our employees and their families. For example, we offer an employee assistance program (EAP) to support emotional well-being and a wellness technology platform to help employees stay healthy and productive through virtual fitness classes and recognition awards to promote an active lifestyle.

***Human Capital Governance***

Our Board of Directors receives regular updates on topics related to talent development, retention and recruiting initiatives, our diversity and inclusion program, succession planning, employee engagement and the results from our annual employee survey. Management also works closely with the Compensation Committee to establish goals and objectives and metrics in connection with the design and funding of the annual bonus opportunity for our employees. Additionally, the Nominating, Corporate Governance and Compliance Committee and the Audit Committee share oversight responsibilities related to the Company's Code of Conduct which establishes policies pertaining to, among other things, employee conduct in the workplace, workplace safety, confidentiality, conflicts of interest, accuracy of books, records and financial statements, securities trading, anti-corruption, competition laws, interactions with health care professionals and political and charitable activities.

Additional details regarding employee engagement, talent development, diversity and inclusion, community outreach, employee health and safety and sustainability governance can be found in our Environmental, Social, and Governance (ESG) Report. Although not incorporated by reference into this Annual Report, the ESG Report can be accessed on our website at www.nuvasive.com, by clicking the "About" link and then "Corporate social responsibility."

**Corporate Information**

Our business was incorporated in Delaware in July 1997. Our primary corporate offices are located in Broomfield, Colorado and San Diego, California, with our principal executive offices located at 12101 Airport Way, Broomfield, Colorado 80021. Our telephone number is (800) 455-1476. Our website is located at www.nuvasive.com. The contents of our website and the information we post through social media are not a part of, and are not incorporated by reference into, this Annual Report on Form 10-K or any other report or document we file with the Securities and Exchange Commission, or the Commission, and any references to our website and social media sites are intended to be inactive textual references only.

We file our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to those reports, electronically with the Commission. We make these reports available free of charge on our website under the investor relations page as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Commission. All such reports were made available in this fashion during 2022.

The public can also obtain any documents that we file with the Commission at http://www.sec.gov.

This report may refer to brand names, trademarks, service marks or trade names of other companies and organizations, and these brand names, trademarks, service marks and trade names are the property of their respective holders.

**Item 1A.** ***Risk Factors***

*An investment in our common stock involves a high degree of risk. Risk factors that could cause actual results to differ from our expectations and that could negatively impact our financial condition and results of operations are summarized and set forth in detail below and elsewhere in this report. If any of these risks actually occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. Under these circumstances, the trading price of our common stock could decline, and you may lose all or part of your investment. Further, additional risks not currently known to us or that we currently believe are immaterial also may impair our business, operations, liquidity and stock price materially and adversely. You should consider carefully the risks and uncertainties summarized and set forth in detail below and elsewhere in this report before you decide to invest in our common stock.*

**Summary of Risk Factors**

We are providing the following summary of the risk factors contained in this Annual Report on Form 10-K to enhance the readability and accessibility of our risk factor disclosures. This summary does not address all of the risks that we face. We encourage you to carefully review the full risk factors contained in this Annual Report on Form 10-K in their entirety for additional information regarding the material factors that make an investment in our securities speculative or risky. The primary categories by which we classify risks include those related to: (i) our proposed Combination with Globus Medical, (ii) our business and industry, (iii) our commercial operations and plans for future growth, (iv) litigation and intellectual property, (v) regulatory and compliance, (vi) our financial results and financing needs, and (vi) the securities markets and ownership of our common stock. Set forth below within each of these categories is a summary of the principal factors that make an investment in our common stock speculative or risky.

***Risks Related to our Proposed Combination with Globus Medical***

- The consummation of the Combination is contingent upon the satisfaction of a number of conditions, including the approval by both parties' stockholders and the expiration or termination of the waiting period under the HSR Act, that may be outside of our or Globus Medical’s control and that we and Globus Medical may be unable to satisfy or obtain, or which may delay the consummation of the Combination or result in the imposition of conditions that could reduce the anticipated benefits from the Combination or cause the parties to abandon the Combination.
- Uncertainty about the Combination may adversely affect relationships with our customers, sales representatives, suppliers, partners, consultants, and employees, whether or not the Combination is completed.
- Restrictions under the Merger Agreement may adversely affect our business and operations.
- If the Combination is consummated, the combined company may not perform as we or the market expects and we may fail to realize the anticipated benefits of the Combination, which could have an adverse effect on the price of Globus Medical’s Class A common stock that our current stockholders will receive as merger consideration in the Combination.

- The Merger Agreement contains provisions that could discourage or deter a potential competing acquirer from making a favorable alternative transaction proposal and, in specified circumstances, could require us to pay substantial termination fees to Globus Medical.
- Litigation may arise in connection with the Combination, which could be costly, prevent consummation of the Combination, divert management's attention and otherwise materially harm our business.
- Approximately 74% of the outstanding voting power of Globus Medical common stock is currently held by David Paul, the Executive Chairman of Globus Medical, and certain of his affiliates, and following consummation of the Combination, Mr. Paul and his affiliates are expected to hold approximately 65% of the outstanding voting power of the combined company.

***Risks Related to Our Business and Industry***

- Global macroeconomic conditions, including inflation, supply chain disruptions, and fluctuations in foreign currency exchange rates, could continue to adversely affect our operations and profitability.
- We are subject to risks associated with public health threats, including the COVID-19 pandemic, which has had, and may continue to have, a material adverse effect on our business.
- To be commercially successful, we must effectively demonstrate to surgeons and hospitals the value proposition of our products and procedural solutions compared to those of our competitors.
- We operate in a highly competitive market segment that is subject to rapid change, and if we are unable to compete successfully, our sales and operating results may suffer.
- Third-party reimbursement policies and practices, including non-coverage decisions, can negatively impact our ability to sell our products and services.
- Pricing pressure from our competitors, hospital customers and insurance providers can negatively impact our ability to sell our products and services.
- Quality or safety issues affecting our products could harm our reputation, result in liability and adversely impact our business.
- Our IONM business exposes us to risks inherent with the sale of services.

***Risks Related to our Commercial Operations and Plans for Future Growth***

- If we are unable to maintain and expand our network of direct and independent sales representatives and third-party distributors, we may not be able to generate anticipated sales.
- We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.
- Our reliance on a limited number of suppliers, manufacturers and vendors could limit our ability to meet demand for our products in a timely manner or within our budget.
- Manufacturing risks may adversely affect our ability to manufacture products and could reduce our gross margins and negatively affect our operating results.
- The loss of key employees, or our inability to recruit, hire and retain skilled and experienced personnel, could negatively impact our ability to effectively manage and expand our business.
- Cybersecurity risks and the failure to maintain the confidentiality, integrity, and availability of our computer hardware, software, and Internet applications and related tools and functions could result in harm to our business and/or subject us to costs, fines or lawsuits.

***Risks Related to Litigation and Intellectual Property***

- Defending against litigation or other proceedings or third-party claims of intellectual property infringement could require us to spend significant time and money, and if we are unsuccessful, we may be obligated to pay damages and halt sales of our products.
- We are currently, and may in the future be, subject to claims and lawsuits that could cause us to incur significant legal expenses and result in harm to our business.
- Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain.

- If we are unable to protect the confidentiality of our trade secrets, our business and competitive position could be harmed.
- Third parties may assert ownership or commercial rights to inventions we develop.
- If personal injury lawsuits are brought against us, our business may be harmed, and we may be required to pay damages that exceed our insurance coverage.

***Risks Related to Regulatory and Compliance***

- We are subject to rigorous FDA and other governmental regulations regarding the development, manufacture, and sale of our products and we may incur significant expenses to comply with these regulations and develop products that satisfy these regulations.
- Failure or alleged failure to comply with FDA and other governmental regulations can result in investigations and other regulatory proceedings, which are expensive and could divert management attention.
- We are subject to federal, state and foreign fraud and abuse laws and health information privacy and security laws, which, if violated, could subject us to substantial penalties.
- We may fail to obtain or maintain foreign regulatory approvals to market our products in other countries.
- If we fail to obtain, or experience significant delays in obtaining, FDA clearances or approvals for our future products or product enhancements, our ability to commercially distribute and market our products could suffer.
- The misuse or off-label use of our products may harm our reputation in the marketplace, result in injuries that lead to product liability suits or result in costly investigations, fines or sanctions by regulatory bodies if we are deemed to have engaged in the promotion of these uses, any of which could be costly to our business.
- If we or our suppliers fail to comply with the FDA's quality system regulations, ISO or other applicable regulations and standards, the manufacture and processing of our products could be delayed or interrupted and we may be subject to an enforcement action by the FDA or other government agencies.
- Our relationships with physicians could be subject to additional scrutiny from regulatory enforcement authorities and could subject us to possible administrative, civil or criminal sanctions.

***Risks Related to Our Financial Results and Need for Financing***

- We may be unable to grow our net sales or earnings as anticipated, which may have a material adverse effect on our future operating results.
- We have a significant amount of outstanding indebtedness, and our financial condition and results of operations could be adversely affected if we do not effectively manage our liabilities.
- We may need additional financing in the future to meet our capital needs or to make opportunistic acquisitions and such financing may not be available on favorable terms, if at all, and may be dilutive to existing stockholders.

***Risks Related to the Securities Markets and Ownership of Our Common Stock***

- We expect that the price of our common stock will fluctuate substantially, potentially adversely affecting the ability of investors to sell their shares.
- Anti-takeover provisions in our organizational documents and Delaware law may discourage or prevent a change of control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.
- We do not intend to pay cash dividends.

## Risk Factors

### Risks Related to Our Proposed Combination with Globus Medical

***The consummation of the Combination is contingent upon the satisfaction of a number of conditions that may be outside of our or Globus Medical's control and that we and Globus Medical may be unable to satisfy or obtain, or which may delay the consummation of the Combination or result in the imposition of conditions that could reduce the anticipated benefits from the Combination or cause the parties to abandon the Combination.***

Consummation of the Combination is contingent upon the satisfaction of a number of conditions, some of which are beyond our and Globus Medical's control, including, among others:

- the adoption of the Merger Agreement by our stockholders;
- the approval by Globus Medical's stockholders (which include the Executive Chairman of Globus Medical, who together with certain of his affiliates control approximately 74% of the outstanding voting power of Globus Medical's outstanding common stock) of the issuance of shares of Globus Medical Class A Common Stock in connection with the Combination, referred to as the Issuance;
- the absence of any law or order prohibiting consummation of the Merger;
- Globus Medical's registration statement on Form S-4 with respect to the Globus Medical Class A common stock to be issued in connection with the Merger having been declared effective by the Commission; and
- the expiration or termination of the applicable waiting period under the HSR Act;

Each party's obligation to complete the Combination is also subject to certain additional conditions, including:

- subject to certain exceptions, the accuracy of the representations and warranties of the other party;
- performance in all material respects by the other party of its obligations under the Merger Agreement; and
- the absence of a material adverse effect on the other party since February 8, 2023.

These conditions to the closing of the Combination may not be fulfilled in a timely manner or at all, and, accordingly, the Combination may not be completed. In addition, each of Globus Medical and NuVasive may terminate the Merger Agreement under certain specified circumstances, including but not limited to, if (1) the Merger is not completed by October 8, 2023, subject to two additional two-month extensions by us or Globus Medical in certain circumstances in the event that the expiration or termination of the applicable waiting period under the HSR Act, has not been obtained or a legal restraint under anti-trust law is in effect, or (2) the required approval of Globus Medical's or our stockholders is not obtained. In addition, Globus Medical may terminate the Merger Agreement if our Board of Directors changes its recommendation to our stockholders to vote in favor of the adoption of the Merger Agreement, and we may terminate the Merger Agreement if Globus Medical's stockholders fail to approve the Issuance. If the Merger Agreement is terminated, either party may be required to pay the other party a termination fee of up to $120 million under certain circumstances.

As a condition to granting the required clearance under the HSR Act, the Federal Trade Commission may impose limitations or costs, require divestitures or place restrictions on the conduct of the combined company after the closing of the Combination. Such conditions or changes and the process of obtaining the required clearance under the HSR Act could, among other things, have the effect of delaying completion of the Combination or of imposing additional costs or limitations on the combined company following the Combination, any of which may have an adverse effect on the combined company following the Combination.

We and Globus Medical may also be subject to lawsuits challenging the Combination, and adverse rulings in these lawsuits may delay or prevent the Combination from being completed or require us or Globus Medical to incur significant costs to defend or settle these lawsuits. Any delay in completing the Combination could cause us not to realize, or to be delayed in realizing, some or all of the benefits that we expect to achieve if the Combination is successfully completed within its expected time frame.

***Failure to realize the anticipated benefits of the Combination, delay in realizing those benefits, or significant challenges in integrating with Globus Medical.***

We and Globus Medical have operated and, until the completion of the Combination, will continue to operate, independently. The success of the Combination, including anticipated benefits and cost savings, will depend, in part, on our and Globus Medical's ability to successfully integrate our respective operations in a manner that results in various benefits and that does not materially disrupt existing business and strategic relationships or result in decreased net sales due to loss of sales representatives or customers. The process of integrating operations could result in a loss of key personnel or cause an interruption of, or loss of momentum in, the activities of one or more of the combined company's businesses. Inconsistencies in standards, controls, procedures and policies could adversely affect the combined company. The diversion of management's attention and any delays or difficulties encountered in connection with the Combination and the integration of our and Globus Medical's operations could have an adverse effect on the business, financial condition, operating results and prospects of the combined company. If we experience difficulties in the integration process, including those listed above, we may not fully realize the anticipated benefits of the Combination in a timely manner or at all.

***Uncertainty about the Combination may adversely affect relationships with our customers, sales representatives, suppliers, partners, consultants, and employees, whether or not the Combination is completed.***

In response to the announcement of the Combination, our existing or prospective customers, sales representatives, suppliers, partners, consultants, and employees may:

- delay, defer, or cease entering into a business relationship with us or the combined company;
- terminate their relationships with us or the combined company;
- delay or defer other decisions concerning us or the combined company; or
- seek to change the terms on which they do business with us or the combined company.
- Any such delays or changes to terms could materially harm our business or, if the Combination is completed, the business of the combined company.

Losses of customers, sales representatives, suppliers, consultants and employees or other important strategic relationships could have a material adverse effect on our business, financial condition and results of operations. Such adverse effects could also be exacerbated by a delay in the completion of the Combination for any reason, including delays associated with obtaining the requisite regulatory approval under the HSR Act or the approvals of our stockholders and/or Globus Medical's stockholders.

***As a result of the Combination, our current and prospective employees could experience uncertainty about their future with us or the combined company. As a result, key employees may depart because of issues relating to such uncertainty or a desire not to remain with Globus Medical following the completion of the Combination.***

As a result of the Combination, our current and prospective employees could experience uncertainty about their future with us or the combined company, or decide that they do not want to continue their employment with the combined company. As a result, key employees may depart because of issues relating to such uncertainty or a desire not to remain with Globus Medical following the completion of the Combination. Losses of officers, key employees or other employees could materially harm our business, results of operations, and financial condition. Such adverse effects could also be exacerbated by a delay in the completion of the Combination for any reason, including delays associated with obtaining requisite regulatory approvals or the approvals of our stockholders. We may also experience challenges in hiring new employees during the pendency of the Combination, or if the Merger Agreement is terminated, which could harm our ability to grow our business, execute on our business plans or enhance our operations. If the Combination is consummated, the combined company may be less attractive to current and prospective employees, which could harm the business and prospects of the combined company.

***Restrictions under the Merger Agreement may adversely affect our business and operations.***

Under the terms of the Merger Agreement, we are subject to certain restrictions on the conduct of our business prior to completing the Combination which may adversely affect our ability to execute certain of our business strategies, including, but not limited to, making material acquisitions, disposing of material assets, making capital expenditures in excess of specified amounts, issuing additional capital stock or other equity securities, or incurring additional indebtedness (subject to certain exceptions). These limitations may have adverse effects on our existing or planned relationships with our existing or prospective customers, sales representatives, suppliers, consultants and employees, which could adversely affect our business and operations prior to the completion of the Combination.

***If the Combination is consummated, the combined company may not perform as we or the market expects or may fail to realize the anticipated benefits of the Combination, which could have an adverse effect on the price of Globus Medical's Class A common stock that our current stockholders will own following the completion of the Combination.***

If the Combination is consummated, the combined company may not perform as we or the market expects, and we may fail to realize the anticipated benefits of the Combination. Risks associated with the combined company following the Combination include:

- integrating two businesses is a difficult, expensive, and time-consuming process, and the failure to integrate successfully the businesses of our company and Globus Medical would adversely affect Globus Medical's future results following completion of the Combination;
- it is possible that key employees might decide not to remain with the combined company after the Combination is completed, and the loss of key personnel could materially harm the combined company's results of operation, financial condition, and growth prospects;
- the success of the combined company will also depend upon relationships with sales representatives and customers of our company and Globus Medical, which relationships may be affected by the preferences of these parties or public perception about the Combination and the combined company. Any adverse changes in these relationships could adversely affect the combined company's business, financial condition and results of operations;
- the stock price of Globus Medical's Class A common stock after the Combination may be affected by factors different from those currently affecting our common stock; and
- if the Federal Trade Commission imposes requirements, limitations, costs, divestitures, or restrictions on the consummation of the proposed Combination, the combined company's ability to realize the anticipated benefits of the Combination may be impaired.

If any of these events were to occur, the value of the Globus Medical Common Stock received by our stockholders in the Combination could decline.

***Because the consideration to be received by our stockholders in connection with the Combination will include a fixed number of shares of common stock of Globus Medical, and the market price of such shares has fluctuated and will continue to fluctuate, our stockholders cannot be sure of the value of the consideration they will receive in the Combination.***

Under the Merger Agreement, at the effective time of the Combination, each share of our common stock issued and outstanding will be cancelled and converted into the right to receive 0.75 fully paid and non-assessable shares of Globus Medical Class A common stock. The market value of the consideration our stockholders will receive in the Combination will therefore fluctuate with the market price of Globus Medical's common stock. The implied value of the merger consideration to our stockholders has fluctuated since the date of the announcement of the Combination and will continue to fluctuate until the date the Combination is completed, which could occur a considerable amount of time after the date hereof. Globus Medical's share price changes may result from a variety of factors, including, among others, general market and economic conditions, changes in Globus Medical's and our respective businesses, operations and prospects, risks inherent in the respective businesses, changes in market assessments of the likelihood that the Combination will be completed and/or the value that may be generated by the Combination, and changes with respect to expectations regarding the timing of the Combination and regulatory considerations. Many of these factors are beyond both our and Globus Medical's control.

***The Merger Agreement contains provisions that could discourage or deter a potential competing acquirer from making a favorable alternative transaction proposal and, in specified circumstances, could require us to pay substantial termination fees to Globus Medical.***

Under the Merger Agreement we are subject to "no-shop" restrictions and are not permitted to, subject to certain exceptions set forth in the Merger Agreement, (i) solicit or knowingly encourage inquiries or proposals relating to alternative acquisition transactions or (ii) engage in discussions or negotiations regarding, or provide any non-public information to third parties in connection with, alternative acquisition proposals. Further, our Board of Directors is required to recommend that our stockholders vote in favor of the transaction, subject to exceptions for superior proposals and other situations where failure to effect a recommendation change would be inconsistent with the Board of Directors' fiduciary duties. If we terminate the Merger Agreement, we may be required to pay a termination fee of up to $120 million to Globus Medical. Such provisions of the Merger Agreement could discourage or deter a third party that may be willing to pay more than Globus Medical for our outstanding common stock from considering or proposing such an acquisition of our company. In addition, if we or Globus terminates the Merger Agreement because our stockholders fail to adopt the Merger Agreement, we will be required to pay Globus a termination payment of $60 million.

***Litigation may arise in connection with the Combination, which could be costly, prevent consummation of the Combination, divert management's attention and otherwise materially harm our business.***

Regardless of the outcome of any future litigation related to the Combination, such litigation may be time-consuming and expensive and may distract our management from running the day-to-day operations of our business. The litigation costs and diversion of management's attention and resources to address the claims and counterclaims in any litigation related to the Combination may materially adversely affect our business, results of operations, prospects, and financial condition. If the Combination is not consummated for any reason, litigation could be filed in connection with the failure to consummate the Combination. Any litigation related to the Combination may result in negative publicity or an unfavorable impression of us, which could adversely affect the price of our common stock, impair our ability to recruit or retain employees, damage our relationships with our customers, sales representatives, suppliers, consultants, and other business partners or otherwise materially harm our operations and financial performance.

***Approximately 74% of the outstanding voting power of Globus Medical common stock is currently held by David Paul, the Executive Chairman of Globus Medical, and certain of his affiliates, and following consummation of the Combination, Mr. Paul and his affiliates are expected to hold approximately 65% of the outstanding voting power of the combined company.***

Approximately 74% of the outstanding voting power of Globus Medical common stock is currently held by David Paul, the Executive Chairman of Globus Medical, and certain of his affiliates, and following consummation of the Combination, Mr. Paul and his affiliates are expected to hold approximately 65% of the outstanding voting power of the combined company. Because of their significant stock ownership, Mr. Paul and his affiliates will be able to exert substantial control over the combined company and its significant corporate decisions.

The interests of Mr. Paul and his affiliates might not coincide with the interests of the other holders of capital stock of Globus Medical, including our stockholders who receive Globus Medical Class A Common Stock in the Combination. This concentration of ownership may harm the value of the Globus Medical Class A Common Stock our stockholders receive in the Combination by, among other things delaying, deferring or preventing a change in control of Globus Medical, impeding a merger, consolidation, takeover or other business combination involving Globus Medical, or causing Globus Medical to enter into transactions or agreements that are not in the best interests of all stockholders.

Following the Combination, Globus Medical is expected to continue to be a "controlled company". Under the New York Stock Exchange Rules, a "controlled company" may elect not to comply with certain corporate governance requirements, including the requirement that a majority of its directors be independent, as defined in the New York Stock Exchange Rules, and the requirement that its compensation and nominating and corporate governance committees consist entirely of independent directors. Globus Medical relies, and may continue to rely, on the "controlled company" exemption under the New York Stock Exchange Rules. As a result, a majority of the members of its board may not be independent directors and its nominating and corporate governance and compensation committees may not consist entirely of independent directors. Accordingly, while Globus Medical remains a controlled company and during any transition period following a time when it is no longer a controlled company, holders of Globus Medical common stock may not have the same protections afforded to stockholders of companies that are subject to all of the New York Stock Exchange's corporate governance requirements.

**Risks Related to Our Business and Industry**

***Global macroeconomic conditions, including inflation, supply chain disruptions, and fluctuations in foreign currency exchange rates, could continue to adversely affect our operations and profitability.***

The global decline in economic conditions, geopolitical instability, and other macroeconomic factors, including inflation, supply chain disruptions, interest rate and foreign currency rate fluctuations, and volatility in capital markets could continue to negatively impact our business, financial condition, and results of operations. The growth of our business and demand for our products and services are affected by changes in the health of the overall global economy. Deterioration in the global economic environment may cause decreased demand for our products and services which could result in lower procedural volumes, lower prices for our products, reduced reimbursement rates by third-party payers, and slower adoption of new technologies such as Pulse, as well as increase the cost of operating our business. Additionally, hospitals have experienced and continue to experience financial and operational pressures as a result of staffing shortages, the difficult supply chain environment, increased costs of funding sources, and inflation, all of which may impact their profitability and impede their ability to make payments to us for our products and services.

We have also experienced significant challenges in our global supply chain and distribution operations, including material and component shortages for certain product lines, longer shipping and delivery times for raw materials and components, constrained logistics capacity related to the movement of our products, availability of skilled labor and increased costs of raw materials, components, labor, and freight and courier services. While to date, we have largely been able to mitigate the impact associated with these shortages, delays, and inflationary pressures without significant disruption to our business, no assurance can be given that these efforts will continue to be successful. Further, our ability to recover these higher costs through productivity gains or price increases is uncertain, and the failure to offset these additional costs could adversely affect our operating results.

Global economic conditions have also impacted foreign currency exchange rates relative to the U.S. dollar. Although the majority of our net sales and cash generation have been made in the U.S., as our business in markets outside of the U.S. continues to increase, our exposure to foreign currency exchange risk related to our foreign sales and operations will increase. Fluctuations in the rate of exchange between the U.S. dollar and foreign currencies, primarily the Australian dollar, the Brazilian real, the British pound sterling, the Colombian peso, the euro, the Japanese yen, and the Singapore dollar, has had and could continue to have an adverse effect on our financial results, including our net sales, margins, gains and losses, as well as on the values of our assets and liabilities.

***We are subject to risks associated with public health threats, including the COVID-19 pandemic, which has had, and may continue to have, a material adverse effect on our business.***

The nature of our business and our interactions with healthcare systems, surgeons and patients expose us to substantial risks associated with public health threats, including widespread outbreaks of contagious diseases, epidemics, and pandemics such as COVID-19. At the height of the COVID-19 pandemic, governments implemented extraordinary measures to slow the spread of the virus, which included the mandatory closure of businesses, restrictions on travel and gatherings, quarantine and physical distancing requirements, and vaccine mandates. In addition, many government agencies in conjunction with hospitals and healthcare systems deferred, reduced, or suspended elective surgical procedures due to COVID-19. While certain spine surgeries are deemed essential and certain surgeries, like in cases of trauma, cannot be delayed, we saw a significant reduction in procedural volumes at various points in time during 2020, 2021 and 2022 as hospital systems and/or patients deferred spine surgery procedures. Resurgences of COVID-19 or its variants or other public health threats in the future could negatively impact procedural volumes, which could have an adverse effect on our business, results of operations, financial condition and cash flows.

The COVID-19 pandemic and the resulting measures taken to reduce disease transmission have also impacted many aspects of our operations, including our supply chain and distribution systems, the cost and availability of certain components and raw materials due to shortages and resulting cost inflation, increased freight and shipping costs, and employee hiring and retention challenges. If these disruptions continue to persist, it could impair our ability to deliver our products to our customers and distribution partners and otherwise support and fulfill spine surgeries. Further, any such delay or shortage in the supply of components or raw materials may result in our inability to satisfy customer demand for certain products in a timely manner or at all, which could negatively affect future sales and profitability.

Hospital systems have also been significantly impacted by COVID-19 and, among other things, experienced a shortage of healthcare workers resulting in increased labor costs and reduced patient capacity, further impacting the amount of medical procedures that could be performed. Hospitals and other facilities may continue to face significant disruptions in their business and incur financial losses if they are required to decrease or defer elective procedures or increase spending on supplies and infrastructure due to resurgences of COVID-19 and its variants or other public health threats. If the financial condition of hospitals deteriorate it could cause us to experience slower or impaired collections on accounts receivable, reductions in sales of our products and services, and increased price competition all of which could adversely impact our business, results of operations and liquidity.

While many countries have removed or reduced the restrictions initially implemented in response to COVID-19, the pandemic continues to evolve, and its impact on our business will depend on several factors that are highly uncertain and unpredictable, including, the efficacy and adoption of vaccines and treatments, future resurgences of the virus and its variants, the imposition of government lockdowns, quarantine and physical distancing requirements, patient capacity at hospitals and healthcare systems, the duration and severity of healthcare worker shortages, and the willingness and ability of patients to seek care and treatment due to safety concerns or financial hardship.

To the extent the COVID-19 pandemic or another public health threat adversely affects our business and macroeconomic conditions more generally, it may also have the effect of heightening many of the other risks described below.

***To be commercially successful, we must effectively demonstrate to surgeons and hospitals the value proposition of our products and procedural solutions compared to those of our competitors.***

We focus on marketing our products and procedural solutions to surgeons, because of the role that they play in determining the course of patient treatment. However, hospitals are also becoming increasingly involved in the evaluation and acceptance of our products and procedural solutions. Surgeons and hospitals may not widely adopt our products and procedural solutions unless we are able to effectively educate them as to the distinctive characteristics, perceived benefits, safety and cost-effectiveness of our offerings as compared to those of our competitors. We believe that the most effective way to introduce and build market demand for our products and procedural solutions is by directly training surgeons in their use. If surgeons are not properly trained, they may misuse or ineffectively use our products and procedural solutions. This may also result in unsatisfactory patient outcomes, patient injury, negative publicity or lawsuits against us, any of which could have a significant adverse effect on our business, financial condition and results of operations.

Surgeons and hospitals may be hesitant to use and accept our products and procedural solutions for the following reasons, among others:

- lack of experience with less-invasive surgical products and procedures;
- lack or perceived lack of evidence supporting additional patient benefits;
- perceived liability risks generally associated with the use of new products and procedures;
- existing relationships with competitors;
- limited or lack of availability of coverage and reimbursement within healthcare payment systems;
- higher pricing associated with new products and procedures;
- increased competition in procedural offerings;
- lack or perceived lack of differentiation among procedures;
- costs associated with the purchase of new products and equipment; and
- the time commitment that may be required for training.

If we are not able to effectively demonstrate to surgeons and hospitals the value proposition of our products and procedural solutions, or if surgeons and hospitals adopt competing products, our sales could significantly decrease or fail to increase, which could adversely impact our profitability and cash flow. In addition, we believe recommendations and support of our offerings by influential surgeons and other key opinion leaders are essential for market acceptance and adoption. If we are not successful in obtaining such support, surgeons may not use our products and procedural solutions, and we may not achieve expected sales or profitability.

***Our future success depends on developing innovative solutions and our ability to timely acquire, develop and introduce new products or product enhancements that will be accepted by the market.***

An important part of our business strategy is to stay ahead of our competitors by developing and commercializing innovative surgical solutions to fulfill unmet clinical needs while improving clinical, financial, and operational outcomes. As such, our success will depend in part on our ability to acquire, develop and introduce new products and enhancements to our existing products to keep pace with changes in technology and market demand, as well as physician, hospital and healthcare provider practices. The success of any new product offering or enhancement to an existing product will depend on numerous factors, including our ability to:

- properly identify and anticipate surgeon and patient needs;
- develop and introduce new products or product enhancements in a timely and cost-effective manner;
- adequately protect our intellectual property and avoid infringing upon the intellectual property rights of third parties;
- demonstrate the safety and efficacy of new products through clinical investigations or the collection of existing relevant clinical data;
- qualify for adequate reimbursement from third-party payers; and
- obtain the necessary regulatory clearances or approvals for new products or product enhancements.

In addition, our research and development efforts may require a substantial investment of time and resources before we are adequately able to determine the commercial or technical viability of a new product, technology, or other innovation. Even if we are able to develop enhancements or new generation products successfully, these enhancements or new generation products may not generate sufficient demand or produce sales in excess of the costs of development, which would cause our results of operations to suffer. It is also important that we carefully manage our introduction of new and enhanced products. If potential customers delay purchases until new or enhanced products are available, it could negatively impact our sales. Additionally, we may evaluate our existing product portfolio from time to time to optimize our inventory and accompanying surgical instrumentation, allowing us to reinvest and focus on products with higher margin profiles. To the extent we have excess or obsolete inventory or surgical instrumentation as we transition to new products or we take steps to rationalize our existing product portfolio, it would result in write-offs and charges and our results of operations may suffer.

Furthermore, our product development strategy is based on certain assumptions, including assumptions about various demographic trends and trends in the treatment of spine disorders, which could affect the demand for our products and procedural solutions. However, these trends are uncertain and actual demand for our products and procedural solutions could differ materially from projected demand if our assumptions regarding these trends prove to be incorrect or do not materialize, or if alternative treatments to those offered by our products gain widespread acceptance.

***We operate in a highly competitive market segment that is subject to rapid change, and if we are unable to compete successfully, our sales and operating results may suffer.***

The market for our surgical products and procedures is intensely competitive, subject to rapid change and significantly affected by new product introductions and other market activities of industry participants. Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner, receive adequate reimbursement, demonstrate superior outcomes, and are safer and less expensive than those of our competitors. In our core spine business, our significant competitors are Medtronic, DePuy/Synthes, a Johnson & Johnson company, Stryker Spine, Globus Medical, and ZimVie, which together represent a significant portion of the spine market. We also face competition from a significant number of smaller spine companies with more limited product offerings and geographic reach than our larger competitors. These companies, who represent intense competition in specific markets, include Orthofix Medical, Alphatec Holdings, and others. With respect to our IONM and other enabling technologies, we primarily compete with Medtronic and Globus Medical. Our NCS subsidiary competes with Specialty Care, numerous smaller and regional neuromonitoring companies as well as insourced neuromonitoring functions operated by hospitals. Our NSO subsidiary competes with divisions of traditional orthopedics companies, including Stryker Orthopedics and Smith & Nephew, as well as Orthofix Medical and other smaller companies that offer specialized orthopedics solutions. At any time, these companies and other potential market entrants may develop alternative treatments, products or procedures that compete directly or indirectly with our offerings. In addition, they may gain a market advantage by developing and patenting competitive products or processes earlier than we can or by obtaining regulatory clearances or market registrations more rapidly than we can.

***Many of our competitors have greater resources than we have.***

Many of our competitors are large medical device companies that have several competitive advantages over us, including:

- significantly greater name recognition;
- established relationships with a greater number of surgeons, hospitals, other healthcare providers and third-party payers;
- larger and more well-established distribution networks domestically and/or internationally;
- products supported by long-term clinical data;
- greater experience in obtaining and maintaining FDA and other regulatory approvals or clearances for products and product enhancements;
- fully integrated and scaled manufacturing and assembly capabilities;
- greater experience in, and resources for, sourcing, manufacturing, launching, marketing, distributing and selling products, including capital equipment;
- greater ability to cross-sell their products or create bundled offerings to incentivize hospitals and surgeons to use their products;
- more expansive portfolios of intellectual property rights; and
- greater financial assets, cash flow, capital markets access and other resources for product research and development, sales and marketing, and litigation.

If our commercial operations and sales volume continue to grow, our functional support needs will also grow, including in the areas of manufacturing, warehousing and distribution, sales operations and logistics, customer service, billing, and quality, and information technology systems and network infrastructure, among others. If we are unsuccessful in aligning our spending on such support with our anticipated growth, it could negatively impact our business, results of operations, financial condition and cash flows. Because of the significant size of the potential market for spine and other specialized orthopedic products and procedures, we anticipate that our competitors will continue to dedicate substantial resources to developing competing products. If we are unable to compete and scale effectively and sustainably, our sales and operating results may suffer.

***Third-party reimbursement policies and practices, including non-coverage decisions, can negatively impact our ability to sell our products and services.***

Sales of our products and procedural solutions depend on the availability of adequate reimbursement from third-party payers. Future third-party reimbursement for healthcare costs may be subject to changes in policies and practices, such as more restrictive criteria to qualify for surgery coverage or reduction in payment amounts to hospitals and surgeons for approved surgery and IONM services, both in the U.S. and internationally. Further, certain third-party payers have stated non-coverage decisions concerning our technologies and services. These actions could significantly alter our ability to sell our products and procedural solutions. The continuing efforts of governmental authorities, insurance companies, and other payers of healthcare costs to contain or reduce costs could lead to patients being unable to obtain approval for payment from these third-party payers. Changes in legislation, regulation or reimbursement policies of third-party payers may adversely affect the demand for our products and services as healthcare providers generally rely on third-party payers to reimburse all or part of the costs and fees associated with the procedures performed with these devices and services. Likewise, spine surgeons, neurophysiologists and their supervising physicians rely primarily on third-party reimbursement for the surgical or monitoring fees they earn. Spine surgeons are unlikely to use our products and services if they do not receive reimbursement adequate to cover the cost of their involvement in surgical procedures.

Further, as we continue to grow our international business, market acceptance of our products and procedural solutions in a particular international market may also depend, in part, upon the availability of coverage and reimbursement within the applicable healthcare payment system. Reimbursement and healthcare payment systems in international markets vary significantly by country. As in the U.S., we may not be able to obtain coverage and reimbursement approvals in a timely manner, if at all, for our products and procedural solutions in a particular foreign market. In addition, even if we are able to obtain country-specific coverage and reimbursement approvals, the amount of such coverage and reimbursement may not be adequate and we could incur considerable expense in seeking such approvals. Our failure to obtain such coverage and approvals would negatively affect market acceptance of our products and procedural solutions in the international markets in which such failure occurs and the expenses incurred in connection with obtaining such coverage and approvals could outweigh the benefits of obtaining them.

***Pricing pressure from our competitors, hospital customers and insurance providers can negatively impact our ability to sell our products and services.***

The market for spine surgery products is large and has attracted numerous new companies and technologies. As some companies have sought to compete based on price, it has created pricing pressure, which we expect to continue in the future. Consolidation and increased purchasing power of our hospital customers and group purchasing organizations has also created pricing pressure, and we expect, pricing pressure to continue to increase due to consolidation among healthcare providers, trends toward managed and value-based care, the shift toward governments becoming the primary payers of healthcare expenses, and reduction in reimbursement levels. For example, group purchasing organizations have concentrated purchasing decisions for some customers, which may lead to downward pricing pressure for medical device companies, including us. Additionally, pricing for our products may be impacted by changes in the ways healthcare services are delivered, including the transition of some procedures from hospitals to ambulatory surgery centers. As healthcare providers and payers look to reduce costs, including by aggregating purchasing decisions, consolidation, and shifting care to non-acute settings, they are able to demand lower pricing and limit their number of suppliers. If competitive forces drive down the prices we are able to charge for our products, our profit margins will shrink, which will adversely affect our ability to maintain our profitability and to invest in and grow our business.

***Quality or safety issues affecting our products could harm our reputation, result in liability and adversely impact our business.***

In the course of conducting our business, we must adequately address quality and safety issues that may arise with our products, as well as defects in third-party components included in our products. Although we have established internal procedures to minimize risks that may arise from quality and safety issues, we may not be able to eliminate or mitigate occurrences of these issues and associated liabilities. Additionally, as we continue to launch more complex products and technologies, including products based on the MAGEC platform and products like Pulse and other technology in furtherance of our strategy to make spine surgery more intelligent, risks related to quality and safety issues increase compared to our portfolio of spinal implants and fixation products. Manufacturing flaws, component failures, design defects, or inadequate disclosure of product-related information could result in an unsafe condition or the injury or death of a patient. These problems could lead to a recall of, or issuance of a safety alert relating to our products and result in significant costs and negative publicity. An adverse event, safety alert or recall involving one of our products could result in reduced market acceptance and demand for our products, and could harm our reputation and our ability to market our products in the future. In some circumstances, an adverse event, safety alert or recall could require costly design, engineering, and manufacturing changes, and result in the suspension or delay of regulatory reviews of our applications for new product approvals or clearances. Further, if we substitute, replace or exchange products to address an adverse event, safety alert or recall, or take other steps to address the needs or concerns of our customers and patients, it could disrupt our business and have an adverse effect on our results of operations and financial condition. We may also voluntarily undertake a recall of our products, initiate certain field actions, temporarily shut down production lines, or place products on a shipping hold based on internal safety, quality monitoring and testing data. If we take action to reduce a health risk posed by our products, or to remedy a violation of the Federal, Food, Drug and Cosmetic Act or other regulations caused by our products that may present a risk to health, such action may need to be reported to the FDA or equivalent governmental authority. If the FDA or equivalent governmental authority subsequently determines that a report was required for a quality or safety action related to our products that we did not believe required a report, we could be subject to enforcement actions.

While we have a network of quality systems throughout our business lines and facilities, quality and safety issues may occur with respect to any of our products. A quality or safety issue may result in a public warning letter or consent decree from the FDA or an equivalent action by a governmental health authority in an international jurisdiction. In addition, we may be subject to product recalls or seizures, monetary sanctions, lawsuits, injunctions to halt manufacturing and distribution of products, civil or criminal sanctions, refusal of a government to grant clearances or approvals or delays in granting such clearances or approvals, import detentions of products made outside the U.S., restrictions on operations or withdrawal or suspension of existing approvals. Any of the foregoing events could disrupt our business and have an adverse effect on our results of operations and financial condition.

***The safety of many of our products is not yet supported by long-term clinical data and many of our products may therefore prove to be less safe and effective than initially thought.***

As a consequence of our strategy to develop and commercialize new products and product enhancements, many of our products do not have a long history of use. Further, many of our products are subject to the FDA's 510(k) premarket notification clearance process in the U.S. and similar regulatory processes in other countries, which may not require substantial clinical data. Accordingly, many of our products currently lack the breadth of published long-term clinical data supporting their safety and effectiveness. For these reasons, surgeons may be slow to adopt our products, we may not have comparative data that our competitors have or are generating, and we may be subject to greater regulatory and product liability risks. In particular, as we continue to launch more complex products and technologies, including products based on the MAGEC platform and products like Pulse and other technology in furtherance of our strategy to make spine surgery more intelligent, we may have to conduct additional studies and gather additional data to support their safety and effectiveness.

Further, future patient studies or clinical experience may indicate that treatment with our products does not improve patient outcomes. Such results would reduce demand for our products, affect sustainable reimbursement from third-party payers, significantly reduce our ability to achieve expected sales and could prevent us from sustaining or increasing profitability. Moreover, if future results and experience indicate that our products cause unexpected or serious complications or other unforeseen negative effects, we could be subject to significant legal liability and harm to our business reputation. The spine medical device market has been particularly prone to potential product liability claims that are inherent in the testing, manufacture and sale of medical devices and products for spine surgery procedures.

***As we expand our offerings to include capital equipment and invest in related resources and expertise, we are exposed to additional risks.***

As we expand our procedural solutions offerings to include new technologies, including Pulse and other enabling technology in furtherance of our strategy to make spine surgery more intelligent, we expect that the selling and leasing of capital equipment will become a larger portion of our total net sales over time. We do not have a long history of selling, leasing or servicing capital equipment, and we intend to continue to invest in building resources and expertise in this area. We may not generate sufficient sales to offset the expenses associated with this investment. There can be no assurance that our capital equipment strategy will be successful and will not materially adversely affect our financial condition and operating results.

Approval processes of healthcare organizations for the purchase or lease of capital equipment can be lengthy, and such organizations may delay or accelerate system purchases or leases in conjunction with their internal budget timelines. Additionally, the introduction of new products by us or our competitors could adversely impact the sales cycle as healthcare organizations evaluate the benefits and costs of such products. As a result, it is difficult for us to predict the length of capital sales cycles and, therefore, the exact timing of capital sales, which may cause fluctuations in our financial results. Further, demand for capital equipment can be affected by changes in the budgets of healthcare organizations and conflicting spending priorities. Any such decreases in expenditures by these healthcare organizations and decreases in demand for our capital equipment could have an adverse effect on our results of operations and financial condition.

***We may engage in strategic transactions, including acquisitions, investments, joint development agreements or divestitures that may have an adverse effect on our business.***

We may pursue transactions, including acquisitions of complementary businesses, technology licensing arrangements, strategic relationships, and joint development agreements to expand our product offerings and geographic presence as part of our business strategy, which could be material to our financial condition and results of operations. We may also consider divesting non-core product lines or out-licensing our technology. We may not complete transactions in a timely manner, on a cost-effective basis, or at all, and we may not realize the expected benefits of any acquisition, license arrangement, strategic relationship, joint development agreement or divestiture. Other companies may compete with us for these strategic opportunities. We also could experience negative effects on our results of operations and financial condition from charges related to acquisitions and investments, amortization of intangible assets and asset impairment charges, and other issues that could arise in connection with, or as a result of, acquisitions or divestitures, including issues related to internal control over financial reporting, regulatory or compliance issues and potential adverse short-term effects on results of operations through increased costs or otherwise. Acquisitions involve numerous risks, including the following:

- difficulties in finding suitable partners or acquisition candidates;
- difficulties in obtaining financing on favorable terms, if at all;
- difficulties in completing transactions on favorable terms, if at all;

- the possibility that we will pay more than the value we derive from the acquisition, which could result in future non-cash impairment charges and/or a dilution of future earnings per share;
- difficulties in integration of the operations, technologies, personnel, and products of acquired companies, which may require significant attention of our management team that otherwise would be available for the ongoing development of our business;
- the applicability of additional laws, regulations and policies that have particular application to our acquisitions, including those relating to patient privacy, insurance fraud and abuse, false claims, prohibitions against self-referrals, anti-kickbacks, direct billing practices, HIPAA compliance, and prohibitions against the corporate practice of medicine and fee-splitting;
- the assumption of certain known and unknown liabilities of acquired companies;
- the incurrence of debt, contingent liabilities, or future write-offs of intangible assets or goodwill;
- difficulties in retaining key relationships with employees, customers, partners and suppliers of an acquired company; and
- difficulties in operating in different business markets where we may not have historical experience.

Any of these factors could have a negative impact on our business, results of operations or financial position. Further, past and potential acquisitions entail risks, uncertainties and potential disruptions to our business, especially where we have limited experience as a company developing or marketing a particular product or technology. Following any acquisition, we must integrate the new business, which can be expensive, time-consuming and cause disruptions to our existing operations. Failure to timely and successfully integrate acquired businesses may result in non-compliance with regulatory or other requirements and may result in unexpected costs, including as a result of inadequate cost containment and failure to fully realize expected synergies. As a result of any of the foregoing, we may not realize the expected benefit from any acquisition or investment. If we cannot integrate acquired businesses, products or technologies, our business, financial conditions and results of operations could be materially and adversely affected.

In addition, we may face additional risks related to foreign acquisitions and investments. Foreign acquisitions and investments involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks, and the particular economic, political and regulatory risks associated with specific countries.

Any divestitures may result in a dilutive impact to our future earnings, as well as significant write-offs, including those related to goodwill and other intangible assets, which could have a material adverse effect on our results of operations and financial condition. Divestitures could involve additional risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business and the potential loss of key employees. We may not be successful in managing these or any other significant risks that we encounter in divesting a product or technology.

***Healthcare policy changes may have a material adverse effect on us.***

Political, economic and regulatory influences are subjecting the healthcare industry to fundamental changes. For example, as a result of the ACA, the U.S. has implemented value-based payment methodologies and has created alternative payment models such as bundled payments to continue to drive improved value. The ACA also significantly altered Medicare and Medicaid reimbursements for medical services and medical devices. We anticipate that Congress, regulatory agencies and certain state legislatures will continue to review and assess alternative healthcare delivery systems and payment methods with an objective of ultimately reducing healthcare costs and expanding access. We cannot predict with certainty what healthcare initiatives, if any, will be implemented at the state level, or what ultimate effect federal healthcare reform or any future legislation or regulation may have on our customers' purchasing decisions regarding our products and services. However, the implementation of new legislation and regulation may lower reimbursements for our products, reduce medical procedure volumes and adversely affect our business, possibly materially.

***Our IONM business exposes us to risks inherent with the sale of services.***

Our IONM services and support business exposes us to different risks than our other products and technologies. Through our NCS subsidiary, we provide onsite and remote monitoring of the neurological systems of patients undergoing spinal and brain-related surgeries. Our neurophysiologists are present in the operating room during procedures and work with supervising physicians who remotely oversee and interpret neurophysiological data gathered via broadband transmission over the Internet. Providing this service subjects us to malpractice exposure. In addition, given the reliance on technology, any disruption to our IONM equipment or the Internet could harm our service operations and our reputation among our customers. Further, any disruption to our information technology systems could adversely impact the performance of our neurophysiologists and oversight physicians.

In addition, IONM services are directly billed to Medicare and commercial payers, which brings with it additional risks associated with proper billing practice regulations, HIPAA compliance, corporate practice of medicine laws, and collections risk associated with third-party payers. Due to the breadth of many healthcare laws and regulations, our IONM business could also be subject to healthcare fraud regulation and enforcement by both the federal government and the states in which we conduct our business, including under the Anti-Kickback Statute, the federal false claims laws and state law equivalents. Further, in December 2020, in connection with the Consolidated Appropriations Act of 2021, the No Surprises Act was signed into law in the U.S., which introduced national limitations on physician billing for certain services furnished by providers who are not in-network with the patient's self-insured health plan, individual or group health plan. This federal law became effective on January 1, 2022, and several states where we conduct business have also enacted similar laws that would apply to patients having state-regulated insurance. These measures could limit the amount we can charge and recover for the IONM services we furnish where we have not contracted with the patient's insurer, which could negatively impact the profitability of our IONM services business. If our operations are found to be in violation of any of these laws or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results.

***Our increased focus on specialized pediatric conditions exposes us to different risks.***

In furtherance of our growth strategy, we have invested in, and expect to continue to invest in the pediatric spine and orthopedic segments, which exposes us to different risks than our other products and technologies. With the 2016 acquisition of Ellipse Technologies, we began to offer innovative products based on the MAGEC platform, which accelerated our entry into the pediatric spine segment. Our MAGEC growing rods are used to treat early-onset scoliosis and, once surgically implanted in a patient, can be adjusted non-invasively using an external remote controller. We have further added to our pediatric portfolio with the launch of the Reline Small Stature system, designed as a deformity fixation solution for pediatric spine surgery, and products to support the adolescent deformity market. Designing and engineering specialized products for pediatric patients can be challenging, particularly as products need to accommodate growth in pediatric patients. If we are unable to design safe and effective products that meet the needs of pediatric patients, our ability to compete in the pediatric segment will be adversely impacted. Further, patients with early-onset scoliosis often have other risk factors and co-morbidities that can make surgeries more risky, which can lead to surgical and post-operative complications and potentially greater exposure for allegations of product liability.

In addition, if our pediatric products are the subject of safety concerns, whether actual or perceived, it would have an adverse impact on our business and results of operations. For example, we have previously issued field safety notices for certain of our MAGEC systems, and we have imposed voluntary ship holds on these products in the past. Further, for a portion of 2021, the CE mark for these products was suspended. While we have since resumed MAGEC sales in our key markets, for current and future versions of our MAGEC systems, and other systems we may offer in the future, we may need to conduct additional studies, gather additional data, or re-design or re-engineer such products, which could be costly. In certain cases, we may withdraw products from a market or markets or decide not to launch new products, which could have a material adverse effect on our business. Additionally, claims or lawsuits related to MAGEC, whether or not they are successful, could harm our reputation and have a material adverse effect on our business and results of operations.

***Our employees, independent sales representatives, consultants, distributors and other commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.***

We are exposed to the risk that our employees, independent sales representatives, consultants, distributors and other commercial partners may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or other unauthorized activities that violate the regulations of the FDA and non-U.S. regulators, including those laws requiring the reporting of true, complete and accurate information to such regulators, manufacturing standards, healthcare fraud and abuse laws and regulations in the U.S. and abroad or laws that require the true, complete and accurate reporting of financial information or data. In particular, sales, marketing and business arrangements in the healthcare industry, including the sale of medical devices, are subject to extensive laws and regulations intended to prevent fraud, bribery, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. It is not always possible to identify and deter misconduct by our employees or third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment of operations, any of which could adversely affect our ability to operate our business and our results of operations. Whether or not we are successful in defending against such actions or investigations, our reputation could be harmed, we could incur substantial costs, including legal fees, and divert the attention of management in defending ourselves against any of these claims or investigations.

**Risks Related to our Commercial Operations and Plans for Future Growth**

***If we are unable to maintain and expand our network of direct and independent sales representatives and third-party distributors, we may not be able to generate anticipated sales.***

In the U.S., we sell our products through a combination of directly employed and independent sales representatives. Our international sales force is also comprised of directly employed and independent sales representatives, as well as exclusive and non-exclusive independent third-party distributors. If our sales representatives and distributors fail to adequately promote, market and sell our products, or fail to develop strong relationships with customers, our sales could significantly decrease or fail to increase. Further, the termination or transition of a sales representative or distributor could disrupt business and cause us to incur expenses related to such termination or transition, including contract termination fees or expenses associated with claims and lawsuits. Asserting or defending against these types of claims and lawsuits may result in significant legal fees and expenses, and if we are unsuccessful, we could be liable for damages.

We face significant challenges and risks in managing our geographically dispersed distribution network and retaining the individuals and organizations who make up that network. In the past, we have experienced departures of sales representatives and distributors, which have had a negative impact on our results. If sales representatives or distributors were to depart and be retained by one of our competitors, we may be unable to prevent them from helping competitors solicit business from our existing customers, which could further adversely affect our sales. In addition, as we expand into new markets, it may be difficult to find sales representatives and distributors with the appropriate expertise or it may take time for new sales representatives or distributors to reach full operational effectiveness and generate expected sales. Because of the intense competition for their services, we may be unable to recruit or retain sales representatives and distributors to work with us. Failure to hire or retain qualified sales representatives and distributors would prevent us from expanding our business and generating sales.

***We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.***

We intend to grow our business operations and we may experience periods of rapid growth and expansion. This anticipated future growth could create a strain on our organizational, administrative and operational infrastructure, including manufacturing, warehousing and distribution operations, quality control, information technology infrastructure, technical support and customer service, sales force management and general and financial administration. We may not be able to maintain the quality or delivery timelines of our products or satisfy customer demand as it grows. Our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls, as well as our reporting systems and procedures.

If our commercial operations and sales volume grow, we will need to continue to increase our capacity for manufacturing, warehousing and distribution, sales operations and logistics, customer service, billing and general process improvements and expand our internal quality assurance program, among other things. We will also need to purchase additional equipment, some of which can take several months or more to procure, set up and validate, and increase our manufacturing, maintenance, and information technology systems capacity to meet increased demand, and further invest in our inventory. These increases in scale, expansion of personnel, purchases of equipment or process enhancements and investments in inventory can be costly and may not be successfully implemented, any of which could disrupt our business and have an adverse effect on our results of operations and financial condition.

***Our reliance on a limited number of suppliers, manufacturers and vendors could limit our ability to meet demand for our products in a timely manner or within our budget.***

While we manufacture many of our products, we continue to rely on a limited number of third-party suppliers, manufacturers and vendors to supply, manufacture, and process our products, and we may not be able to find replacements or immediately transition to alternative suppliers, manufacturers or vendors. Many of our key products are manufactured at single locations, with limited alternate facilities, and it could take considerable time and resources for us to replace the capacity of such manufacturers in the event of disruptions. In addition, if we are required to change the manufacturer of a critical component of our products, we will be required to verify that the new manufacturer maintains facilities, procedures and operations that comply with our quality and applicable regulatory requirements, which could further impede our ability to manufacture our products in a timely manner.

Further, for reasons of quality assurance or cost effectiveness, we purchase certain components and raw materials from sole suppliers and in certain circumstances engage a limited number of vendors to provide additional services such as sterilization and packaging for our products. To be successful, we rely on our suppliers and vendors to provide us with products, components, and services in compliance with regulatory requirements, in accordance with agreed upon specifications, at acceptable cost and on a timely basis. In the event we experience delays, shortages, or stoppages of supply or services with any supplier or vendor, we would be forced to identify a suitable alternative supplier or vendor which could take significant time and result in significant expense. Many of these suppliers and vendors have been adversely affected by the COVID-19 pandemic, or have otherwise been disrupted by associated prevailing macroeconomic trends. These disruptions have led to product shortages, service interruptions, and an increase in raw material and component pricing. If these suppliers and vendors are unable or unwilling to deliver critical components and services, we may not be able to deliver certain products at reasonable cost, without significant capital expenditures or at all, and our business and results of operations could suffer. In such cases, we may not be able to establish additional or replacement suppliers or vendors in a timely or cost-effective manner that comply with our quality and applicable regulatory requirements, which could further negatively impact our business and results of operations. In addition, our anticipated growth could strain the ability of suppliers to deliver an increasingly large supply of products, materials and components. If we are required to transition to new third-party suppliers for certain components of our products, the use of components or materials furnished by these alternative suppliers could require us to alter our operations. Any such interruption or alteration could harm our reputation, business, financial condition and results of operations. Transitioning to a new supplier could be time-consuming and expensive, may result in interruptions in our operations and product delivery, could affect the performance specifications of our products or could require that we modify the design of those systems.

***Performance issues, service interruptions or price increases by our shipping carriers could adversely affect our business and harm our reputation and ability to provide our products and services on a timely basis.***

Expedited, reliable shipping is essential to our operations. We rely heavily on providers of transport services for reliable and secure point-to-point transport of our products to our customers and for tracking of these shipments. Should a carrier encounter delivery performance issues such as loss, damage or destruction of any products, it could be costly to replace such products in a timely manner and such occurrences may damage our reputation and lead to decreased demand for our products and increased cost and expense to our business. In addition, any significant increase in shipping rates could adversely affect our operating margins and results of operations. Similarly, strikes, severe weather, natural disasters, public health threats, or other service interruptions affecting delivery services we use would adversely affect our ability to process and fulfill orders for our products on a timely basis. Recently, we have experienced increased costs associated with the distribution and shipping of our products. While we have implemented cost containment measures to mitigate these inflationary pressures, we may not be able to completely offset these increases in our operational costs, which may have an adverse effect on our business, financial condition and results of operations.

***Manufacturing risks may adversely affect our ability to manufacture products and could reduce our gross margins and negatively affect our operating results.***

As part of our business strategy, we intend to continue to expand our ability to manufacture our current and new products with exceptional quality and in sufficient quantities to meet demand, while complying with regulatory requirements and managing manufacturing costs. We are subject to numerous risks relating to our manufacturing capabilities, including both those of our own manufacturing facilities and those of our third-party suppliers, such as:

- problems with quality control and assurance, including manufacturing nonconformances and product design defects;
- defective raw materials or defects in product components that we source from third-party suppliers;
- delays in obtaining raw materials or components from third-party suppliers and raw material and component supply shortages;
- failing to predict demand accurately, resulting in a failure to increase production of products to meet demand;
- potential adverse effects on existing business relationships with current third-party suppliers as we expand our in-house manufacturing capabilities;
- maintaining control over manufacturing expenses as production expands, including increasing labor costs and costs of third-party components, commodities and other materials used in our products;
- difficulties associated with compliance with local, state, federal and foreign regulatory requirements;
- shortages of qualified personnel or workforce disruptions;
- the inability to modify production lines to enable the efficient manufacture of new products or to quickly implement changes to current products in response to regulatory requirements;
- disruptions caused by equipment malfunctions, facility closures from public protests or demonstrations, natural disasters such as hurricanes, tornadoes earthquakes or wildfires, and the impact of epidemics or pandemics, such as the COVID-19 pandemic; and
- potential damage to or destruction of our, or our suppliers' manufacturing equipment or manufacturing facilities.

These risks may be exacerbated by our limited experience with self- manufacturing processes and procedures. In addition, as we seek to expand our manufacturing capabilities, we will have to continue to invest additional resources to hire and train personnel and enhance our production processes. If we fail to increase our manufacturing capacity efficiently, our profit margins will shrink, which will negatively affect our operating results.

***The loss of key employees, or our inability to recruit, hire and retain skilled and experienced personnel, could negatively impact our ability to effectively manage and expand our business.***

Our success depends on the skills, experience and performance of the members of our executive management team and other key employees. Their individual and collective efforts will continue to be important as we continue to develop our products and as we expand our commercial activities. The loss or incapacity of existing members of our executive management team could negatively impact our operations, particularly if we experience difficulties in hiring qualified successors. We do not maintain key person life insurance with respect to any of our employees.

Our research and development programs and manufacturing and operations teams depend on our ability to attract and retain qualified managers and highly skilled personnel with technical, manufacturing and distribution experience. The ability to recruit and retain such personnel depends on a number of factors, including compensation and benefits, work location, work environment, and competition for labor. We may not be able to adequately attract or retain qualified managers and highly skilled personnel in the future due to competition from medical device and other businesses, universities, and public and private research institutions. There also may be shortages of skilled labor due to the COVID-19 pandemic, macroeconomic conditions, or other factors that may make it more difficult for us to attract and retain qualified personnel and lead to increased labor costs. All of our U.S. employees are employed on an at-will basis, which means that either we or the employee may terminate his or her employment at any time. The loss of key employees, the failure of any key employees to perform or our inability to attract and retain skilled employees, as needed, or an inability to effectively plan for and implement a succession plan for key employees could harm our business.

***We face risks associated with our international business.***

During the year ended December 31, 2022, $276.1 million, or 23%, of our net sales was attributable to our international customers (excluding Puerto Rico). We expect to continue to invest in international expansion with a focus on European, Asia-Pacific and Latin American markets. Our international business operations are subject to a variety of risks, including:

- difficulties in staffing and managing foreign and geographically dispersed operations;
- having to comply with various U.S. and international laws, including the FCPA and anti-money laundering laws;
- having to comply with U.S. and foreign trade, import and export and customs regulations and laws, including, but not limited to, the Export Administration Regulations and trade sanctions against embargoed countries, which are administered by the Office of Foreign Assets Control within the Department of the Treasury, as well as the laws and regulations administered by the Department of Commerce;
- differing complex regulatory requirements for obtaining clearances or approvals to market our products, including the EU MDR, CE product marking in Europe, and UKCA product marking in the UK, and the PMD Act in Japan;
- changes in, or uncertainties relating to, foreign rules and regulations that may impact our ability to sell our products, perform services or repatriate profits to the U.S.;
- tariffs and trade barriers, export regulations and other regulatory and contractual limitations on our ability to sell our products in certain foreign markets;
- fluctuations in foreign currency exchange rates;
- limitations on or increase of withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- differing multiple payer reimbursement regimes, government payers or patient self-pay systems;
- differing labor laws and standards;
- changes in, or uncertainties relating to foreign laws around value-added taxes or permanent establishment that may impact our international indirect and income tax expense and related compliance costs;
- complex data privacy and protection requirements, including the GDPR;
- environmental laws, including regulations relating to climate change and the emission of greenhouse gases;
- public health emergencies, including the COVID-19 pandemic;
- economic, political or social instability in foreign countries and regions, including as a result of wars and military conflicts;
- an inability, or reduced ability, to protect our intellectual property, including any effect of compulsory licensing imposed by government action;
- potential changes to U.S. trade policy, including new legislation that could restrict international trade, or protectionist or retaliatory measures taken by governments of other countries; and
- availability of government subsidies or other incentives that benefit competitors in their local markets that are not available to us.

The FCPA and similar anti-bribery laws in non-U.S. jurisdictions generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business. The FCPA also imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments. Because of the predominance of government-sponsored healthcare systems around the world, many of our customer relationships outside of the U.S. are with governmental entities and are therefore subject to such anti-bribery laws. Our internal control policies and procedures may not always prevent or protect us from reckless or criminal acts committed by our employees, distributors or agents. In recent years, both the U.S. and foreign government regulators have increased regulation, enforcement, inspections and governmental investigations of the medical device industry, including increased U.S. government oversight and enforcement of the FCPA. Despite implementation of a comprehensive global healthcare compliance program, we may be subject to more regulation, enforcement, inspections and investigations by governmental authorities in the future.

Any failure to comply with applicable legal and regulatory obligations in the U.S. or abroad could adversely affect us in a variety of ways that include, but are not limited to, significant criminal, civil and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments and restrictions on certain business activities, disgorgement and other remedial measures, disruptions of our operations, and significant management distraction. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of our distribution and sales activities. Any reduction in international sales, or our failure to further develop our international markets, could have a material adverse effect on our business, results of operations and financial condition.

Wars and other conflicts may also adversely affect our business, including by limiting our ability to operate in, or export from, certain markets. The adverse effects of emerging, expanding, and new conflicts, such as a possible expansion of the Russian-Ukrainian conflict, may extend beyond the specific markets involved. For example, the U.S. and other countries have imposed export controls on certain products and financial and economic sanctions on certain industry sectors in Russia and additional controls and sanctions could be implemented in the future. We do not currently have business or manufacturing operations in Russia or Ukraine and therefore the conflict has not had a material adverse effect on our business. However, sanctions and other civil, political and economic effects of the Russian-Ukrainian conflict or of conflicts involving other countries, may have adverse impacts globally, including supply chain disruptions, increased costs of components and raw materials, especially titanium and other inputs for our products, manufacturing or shipping delays, increased shipping costs, and volatility or disruptions in the credit and capital markets.

***Our results have been and may continue to be impacted by changes in foreign currency exchange rates.***

As we increasingly compete in markets outside of the U.S., we have been and will continue to be exposed to foreign currency exchange risk related to our foreign operations. A significant portion of our foreign subsidiaries' operating expenses are incurred in foreign currencies. If the U.S. dollar weakens, our consolidated operating expenses would increase. An increase in the value of the U.S. dollar relative to foreign currencies could require us to reduce our selling price or risk making our products less competitive in international markets or our costs could increase. Further, when the U.S. dollar strengthens relative to foreign currencies, it has a negative impact on our reported net sales from our international business. Also, as our international sales continue to increase, we may enter into a greater number of transactions denominated in non-U.S. dollars, which could increase our exposure to foreign currency risks, including changes in currency exchange rates. If we are unable to address these risks and challenges effectively, it could negatively impact our international operations, which may have an adverse effect on our business, financial condition and results of operations.

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

We have invested, and we expect to increase our investment for the foreseeable future, in our international expansion efforts. To execute our anticipated growth in international markets we must:

- manage the complexities associated with a larger, faster growing and more geographically diverse organization;
- expand our clinical development resources to manage and execute increasingly global, larger and more complex clinical trials and studies;
- manage our directly-employed sales personnel as well as independent distributors and sales representatives operating in international markets often pursuant to laws, regulations and customs that may be different than those that are customary for our U.S. operations;

- expand our sales and marketing presence in international markets generally to avoid concentration of sales in a small number of markets that would subject us to the risk of business disruption as a result of economic or political problems in concentrated locations;
- upgrade our internal business processes and capabilities (e.g., information technology platform and systems, product distribution and tracking) to create scalability and properly handle the transaction volumes that our growing geographically diverse organization demands;
- develop and maintain procedures and infrastructure relating to the sterilization and packaging of our products to address the business needs of our international customers and regulatory requirements;
- expend time and resources to receive product approvals and clearances to sell and promote products, including CE product marking in Europe and UKCA product marking in the UK; and
- incur significant costs to comply with new and complex regulatory requirements such as the EU MDR.

We expect that our operating expenses will continue to increase as we continue to expand internationally. International markets may be slower than domestic markets in adopting our products and are expected, in many instances, to yield lower profit margins when compared to our domestic operations. We have only limited experience in expanding into international markets as well as marketing and operating our products and services in such markets.

Additionally, our international endeavors may involve significant risks and uncertainties, including distraction of management from domestic operations, insufficient sales to offset the expenses associated with our international strategy, and issues not discovered in our due diligence of new markets or ventures. Because international expansion is inherently risky, no assurance can be given that such strategies and initiatives will be successful and will not materially adversely affect our financial condition and operating results. Even if our international expansion is successful, our expenses may increase at a greater pace than our net sales and our operating results could be harmed.

Further, our anticipated growth internationally will place additional strain on our suppliers, manufacturers and vendors, resulting in increased need for us to carefully monitor quality assurance. Any failure by us to manage our international growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals.

***Cybersecurity risks and the failure to maintain the confidentiality, integrity, and availability of our computer hardware, software, and Internet applications and related tools and functions could result in harm to our business and/or subject us to costs, fines or lawsuits.***

We rely on sophisticated information technology systems and network infrastructure to operate and manage our business. We also maintain personally identifiable information, or PII, about our employees, and given the nature of our business, we have access to protected health information, or PHI. Additionally, our goal is to use technology and data to make spine surgery more intelligent, and accordingly, we anticipate collecting and analyzing certain health and clinical data to provide surgeons with pre-operative treatment selection and planning capabilities and support post-operative workflow and analytics. The collection, storage, protection, processing and use of this data and information depends on the continuous, effective, reliable, and secure operation of our computer hardware, software, networks, servers, and related infrastructure. To the extent that our hardware or software malfunctions or access to our data by internal personnel, suppliers or customers through the Internet is interrupted or compromised, our business could suffer, and we could face potential legal and financial exposure and liability.

The integrity and protection of our customer, personnel, financial, research and development, and other confidential data is critical to our business, and our customers and employees have a high expectation that we will adequately protect their personal information. The regulatory environment governing information, security and privacy laws is increasingly demanding and continues to evolve and a number of states have adopted laws and regulations that may affect our privacy and data security practices regarding the use, disclosure and protection of PII. For example, California enacted legislation, the California Consumer Privacy Act, that, among other things, creates new individual privacy rights and imposes increased obligations on companies handling PII.

Although our computer and communications hardware is protected through physical and software safeguards, it is still vulnerable to system malfunction, computer viruses, and other cybersecurity threats such as malware, ransomware, and phishing and social engineering attacks. Furthermore, we rely on third-party vendors to supply and/or support certain aspects of our information technology systems and resulting products. Third-party systems and software are also vulnerable to cybersecurity threats and may contain defects in design or manufacture (referred to as "supply-chain attacks") or other problems that could result in system disruption or compromise the information security of our own systems. These events could lead to the unauthorized access of our information technology systems and result in financial loss and the misappropriation or unauthorized disclosure of confidential and proprietary information belonging to us, our employees, partners, customers, or our suppliers. The techniques used by criminal elements to attack computer systems are sophisticated, change frequently and may originate from less regulated and remote areas of the world. As a result, we may not be able to address these techniques proactively or implement adequate preventative measures. If our information technology systems are compromised we could be subject to fines, damages, litigation and enforcement actions, incur financial losses, suffer reputational damage, and lose trade secrets or other confidential information, each of which could significantly harm our business.

***We rely on the performance of our information technology systems, the failure of which could have an adverse effect on our business and performance.***

Our business requires the continued operation of sophisticated information technology systems and network infrastructure. These systems are vulnerable to interruption by fire, floods, earthquakes, power loss, system malfunction, computer viruses, security breaches, cybersecurity threats such as malware, ransomware, phishing and social engineering attacks, and other events, which are beyond our control. Systems interruptions could reduce our ability to manufacture, deliver, and provide service for our products, and could have an adverse effect on our operations and financial performance. The level of protection and disaster-recovery capability varies from site to site, and there can be no guarantee that any such plans, to the extent they are in place, will be completely effective. Further, a large number of our employees work remotely which could expose us to greater risks associated with cybersecurity threats and systems interruptions. Loss of data could interrupt our operations, including our ability to ship products, bill our customers, provide customer support services, conduct research and development activities, process and prepare company financial information, manage various general and administrative aspects of our business and damage our reputation, any of which could adversely affect our business.

***Our operations are vulnerable to interruption or loss due to natural or other disasters, power loss, strikes and other events beyond our control.***

Our primary corporate offices are located in Broomfield, Colorado and San Diego, California, which are both areas that have experienced fires, earthquakes and other natural disasters. In addition, our primary manufacturing facility is located in West Carrollton, Ohio, and our primary distribution and warehouse facility is located in Memphis, Tennessee, areas that have experienced tornados, winter storms and other natural disasters. A major earthquake, fire, tornado or other disaster (such as a major flood, tsunami, storm, drought or terrorist attack) affecting these or other NuVasive facilities, or those of our suppliers or vendors, could significantly disrupt our operations, and delay or prevent product shipment or installation during the time required to repair, rebuild or replace our facilities or those of our suppliers or vendors. Global climate change could also result in certain types of natural disasters occurring more frequently or with more extreme effects. For example, increasing intensity of drought and other climate conditions throughout California and Colorado increase the probability of wildfires in these States. Additionally, if our facilities or any of our customers' facilities are negatively impacted by a disaster, shipments of our products could be delayed or canceled. Even if we are able to quickly respond to a disaster, the ongoing effects of the disaster could create some uncertainty in the operations of our business. In addition, our facilities may be subject to a shortage of available electrical power and other energy supplies. Any shortages may increase our costs for power and energy supplies or could result in blackouts, which could disrupt the operations of our affected facilities and harm our business. Further, concerns about terrorism, the effects of a terrorist attack, political turmoil or an outbreak of a widespread disease or other public health crisis, such as the COVID-19 pandemic, could have a negative effect on our operations, those of our suppliers and customers and the ability to travel, which could harm our business, financial condition and results of operations.

***Our insurance policies are expensive and protect us only from some business risks, which will leave us exposed to significant uninsured liabilities.***

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include general liability, employee benefits liability, property, workers' compensation, products liability, medical professional liability, cyber-security, employment practice liability, and directors' and officers' insurance. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our cash position and results of operations.

***We bear the risk of warranty claims on our products.***

We bear the risk of express and implied warranty claims on products we supply, including equipment and component parts manufactured by third parties. We may not be successful in claiming recovery under any warranty or indemnity provided to us by our suppliers or vendors in the event of a successful warranty claim against us by a customer or that any recovery from such vendor or supplier would be adequate. In addition, warranty claims brought by our customers related to third-party components may arise after our ability to bring corresponding warranty claims against such suppliers expire, which could result in additional costs to us.

As we expand our offerings to include capital equipment, we are exposed to additional risks related to warranties. Sales of our Pulse platform typically include warranty, maintenance and service obligations that begin after the date the equipment is delivered and installed at a customer's facility. Customers may also purchase a supplemental service plan for technical and other services for any required service beyond the initial warranty and service period. If product warranty claims or service and maintenance obligations exceed our expectations and reserves, our business, financial condition and results of operations could be harmed.

**Risks Related to Litigation and Intellectual Property**

***Defending against litigation or other proceedings or third-party claims of intellectual property infringement could require us to spend significant time and money, and if we are unsuccessful, we may be obligated to pay damages and halt sales of our products.***

Significant litigation regarding patent rights occurs in our industry and our commercial success depends in part on not infringing the patents or violating the proprietary rights of others. We have received in the past, and expect to receive in the future, claims from third parties alleging infringement of their intellectual property rights. A patent infringement suit brought against us or any of our strategic partners or licensees may force us or such strategic partners or licensees to stop or delay developing, manufacturing or selling potential products that are claimed to infringe a third-party's intellectual property, unless that party grants us or our strategic partners or licensees rights to use its intellectual property. In such cases, we may be required to obtain licenses to patents or proprietary rights of others in order to continue to commercialize our products. However, we may not be able to obtain any licenses required under any patents or proprietary rights of third parties on acceptable terms, or at all, and any licenses may require substantial royalties or other payments by us. Even if our strategic partners, licensees or we were able to obtain rights to the third-party's intellectual property, these rights may be non-exclusive, thereby giving our competitors access to the same intellectual property. Ultimately, we may be unable to commercialize some of our potential products or may have to cease some of our business operations as a result of patent infringement claims, which could severely harm our business.

Moreover, we are currently and may become party to future adversarial proceedings regarding our patent portfolio or the patents of third parties. Such proceedings could include supplemental examination or contested post-grant proceedings such as inter partes review, reexamination, interference or derivation proceedings before the U.S. Patent and Trademark Office and challenges in U.S. District Court. Patents may be subjected to opposition, post-grant review or comparable proceedings lodged in various foreign, both national and regional, patent offices. The legal threshold for initiating litigation or contested proceedings may be low, so that even lawsuits or proceedings with a low probability of success might be initiated. Litigation and contested proceedings can also be expensive and time-consuming, and our adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we can.

Any lawsuits or claims relating to infringement of intellectual property or our patent portfolio could subject us to significant liability for damages and invalidate our proprietary rights. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop making, selling or using products or technologies that allegedly infringe the asserted intellectual property;
- lose the opportunity to license our technology to others or to collect royalty payments based upon successful protection and assertion of our intellectual property rights against others;

- incur significant legal expenses;
- pay substantial damages or royalties to the party whose intellectual property rights we may be found to be infringing;
- pay the attorney's fees and costs of litigation to the party whose intellectual property rights we may be found to be infringing;
- redesign those products that contain the allegedly infringing intellectual property, which could be costly, disruptive and/or infeasible; or
- attempt to obtain a license to the relevant intellectual property from third parties, which may not be available on reasonable terms or at all.

Any litigation or claim against us, even those without merit, may cause us to incur substantial costs, and could place a significant strain on our financial resources, divert the attention of management from our core business and harm our reputation. In addition, we generally indemnify our customers and distributors with respect to infringement by our products of the proprietary rights of third parties. If third parties assert infringement claims against our customers or distributors, we may be required to initiate or defend protracted and costly litigation on behalf of our customers or distributors, regardless of the merits of these claims. If any of these claims succeed or settle, we may be forced to pay damages or settlement payments on behalf of our customers or distributors or may be required to obtain licenses for the products they use. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers may be forced to stop using our products.

***We are currently, and may in the future be, subject to claims and lawsuits that could cause us to incur significant legal expenses and result in harm to our business.***

We are currently party to various commercial, personal injury, and intellectual property litigation and have previously been subject to a purported securities class action lawsuit, shareholder derivative litigation, and intellectual property infringement lawsuits, and we may be subject to additional claims and lawsuits in the future. In addition, we, as well as certain of our officers and sales representatives, are subject to claims or lawsuits from time to time. Regardless of the outcome, these lawsuits may result in significant legal fees and expenses and could divert management's time and other resources. If the claims contained in these lawsuits are successfully asserted against us, we could be liable for damages and be required to alter or cease certain of our business practices or product lines. Any of these outcomes could cause our business, financial performance and cash position to be negatively impacted. Litigation may also harm our relationships with existing customers and subject us to negative publicity, each of which could harm our business and financial results.

***Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain.***

Our success depends significantly on our ability to protect our proprietary rights to the technologies used in our products and procedural solutions. 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. If we do not adequately protect our intellectual property and proprietary technology, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and impact our profitability.

Our pending U.S. and foreign patent applications may not issue as patents at all or not in a form that will be advantageous to us or may issue and be subsequently successfully challenged by others and invalidated. Our existing patents and any patents issued in the future may not have claims with a scope sufficient to protect our products, any additional features we develop for our products or any new products. Both the patent application process and the process of managing patent disputes can be time consuming and expensive. Other parties may have developed technologies that may be related or competitive to our technology, may have filed or may file patent applications and may have received or may receive patents that overlap or conflict with our patent applications, either by claiming the same methods or devices or by claiming subject matter that could dominate our patent position. Further, competitors may also be able to design around our patents or develop products that provide outcomes that are comparable to our products but fall outside of the scope of our patent protection.

We rely on our trademarks, trade names and brand names to distinguish our products from the products of our competitors, and we have registered or applied to register many of these trademarks. We cannot assure you that our trademark applications will be approved. Third parties may also oppose our trademark applications, or otherwise challenge our use of the trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition, and could require us to devote resources to advertising and marketing new brands. Further, we cannot assure you that competitors will not infringe upon our trademarks, or that we will have adequate resources to enforce our trademarks.

***If we seek to enforce our intellectual property rights through litigation or other proceedings, it could require us to spend significant time and money, with uncertain results.***

In the event a competitor infringes upon our patent or other intellectual property rights, enforcing those rights may be costly, difficult and time consuming. We may not have sufficient resources to enforce our intellectual property rights or to defend our patents against a challenge. Our ability to enforce our patent rights depends on our ability to detect infringement. It may be difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's or potential competitor's product. The medical device industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. It is not unusual for parties to exchange letters surrounding allegations of intellectual property infringement and licensing arrangements. In addition, the patent positions of medical device companies, including our patent position, may involve complex legal and factual questions, and, therefore, the scope, validity and enforceability of any patent claims that we have or may obtain cannot be predicted with certainty.

***If we are unable to protect the confidentiality of our trade secrets, our business and competitive position could be harmed.***

We rely upon non-disclosure agreements and invention assignment agreements with our employees, consultants and third parties to protect our confidential and proprietary information and trade secrets. In addition to contractual measures, we try to protect the confidential nature of our proprietary information using physical and technological security measures. Such measures may not, for example, in the case of misappropriation of a trade secret by an employee or third party with authorized access, provide adequate protection for our proprietary information. Our security measures may not prevent an employee or consultant from misappropriating our trade secrets and providing them to a competitor, and recourse we take against such misconduct may not provide an adequate remedy to protect our interests fully. Unauthorized parties may also attempt to copy or reverse engineer certain aspects of our products that we consider proprietary. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, trade secrets may be independently developed by others in a manner that could prevent legal recourse by us. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any such information was independently developed by a competitor, our business and competitive position could be harmed.

***We may not be able to enforce our intellectual property rights throughout the world.***

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the U.S. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. This could make it difficult for us to stop infringement of our foreign patents, if obtained, or the misappropriation of our other intellectual property rights. For example, some foreign countries have compulsory licensing laws under which a patent owner must grant licenses to third parties. In addition, some countries limit the enforceability of patents against third parties, including government agencies or government contractors. In these countries, patents may provide limited or no benefit. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries.

Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate. In addition, changes in the law and legal decisions by courts in the U.S. and foreign countries may affect our ability to obtain adequate protection for our technology and the enforcement of our intellectual property.

***Third parties may assert ownership or commercial rights to inventions we develop.***

We enter into agreements with collaborators that provide for the ownership of intellectual property arising from our collaborations and product development initiatives. These collaborators and other third parties may in the future make claims challenging the inventorship or ownership of our intellectual property. In addition, we may face claims by third parties that our agreements with employees, contractors or consultants obligating them to assign intellectual property to us are ineffective or in conflict with prior or competing contractual obligations of assignment, which could result in ownership disputes regarding intellectual property we have developed or will develop and interfere with our ability to capture the commercial value of such intellectual property. Litigation may be necessary to resolve an ownership dispute, and if we are not successful, we may be precluded from using certain intellectual property or may lose our exclusive rights in that intellectual property. Either outcome could harm our business and competitive position.

In addition, in certain instances we have agreed to pay consultants royalties, milestones and other payments in connection with their product development efforts. There can be no assurance that these consultants will not claim to be entitled to a royalty, milestone or other payment, even if we do not believe that it is warranted. Any such claim against us, even those without merit, may cause us to incur substantial costs, and could place a strain on our financial resources, divert the attention of management from our core business and harm our reputation.

***Third parties may assert that our employees or consultants have wrongfully used or disclosed confidential information or misappropriated trade secrets or are in breach of non-competition or non-solicitation agreements with our competitors.***

We employ and contract with individuals who previously worked with other companies, including our competitors or potential competitors. Although we try to ensure that our employees and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our personnel, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of a former employer or other third party. In addition, we have been and may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement with a third party. Litigation may be necessary to defend against these claims. If we fail in defending any such claims or settling those claims, in addition to paying monetary damages or a settlement payment, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and/or be a distraction to management and other employees.

***If personal injury lawsuits are brought against us, our business may be harmed, and we may be required to pay damages that exceed our insurance coverage.***

Our business exposes us to potential product liability claims that are inherent in the testing, manufacture and sale of medical devices for surgical procedures, as well as potential malpractice claims that are inherent in the provision of IONM services. Surgical procedures using our products and services often involve significant risk of serious complications, including bleeding, nerve injury, paralysis and even death. We could become the subject of product liability lawsuits alleging that component failures, malfunctions, manufacturing flaws, design defects or inadequate disclosure of product-related risks or product-related information resulted in an unsafe condition or injury to patients. Furthermore, as we continue to launch more complex products and technologies, including products based on the MAGEC platform and products like Pulse and other technology in furtherance of our strategy to make spine surgery more intelligent, our litigation risk may increase. Our biologics products may also expose us to potential product liability claims, including due to the risk of transmitting disease to human recipients. Additionally, our IONM services business could become the subject of medical malpractice lawsuits alleging negligence on the part of our neurophysiologists and/or oversight physicians.

We have had, and continue to have, personal injury claims relating to our products and clinical services and in the future, we may be subject to additional claims, some of which may have a negative impact on our business, results of operations or financial position. Regardless of the merit or eventual outcome, these claims may result in:

- decreased demand for our products;
- injury to our reputation;
- significant litigation costs;
- substantial monetary awards to or costly settlements with patients;
- product recalls;
- material defense costs;
- loss of net sales;

- increased insurance costs;
- the inability to commercialize new products or product candidates; and
- diversion of management attention from pursuing our business strategy.

Our existing insurance coverage for personal injury claims may be inadequate to protect us from any liabilities we might incur. If a personal injury claim or series of claims is brought against us for uninsured liabilities or in excess of our insurance coverage, our business could suffer. In addition, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts or scope to protect us against losses. Any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources and adversely affect or eliminate the prospects for commercialization of our IONM business or sales of a product or product candidate that is the subject of any such claim.

**Risks Related to Regulatory and Compliance**

***We are subject to rigorous FDA and other governmental regulations regarding the development, manufacture, and sale of our products and we may incur significant expenses to comply with these regulations and develop products that satisfy these regulations.***

The medical devices we manufacture and market are subject to rigorous regulation by the FDA and numerous other federal, state and foreign governmental authorities, including regulations that cover, among other things, the composition, labeling, testing, clinical study, manufacturing, packaging, marketing and distribution of our products.

We are required to register with the FDA as a device manufacturer and tissue establishment. As a result, we are subject to periodic inspection by the FDA for compliance with the FDA's Quality System Regulation (QSR) and Good Tissue Practices requirements, which require manufacturers of medical devices and tissue establishments to adhere to certain regulations, including testing, quality control and documentation procedures. Our compliance with applicable regulatory requirements is subject to continual review and is rigorously monitored through periodic inspections by the FDA. In the European Community, we are required to maintain certain ISO certifications in order to sell our products, and are subject to periodic inspections by Notified Bodies to obtain and maintain these certifications. If we or our suppliers fail to adhere to QSR, ISO or other applicable regulations and standards, it could negatively impact product production and regulatory clearances and could result in fines. Further our products could be subject to field safety corrective actions or recall by the FDA or other regulatory bodies, or voluntarily by us, to investigate potential quality or safety issues, in the event of a defect in the design, manufacture, labeling, or other deficiency of a product or in the event that a product poses an unacceptable risk to health. For example, we have previously issued field safety notices for certain of our MAGEC and Precice systems, and we have imposed voluntary ship holds on these products in the past. Further, for a portion of 2021, the CE mark for these products was suspended. While we have since resumed sales of MAGEC and Precice titanium systems in our key markets, for current and future versions of our MAGEC and Precice systems, and other systems we may offer in the future, we may need to conduct additional studies, gather additional data, or re-design or re-engineer such products, which could be costly. In certain cases, we may withdraw products from a market or markets or decide not to launch new products, which could have a material adverse effect on our business. Additionally, if we are the subject of any claims or lawsuits related to the issues identified in the field safety notices or otherwise, whether from impacted customers, distributors, surgeons or patients, it could have a material adverse effect on our business and results of operations.

Most medical devices must receive FDA clearance or approval before they can be commercially marketed in the U.S. In addition, the FDA may require testing and surveillance programs to monitor the effects of approved products that have been commercialized, and can prevent or limit further marketing of a product based upon the results of such post-marketing programs. In addition, the Federal Medical Device Reporting Regulations require us to provide information to the FDA whenever there is evidence that reasonably suggests that a device may have caused or contributed to a death or serious injury or, if a malfunction were to occur, that could cause or contribute to a death or serious injury. Furthermore, most major markets for medical devices outside the U.S. require clearance, approval or compliance with certain standards before a product can be commercially marketed. The process of obtaining regulatory clearances and approvals to market a medical device, particularly from the FDA and certain foreign governmental authorities, can be costly and time-consuming, and clearances and approvals may not be granted for future products or product improvements on a timely basis, if at all. Delays in receipt of, or failure to obtain, clearances or approvals for future products or product improvements could result in delayed realization of product sales or in substantial additional costs, which could have a material adverse effect on our business or results of operations or prospects. At any time after clearance or approval of a product, the FDA or other applicable regulator, including Notified Bodies, may conduct periodic inspections to determine compliance with our quality system and other laws and regulations governing the development, labeling, testing, manufacturing, packaging, marketing and distribution of our products. The results of these inspections can include observations, warning letters, or other forms of enforcement. If the FDA or another regulator were to conclude that we are not in compliance with applicable laws or regulations, or that any of our products are ineffective or pose an unreasonable health risk, they could ban such products, detain or seize adulterated or misbranded products, order a recall, repair, replacement, or refund of payment of such products, revoke existing product clearances or delay clearance of future products, refuse to provide certificates for exports, and/or require us to notify healthcare professionals and others that the products present unreasonable risks of substantial harm to the public health. The FDA or other regulators may also assess civil or criminal penalties against us, our officers or employees and impose operating restrictions on a company-wide basis.

Also, the procurement and transplantation of allograft bone tissue is subject to the criminal statute NOTA and state rules and regulations which govern, among other things, payments we make to vendors in consideration for the services they provide in connection with the recovery and screening of donors. Failure to comply with such laws could result in enforcement action against us and a disruption to these product lines (and the net sales associated with these products).

***Failure or alleged failure to comply with FDA and other governmental regulations can result in investigations and other regulatory proceedings, which are expensive and could divert management attention.***

If the FDA or other governmental authorities in the U.S. or abroad believes we are not conducting our business in compliance with applicable laws or regulations, such governmental authority can initiate investigations or other regulatory proceedings. Responding to such investigations and proceedings may cause us to incur substantial costs, and could place a significant strain on our financial resources and divert the attention of management from our core business. We could be subject to proceedings to detain or seize our products, recall our products, or restrict our operations. Moreover, governmental authorities can ban or request the recall, repair, replacement or refund of the cost of any device or product we manufacture or distribute. Any of the foregoing actions could result in decreased sales as a result of negative publicity and product liability claims, and could have a material adverse effect on our financial condition, results of operations and prospects.

***We are subject to federal, state and foreign fraud and abuse laws and health information privacy and security laws, which, if violated, could subject us to substantial penalties.***

There are numerous U.S. federal and state, as well as foreign, laws pertaining to healthcare fraud and abuse, including anti-kickback, false claims and physician transparency laws. Our relationships with physicians, providers and hospitals are subject to scrutiny under these laws. We may also be subject to patient privacy regulation by both the federal government and the states and foreign jurisdictions in which we conduct our business.

Healthcare fraud and abuse laws are broad in scope and are subject to evolving interpretation, which could require us to incur substantial costs to monitor compliance or to alter our practices if they are found not to be in compliance. Violations of these laws may be punishable by criminal or civil sanctions, including substantial fines, imprisonment and exclusion from participation in governmental healthcare programs. Despite implementation of a comprehensive global healthcare compliance program, we cannot provide assurance that any of the healthcare fraud and abuse laws will not change or be interpreted in the future in a manner which restricts or adversely affects our business activities or relationships with healthcare professionals, nor can we make any assurances that authorities will not challenge or investigate our current or future activities under these laws.

Responding to government requests and investigations requires considerable resources, including the time and attention of management. If we were to become the subject of an enforcement action it could result in negative publicity, penalties, fines, the exclusion of our products from reimbursement under federally-funded programs and/or prohibitions on our ability to sell our products, which could have a material adverse effect on our results of operations, financial condition and liquidity.

***We may fail to obtain or maintain foreign regulatory approvals to market our products in other countries.***

We currently market and sell our products in a number of countries around the world, and we intend to continue to expand our international operations. International jurisdictions require separate regulatory approvals and compliance with numerous and varying regulatory requirements. The approval procedures vary among countries and may involve requirements for additional studies and gathering of additional data. Clearance or approval by the FDA does not ensure approval or certification by regulatory authorities in other countries or jurisdictions, and approval or certification by one foreign regulatory authority does not ensure approval or certification by regulatory authorities in other foreign countries or by the FDA.

The European Union requires that manufacturers of medical devices obtain the right to bear the CE conformity marking which designates compliance with existing directives and standards regulating the design, manufacture and distribution of medical devices in member countries of the European Union. The European Union has also adopted the MDR which replaced existing directives and imposes stricter requirements for the marketing and sale of medical devices, including new clinical evaluation, quality system, and post-market surveillance requirements. Effective May 2021, medical devices marketed in the European Union require certification according to these new requirements, except that devices with valid CE certificates, issued pursuant to the MDD before May 2021, may be placed on the market until May 2024. In February 2023, the European Parliament approved a proposal by the European Commission which further extends the transition period from May 2024 to December 2027 or December 2028, depending on the device classification. We have incurred significant costs in complying with these regulations and anticipate we will continue to incur additional costs in order to maintain our devices under these regulations. Moreover, the availability of European Union Notified Body services certified to the new requirements is limited, which could delay the marketing approval for some of our products. Failure to meet the requirements of the regulation could adversely impact our business in the European Union and other countries that utilize or rely on European Union requirements for medical device registrations.

Additionally, pursuant to guidance issued by the UK Government as a result of the UK formally withdrawing from the European Union, the MHRA became the standalone medicines and medical devices regulator for the UK as of January 1, 2021. A new mark referred to as UKCA, or UK Conformity Assessed, has also been introduced and will replace the CE conformity mark in the UK. Obtaining the UKCA conformity mark is optional from January 2021 and will have rolling requirements for MDD/MDR certified devices through 2027. Although CE conformity marketing and certificates issued by Notified Bodies will continue to be recognized in the UK through 2027, all medical devices were required to be registered with the MHRA as of January 1, 2021 in accordance with the provided grace period depending on the product risk classification. Complying with this new regulatory framework will require us to invest in additional resources and could be expensive, time-consuming and disruptive to our existing operations in the UK.

The global regulatory environment is becoming increasingly complex and we expect the time and expense of obtaining and maintaining foreign regulatory approvals for our products to increase. We cannot be certain that we will receive necessary approvals or certifications to commercialize our products in foreign jurisdictions on a timely basis, or at all. If we fail to receive or maintain necessary approvals or certifications to commercialize our products in foreign jurisdictions our business, results of operations and financial condition could be adversely affected.

***If we fail to obtain, or experience significant delays in obtaining, FDA clearances or approvals for our future products or product enhancements, our ability to commercially distribute and market our products could suffer.***

The process of obtaining regulatory clearances or approvals to market a medical device, particularly from the FDA, can be costly and time consuming, and there can be no assurance that such clearances or approvals will be granted on a timely basis, if at all. In particular, the FDA permits commercial distribution of a new, non-exempt, non-Class I medical device only after the device has received 510(k) clearance or receives approval under the PMA process. If clinical trials of our current or future product candidates do not produce results necessary to support regulatory approval, we will be unable to commercialize these products, which could have a material adverse effect on our financial results.

The FDA will clear marketing of a medical device through the 510(k) process if it is demonstrated that the new product is substantially equivalent to other 510(k)-cleared products. The process of obtaining PMA approval is much more costly, lengthy and difficult than the 510(k) clearance process. Additionally, any modification to a 510(k)-cleared device that could significantly affect its safety or efficacy, or that would constitute a major change in its intended use, requires a new 510(k) clearance or, possibly, a PMA. The FDA requires each manufacturer to make the determination of whether a modification requires a new 510(k) notification or PMA application in the first instance, but the FDA can review any such decision. If the FDA disagrees with our decisions regarding whether new clearances or approvals are necessary, the FDA may retroactively require us to seek 510(k) clearance or PMA approval. For device modifications that we conclude do not require a new regulatory clearance or approval, we may be required to recall and to stop marketing the modified devices if the FDA or other agency disagrees with our conclusion and requires new clearances or approvals for the modifications. Our failure to comply with such regulations could lead to the imposition of injunctions, suspensions or loss of regulatory approvals, product recalls, termination of distribution, or product seizures. In the most egregious cases, criminal sanctions or closure of our manufacturing facilities are possible.

***Legislative or regulatory reforms in the U.S. may make it more difficult and costly for us to obtain regulatory clearances or approvals for our products or to produce, market or distribute our products after clearance or approval is obtained.***

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the regulation of medical devices or the reimbursement thereof in the U.S. In addition, the FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Any new statutes, regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of any future products or make it more difficult to manufacture, market or distribute our products or future products. We cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on our business in the future. Such changes could, among other things, require:

- additional testing prior to obtaining clearance or approval;
- changes to manufacturing methods;
- recall, replacement or discontinuance of our products or future products; or
- additional record keeping.
- Any of these changes could require substantial time and cost and could harm our business and our financial results.

***The misuse or off-label use of our products may harm our reputation in the marketplace, result in injuries that lead to product liability suits or result in costly investigations, fines or sanctions by regulatory bodies if we are deemed to have engaged in the promotion of these uses, any of which could be costly to our business.***

Pursuant to FDA regulations, medical devices may be promoted only for their cleared or approved indications and in accordance with the provisions of the cleared or approved label. Although physicians are permitted to use medical devices for indications other than those cleared or approved by the FDA based on their medical judgment, the FDA generally prohibits manufacturers and distributors of medical devices from promoting products for such off-label uses. We train our marketing personnel and independent sales representatives and distributors to not promote our products for uses outside of the FDA-cleared indications. Although we believe our marketing, promotional materials and training programs for physicians do not constitute promotion of unapproved uses of our products, if the FDA or any foreign regulatory body determines that our marketing, promotional materials or training programs constitute promotion of an off-label use, we could be subject to significant fines in addition to regulatory enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action under other regulatory authority, such as false claims laws, if they consider our business activities to constitute promotion of an off-label use, which could result in significant penalties, including, but not limited to, criminal, civil and administrative penalties, damages, fines, disgorgement, exclusion from participation in government healthcare programs and the curtailment of our operations.

In addition, there may be increased risk of injury to patients if physicians attempt to use our products off-label. Furthermore, the use of our products for indications other than those cleared by the FDA or approved by any foreign regulatory body may not effectively treat such conditions, which could harm our reputation in the marketplace among physicians and patients.

***If we or our suppliers fail to comply with the FDA's quality system regulations, ISO or other applicable regulations and standards, the manufacture and processing of our products could be delayed or interrupted and we may be subject to an enforcement action by the FDA or other government agencies.***

We and our suppliers are required to comply with the QSR, ISO and other applicable regulations and standards, which cover the methods and documentation of the design, testing, production or processing, control, quality assurance, labeling, packaging, storage and shipping of our products. The FDA and other regulatory bodies enforce compliance with certain regulatory requirements and standards through periodic inspections. If we or one of our suppliers receive a warning letter or significant observed non-conformities are identified as a result of an inspection or if any corrective action plan is deemed not to be sufficient, the release of our products could be delayed. We have undergone inspections by the FDA and other regulatory bodies regarding our allograft business and regarding our medical device activities. In connection with these inspections, regulatory agencies have requested minor corrective actions, which we have implemented. The FDA and other regulatory agencies may impose additional inspections at any time and we may be required to take corrective actions in the future to address any findings.

Additionally, we are the legal manufacturer of record for the products that are distributed and labeled by us, regardless of whether the products are manufactured by us or our suppliers. Thus, a failure by us or our suppliers to comply with applicable regulatory requirements can result in enforcement action against us by the FDA, which may include any of the following sanctions:

- fines, injunctions, and civil penalties;
- recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing our request for 510(k) clearance or premarket approval of new products;
- withdrawing 510(k) clearance or premarket approvals that are already granted; and
- criminal prosecution.

***We or our suppliers may be the subject of claims for non-compliance with FDA regulations in connection with the processing or distribution of allograft products.***

It is possible that allegations may be made against us or against donor recovery groups or tissue banks, including those with which we have a contractual relationship, claiming that the acquisition or processing of tissue for allograft products does not comply with applicable FDA regulations or other relevant statutes and regulations. Allegations like these could cause regulators or other authorities to take investigative or other action against us, or could cause negative publicity for us or our industry in general. These actions or any negative publicity could cause us to incur substantial costs, divert the attention of management from our business, harm our reputation and cause the market price of our shares to decline.

***As a U.S. federal government contractor, we are subject to a number of procurement rules and regulations.***

Our contracts with the U.S. federal government are subject to specific procurement requirements including various import and export, security, contract pricing and cost, contract termination and adjustment, subcontracting, and audit requirements. These requirements, although customary in government contracts, increase our performance and compliance costs. In addition, failure to comply with these regulations and requirements could result in reductions of the value of contracts, contract modifications or termination, and the assessment of penalties and fines, which could negatively impact our results of operations and financial condition. Our failure to comply with these regulations and requirements could also lead to suspension or debarment, for cause, from government contracting or subcontracting for a period of time. Among the causes for debarment are violations of various statutes, including those related to product sourcing, product pricing, security regulations, employment practices and policies, and subcontracting requirements. The termination of a government contract as a result of any of these acts could have a negative impact on our results of operations and financial condition and could have a negative impact on our reputation and ability to procure other government contracts in the future.

***Compliance with Commission regulations relating to "conflict minerals" may increase our costs and adversely affect our business.***

We are subject to Commission regulations that require us to determine whether our products contain certain specified minerals, referred to under the regulations as "conflict minerals", and, if so, to perform an extensive inquiry into our supply chain, in an effort to determine whether or not such conflict minerals originate from the Democratic Republic of Congo, or an adjoining country. Compliance with these requirements has been time-consuming for management and our supply chain personnel (as well as time-consuming for our suppliers), and we expect that compliance will continue to require the expenditure of resources by us and them. In addition, to the extent any of our disclosures are perceived by the market to be "negative," it may cause customers to refuse to purchase our products. Further, if we determine to make any changes to products, processes, or sources of supply, it may result in additional costs, which may adversely affect our business.

***Our relationships with physicians could be subject to additional scrutiny from regulatory enforcement authorities and could subject us to possible administrative, civil or criminal sanctions.***

Federal and state laws and regulations impose restrictions on our relationships with physicians. We have entered into consulting agreements, license agreements and other agreements with physicians in which we provided equity awards or cash or both as compensation. Some of the physicians with which we have such consulting and other agreements are affiliated with some of our customers. Finally, we have other arrangements with physicians, including for research and development grants, education, training, and for other purposes as well.

We could be adversely affected if regulatory agencies were to interpret our financial relationships with these physicians, who may be in a position to influence the ordering of and use of our products for which governmental reimbursement may be available, as being in violation of applicable laws. If our relationships with physicians are found to be in violation of the laws and regulations that apply to us, we may be required to restructure the arrangements and could be subject to administrative, civil and criminal penalties, including exclusion from participation in government healthcare programs and the curtailment or restructuring of our operations, any of which could negatively impact our ability to operate our business and our results of operations.

***Our business involves the use of hazardous materials and we and our third-party manufacturers must comply with environmental laws and regulations, which may be expensive and restrict how we do business.***

Our third-party manufacturers' activities and our own activities involve the controlled storage, use and disposal of hazardous materials or materials that can become hazardous as result of the manufacturing process. For example, we develop porous titanium implants using additive manufacturing technology, or 3D printing, which generates dust that is highly combustible. We and our manufacturers are subject to federal, state, local and foreign laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these hazardous materials. We currently carry limited insurance covering environmental claims relating to the use of hazardous materials. Although we believe that our safety procedures for handling and disposing of these materials and waste products comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental injury or contamination from the use, storage, handling or disposal of hazardous materials. In the event of an accident, state or federal or other applicable authorities may curtail our use of these materials and interrupt our business operations. In addition, if an accident or environmental discharge occurs, or if we discover contamination caused by prior operations, including by prior owners and operators of properties we acquire, we could be liable for cleanup obligations, damages and fines. If such unexpected costs are substantial, this could significantly harm our financial condition and results of operations.

***Legal, regulatory, or market pressures to address climate change could adversely affect our business, financial condition or results of operations.***

Federal, international, state and local regulatory authorities have increased their efforts to limit the impact of climate change through a variety of initiatives, including regulating greenhouse gas emissions (and establishing internal processes or systems to track them), mandating or promoting the use of renewable energy, requiring climate-related disclosures and programs, and imposing additional taxes on fuel and energy. If legislation or regulations are enacted in the U.S. or in other jurisdictions in which we do business that impose more stringent restrictions and requirements than our current legal or regulatory obligations, we and our manufacturers, suppliers and vendors may incur additional costs to meet the regulatory obligations, which could cause disruption in the sourcing, manufacturing and distribution of our products and adversely affect our business, financial condition or results of operations.

Additionally, the impacts of climate change may further influence customer preferences and requirements, such as increased demand for products with lower environmental footprints, and for companies to produce and demonstrate progress against reduction targets for greenhouse gas emissions. Failure to respond to customer requirements or otherwise adopt measures to curtail greenhouse gas emissions could potentially result in loss of market share.

**Risks Related to Our Financial Results and Need for Financing**

***We may be unable to grow our net sales or earnings as anticipated, which may have a material adverse effect on our future operating results.***

We have experienced significant growth since our inception, and we have increased our net sales from $38.4 million in 2004, the year of our initial public offering, to $1.2 billion in 2022. Our ability to achieve future growth will depend upon, among other things, the effectiveness of our growth strategies, which we cannot assure will be successful. In addition, we may have more difficulty maintaining our prior rate of growth of net sales or recent levels of profitability and cash flow. Our future success will depend upon various factors, including the strength of our brand image, the market success of our current and future products, competitive conditions and our ability to manage increased sales, if any, or implement our growth strategy. In addition, we anticipate investing in and expanding our infrastructure and adding personnel in connection with our anticipated growth, which we expect will cause our selling, marketing and administrative expenses to increase. Because these expenses are generally fixed, particularly in the short-to-medium term, our operating and financial results may be adversely impacted if we do not achieve our anticipated growth.

***We have a significant amount of outstanding indebtedness, and our financial condition and results of operations could be adversely affected if we do not effectively manage our liabilities.***

As of December 31, 2022, we had outstanding $450.0 million aggregate principal amount of our 1.00% Convertible Senior Notes due June 1, 2023, or the 2023 Notes, and $450.0 million aggregate principal amount of our 0.375% Convertible Senior Notes due March 15, 2025, or the 2025 Notes. This significant amount of debt has important risks to us and our investors, including:

- requiring a portion of our cash flow from operations to make interest payments on this debt;
- increasing our vulnerability to general adverse economic and industry conditions;
- reducing the cash flow available to fund capital expenditures and other corporate purposes and to grow our business;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry; and
- limiting our ability to borrow additional funds as needed or take advantage of business opportunities as they arise.

In addition, to the extent we draw down amounts under our 2020 revolving senior credit facility, or the 2020 Facility, or otherwise incur additional indebtedness, the risks described above could increase. Further, our ability to access other sources of liquidity through the capital markets, enter into additional credit facilities, term loans, or other similar arrangements may also be constrained by volatile financial market conditions, unfavorable lending terms, reduced investor and/or lender interest or capacity, as well as our liquidity, leverage, and general creditworthiness. We can provide no assurance as to successfully completing such transactions, particularly given the continued unpredictability of the COVID-19 pandemic and global macroeconomic conditions which could rapidly and materially deteriorate or otherwise change.

If we increase our indebtedness, our actual cash requirements in the future may be greater than expected. Our cash flow from operations may not be sufficient to repay all of the outstanding debt as it becomes due, and we may not be able to borrow money, sell assets or otherwise raise funds on acceptable terms, or at all, to refinance our debt. Further, there are a large number of shares of common stock reserved for issuance upon the potential conversion of our 2023 Notes and 2025 Notes and the warrants that we issued as part of the related bond hedge transactions related to the 2023 Notes and 2025 Notes. If any of these shares are issued, the issuance of these shares may depress the market price of our common stock and our existing stockholders could experience dilution.

***If we fail to comply with the covenants and other obligations under our credit facility, the lenders may be able to accelerate amounts owed under the facility and may foreclose upon the assets securing our obligations.***

In February 2020, we entered into a Second Amended and Restated Credit Agreement, or the 2020 Credit Agreement, with respect to the 2020 Facility, which replaced the previous Amended and Restated Credit Agreement we had entered into in April 2017. The 2020 Credit Agreement was further amended in May 2020 to, among other things, provide additional flexibility in determining the financial covenant leverage ratios for the second and third fiscal quarters of 2020 and to adjust certain margin and benchmark rates used to determine interest under the 2020 Facility. The 2020 Credit Agreement provides for secured revolving loans, multicurrency loan options and letters of credit in an aggregate amount of up to $550.0 million. The 2020 Credit Agreement also contains an expansion feature, which allows us to increase the aggregate principal amount of the 2020 Facility provided we remain in compliance with the underlying financial covenants on a pro forma basis, including but not limited to, compliance with the consolidated interest coverage ratio and certain consolidated net leverage ratios. All of our assets and the assets of our material domestic subsidiaries are pledged as collateral under the 2020 Facility (subject to customary exceptions) and each of our material domestic subsidiaries guarantee the 2020 Facility. The covenants set forth in the 2020 Credit Agreement impose limitations on, among other things, our ability to: create liens on assets, incur additional indebtedness, make investments, make acquisitions and other fundamental changes, sell and dispose of property or assets, pay dividends and other distributions, change the business conducted, engage in certain transactions with affiliates, enter into burdensome agreements, limit certain use of proceeds, amend organizational documents, change accounting policies or reporting practices, modify or terminate documents related to certain indebtedness, enter into sale and leaseback transactions, fund any person or business that is the subject of sanctions, and use proceeds for any breach of anti-corruption laws. If we fail to comply with the covenants and our other obligations under the 2020 Facility, the lenders would be able to accelerate the required repayment of amounts due under the 2020 Credit Agreement and, if they are not repaid, could foreclose upon our assets securing our obligations under the 2020 Facility.

***We may need additional financing in the future to meet our capital needs or to make opportunistic acquisitions and such financing may not be available on favorable terms, if at all, and may be dilutive to existing stockholders.***

If our cash from operations and available liquidity is insufficient to fund our operating expenses, capital expenditures, contingent consideration liabilities and other capital needs, we may need additional financing. In addition, in furtherance of our growth strategy and global expansion efforts, we intend to continue to invest in our business, including through acquisitions and strategic transactions. These investments may be expensive and may require additional sources of financing. As of December 31, 2022, we had $248.7 million in cash and cash equivalents, and the ability to draw $550.0 million on our 2020 Facility. Additionally, as of December 31, 2022, we had outstanding $450.0 million aggregate principal amount of the 2023 Notes, which have a maturity date of June 1, 2023 and $450.0 million aggregate principal amount of the 2025 Notes, which have a maturity date of March 15, 2025. We may seek to raise capital from public and private debt and equity offerings, borrowings under our existing or future credit facilities or other sources. We may be unable to obtain any desired additional financing on terms favorable to us, if at all. If adequate funds are not available on acceptable terms, we may be unable to meet our capital needs, fund our expansion, successfully develop or enhance products or respond to competitive pressures, any of which could negatively affect our business. If we raise additional funds through the issuance of equity securities, our stockholders will experience dilution of their ownership interest. If we raise additional funds by issuing debt, we may be subject to limitations on our operations due to restrictive covenants. Additionally, our ability to make scheduled payments or refinance our obligations will depend on our operating and financial performance, which in turn is subject to prevailing economic conditions and financial, business and other factors beyond our control.

***We could be subject to changes in tax rates, the adoption, evolution or change of new and/or amended U.S. or international tax legislation or exposure to additional tax liabilities.***

We are subject to taxation in the U.S. and numerous foreign jurisdictions, including the Netherlands, the location of our international headquarters. Significant judgment is required to determine and estimate our worldwide tax liabilities. Due to economic and political conditions, tax rates in various jurisdictions may be subject to significant change. For example, on January 1, 2022, a provision of the Tax Cuts and Jobs Act of 2017 went into effect which eliminated the option to deduct research and development expenditures in the year incurred and requires taxpayers to capitalize and amortize domestic research and development expenditures over five years for regular tax purposes and foreign expenditures research and development expenditures over fifteen years when calculating a domestic corporation's controlled foreign corporation's earnings and profits. This provision adversely impacted our cash flows from operations during the year ended December 31, 2022. Our effective income tax rates have been, and could in the future be, adversely affected by changes in tax laws or interpretations of those tax laws; by stock-based compensation and other non-deductible expenses; by changes in the mix of earnings in countries with differing statutory tax rates; or by changes in the valuation of our deferred tax assets and liabilities.

We have centralized international operations in Amsterdam, the Netherlands and have entered into intercompany transfer pricing arrangements, including the licensing of intangibles. We continue to streamline our international operations to better align with and support our international business activities and markets through changes in how manage the development and use of our intangible property and how we structure our international procurement and customer service functions. There can be no assurance that the taxing authorities of the jurisdictions in which we operate, or will operate or to which we are otherwise deemed to have sufficient tax presence, will not challenge the tax benefits that we ultimately expect to realize as a result of our international structure. In addition, current and future changes to U.S. and non-U.S. tax laws, including pending U.S. tax reform of international business and the continuing development of the Organization for Economic Cooperation and Development Base Erosion and Profit Shifting recommendations, could negatively impact the anticipated tax benefits of our international structure. Any long-term benefits to our tax rate will also depend on our ability to achieve our anticipated international growth projections and to operate our business in a manner consistent with our international structure and intercompany transfer pricing arrangements. If we do not operate our business consistent with the structure and applicable tax provisions, we may fail to achieve the financial efficiencies that we anticipate as a result of the structure and our future operating results and financial condition may be negatively impacted.

Finally, we may be subject in the future to examination of our income tax returns by the Internal Revenue Service and other taxing authorities which may result in the assessment of additional income taxes. We regularly assess the likelihood of an adverse outcome resulting from these examinations to determine the adequacy of our provision for taxes. There can be no assurance as to the outcome of these examinations. If our effective tax rates were to increase, particularly in the U.S. or the Netherlands or if the ultimate determination of our taxes owed is for an amount in excess of amounts previously accrued, our financial condition, cash flows or results of operations could be adversely affected.

**Risks Related to the Securities Markets and Ownership of Our Common Stock**

***We expect that the price of our common stock will fluctuate substantially, potentially adversely affecting the ability of investors to sell their shares.***

The market price of our common stock may be subject to wide fluctuations, which may negatively affect the ability of investors to sell our shares at consistent prices. Fluctuation in the stock price may occur due to many factors, including, without limitation:

- general market conditions and other factors related to the economy or otherwise, including factors unrelated to our operating performance or the operating performance of our competitors;
- people's expectations, favorable or unfavorable, as to the likely growth of the markets in which we participate;
- negative publicity regarding spine surgeon's practices or outcomes, whether warranted or not, that cast the sector in a negative light;
- the introduction of new products or product enhancements by us or our competitors;
- changes in the availability of third-party reimbursement in the U.S. or other countries;
- disputes or other developments with respect to intellectual property rights or other potential legal actions;
- our ability to develop, obtain regulatory clearance or approval for, and market new and enhanced products on a timely basis;
- quarterly variations in our or our competitor's results of operations;
- sales of large blocks of our common stock, including sales by our executive officers and directors;
- public campaigns by activist stockholders, such as public proposals and requests for special meetings, potential nominations of candidates for election to our Board of Directors, requests to pursue a strategic combination or other transaction, or other special requests;
- announcements of technological or medical innovations for the treatment of spine pathology;
- changes in governmental regulations or in the status of our regulatory approvals, clearances or applications;
- the acquisition or divestiture of businesses, products, assets or technology by us or by our competitors;
- litigation (including intellectual property litigation) and any associated negative verdicts or ruling;
- announcements of actions by the FDA or other regulatory agencies; and

- changes in earnings or operating margin estimates or financial guidance provided by us or by reports or ratings by securities analysts.

***Anti-takeover provisions in our organizational documents and Delaware law may discourage or prevent a change of control, even if an acquisition would be beneficial to our stockholders, which could affect our stock price adversely and prevent attempts by our stockholders to replace or remove our current management.***

Our certificate of incorporation and bylaws contain provisions that could delay or prevent a change of control of our company or changes in our Board of Directors that our stockholders might consider favorable. Some of these provisions:

- authorize the issuance of preferred stock which can be created and issued by the Board of Directors without prior stockholder approval, with rights senior to those of the common stock;
- provide for a classified Board of Directors, with each director serving a staggered three-year term;
- provide that our stockholders may remove our directors only for cause;
- prohibit our stockholders from filling board vacancies, calling special stockholder meetings, or taking action by written consent;
- prohibit our stockholders from making certain changes to our certificate of incorporation or bylaws except with 66 2/3% stockholder approval; and
- require advance written notice of stockholder proposals and director nominations.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our certificate of incorporation, our bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our Board of Directors or initiate actions that are opposed by our then-current Board of Directors, including delay or impede a merger, tender offer, or proxy contest involving our company. Any delay or prevention of a change of control transaction or changes in our Board of Directors could cause the market price of our common stock to decline.

***We do not intend to pay cash dividends.***

We have never declared or paid cash dividends on our capital stock. We currently do not anticipate paying any cash dividends in the foreseeable future. In addition, the terms of any future debt or credit facility may preclude us from paying any dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders' source of potential gain for the foreseeable future.

**Item 1B.** ***Unresolved Staff Comments***

None.

**Item 2.** ***Properties***

The following table sets forth our principal properties as of December 31, 2022, all of which are leased unless otherwise noted:

| Primary Use | Square Footage | Location |
|---|---|---|
| Corporate office and training facilities | 252,000 | San Diego, CA |
| Manufacturing facilities (1) | 180,000 | West Carrollton, OH |
| Fulfillment and warehouse operations (1) | 100,000 | Memphis, TN |
| Office facilities and warehouse | 47,000 | Japan |
| Office facilities, manufacturing facilities and warehouse operations | 42,000 | Aliso Viejo, CA |
| Corporate office | 28,000 | Broomfield, CO |
| Office facilities and warehouse | 23,000 | Netherlands |
| Office facilities | 21,000 | Columbia, MD |
| Office facilities and warehouse | 16,000 | Australia |
| Office facilities and warehouse | 15,000 | Germany |
| Training facilities | 12,000 | Englewood, NJ |
| Office facilities | 11,000 | Italy |
| Office facilities | 10,000 | Columbia |
| Office facilities | 7,000 | Brazil |
| Office facilities | 7,000 | United Kingdom |
| Office facilities and warehouse | 6,000 | Singapore |
| Office facilities | 6,000 | Spain |

(1) Owned by the Company

**Item 3.** ***Legal Proceedings***

For a description of our material pending legal proceedings, refer to Note 11, Contingencies, in the Notes to Consolidated Financial Statements included in this Annual Report, which is incorporated herein by reference.

**Item 4.** ***Mine Safety Disclosures***

Not applicable.

## PART II

**Item 5.** ***Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities***

**Common Stock Market Information**

Our common stock is traded on the Nasdaq Global Select Market under the symbol "NUVA."

We had approximately 66 stockholders of record as of February 20, 2023. The number of beneficial owners is substantially greater than the number of record holders because a large portion of our common stock is held of record through brokerage firms in "street name."

**Recent Sales of Unregistered Securities**

There were no unregistered sales of equity securities which have not been previously disclosed in a Quarterly Report on Form 10-Q or a Current Report on Form 8-K during the year ended December 31, 2022.

**Dividend Policy**

We have never declared or paid any cash dividends on our capital stock. We currently do not anticipate that we will declare or pay cash dividends on our capital stock in the foreseeable future.

## PERFORMANCE GRAPH

The following graph compares the cumulative total stockholder return data on our common stock with the cumulative return of (i) The Nasdaq Stock Market Composite Index, and (ii) Nasdaq Medical Equipment Index over the five-year period ending December 31, 2022. The graph assumes that $100 was invested on December 31, 2017 in our common stock and in each of the comparative indices, and the reinvestment of any dividends. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

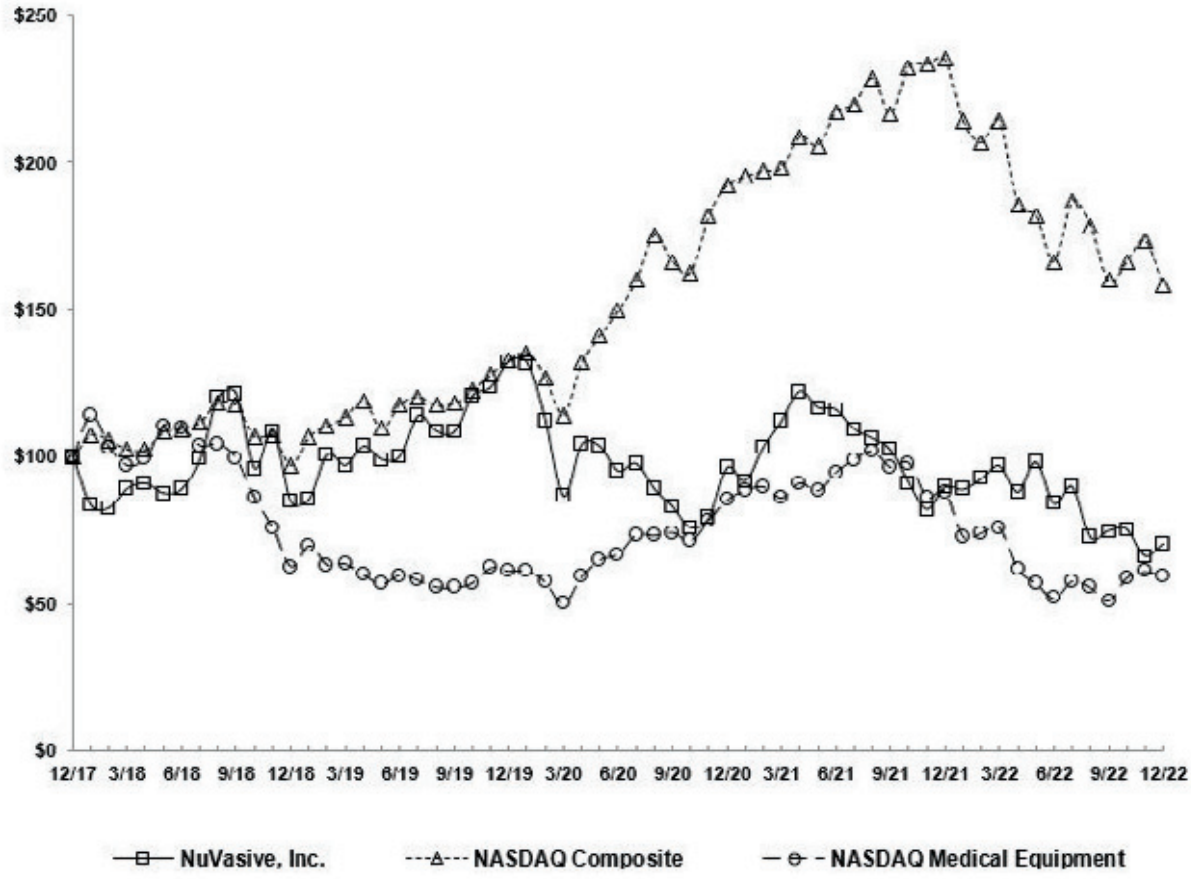
The following graph and related information shall not be deemed "soliciting material" or be deemed to be "filed" with the Commission, nor shall such information be incorporated by reference into any future filing, except to the extent that we specifically incorporate it by reference into such filing.

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

**AMONG NUVASIVE, INC.,**

**THE NASDAQ COMPOSITE INDEX**

**AND THE NASDAQ MEDICAL EQUIPMENT INDEX**




*$100 invested on December 31, 2017 in stock or index, including reinvestment of dividends.

**Purchases of Equity Securities**

In October 2017, we announced that our Board of Directors had approved a share repurchase program authorizing the repurchase of up to $100 million of our common stock over a three-year period. In February 2020, we announced that our Board of Directors approved an increase in the share repurchase authorization from $100 million to $150 million of our common stock and extended the authorization through December 31, 2021. In March 2020, in connection with the issuance of our Convertible Senior Notes due 2025, we repurchased approximately 1,085,000 shares of our common stock for $75 million. On November 3, 2021, our Board of Directors approved an increase in the share repurchase authorization by $25 million and extended the authorization through December 31, 2022. On November 2, 2022, our Board of Directors extended the share repurchase authorization through December 31, 2023. Accordingly, as of November 2, 2022, we are authorized to repurchase up to $100 million of our common stock under the share repurchase program. Under this program, we are authorized to repurchase our shares in open market purchases, privately negotiated purchases or other transactions. We did not repurchase any of our common stock during the year ended December 31, 2022.

**Item 6. [Reserved]**

**Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations***

*As noted earlier, this Annual Report, including the following discussion and analysis, may contain forward-looking statements that involve risks, uncertainties, assumptions and other factors which, if they do not materialize or prove correct, could cause our results to differ from historical results or those expressed or implied by such forward-looking statements. Please review this Annual Report and the following discussion and analysis in light of the forward-looking statements provisions outlined at the outset of Part I.*

*The following Management's Discussion and Analysis of Financial Condition and Results of Operations is intended to promote understanding of our financial condition and results of operations. You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the Consolidated Financial Statements and the Notes to those statements included in this Annual Report. A discussion regarding our financial condition and results of operations for 2022 compared to 2021 is presented under "Results of Operations" further below in this Item 7. For discussion regarding our financial condition and the results of operations for 2021 compared to 2020, refer to Part II, Item 7 Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2021.*

**Overview**

We are a global medical technology company focused on developing, manufacturing, selling and providing procedural solutions for spine surgery, with a guiding purpose to transform surgery, advance care and change lives. We offer a comprehensive portfolio of procedurally integrated spine surgery solutions, including surgical access instruments, spinal implants, fixation systems, biologics, and enabling technologies, as well as systems and services for intraoperative neuromonitoring. In addition, we develop and sell magnetically adjustable implant systems for spine and specialized orthopedic procedures. For the year ended December 31, 2022, we generated net sales of $1.2 billion, including sales in more than 50 countries.

Since our incorporation in 1997, we have grown from a small developer of specialty spinal implants into a leading medical technology company delivering procedurally integrated solutions for spine surgery. A key driver of our growth has been our focus on innovative products and technologies that drive reproducible outcomes for patients, surgeons and providers. In 2003, we introduced the eXtreme Lateral Interbody Fusion procedure, or XLIF, a lateral access spine surgery technique that is less invasive than traditional, open surgical procedures and clinically proven to enable better patient outcomes. Building off the success of XLIF, we have continued to develop innovative less-invasive techniques and technologies for spine surgery, and we have broadened our portfolio of solutions for traditional, open surgical procedures. Our comprehensive portfolio of solutions can be utilized in procedures for the cervical, thoracic and lumbar spine, supporting surgical approaches from the anterior, including lateral, and posterior. Our solutions are used to treat degenerative conditions and for complex spinal surgery, including adult and pediatric deformities, as well as trauma and tumors.

Underlying our procedurally integrated solutions for spine surgery are innovative technologies designed to enable better clinical, financial, and operational outcomes, including:

- our differentiated surgical access instruments, including our integrated split-blade retractor system, designed to enable less-invasive surgical techniques by minimizing soft tissue disruption during spine surgery;

- our Advanced Materials Science portfolio of specialized spinal implants, designed to advance spinal fusion by enhancing the osseointegration and biomechanical properties of implant materials, including porous titanium and porous polyetheretherketone, or PEEK;
- our comprehensive fixation systems, designed to facilitate the preservation and restoration of patient alignment, while addressing a vast array of spinal pathologies from an open or less-invasive approach across all spinal procedures;
- our cervical total disc replacement, or cTDR, technology, which complements our portfolio of products and services for cervical spinal fusion surgery and is designed to offer surgeons best-in-class capabilities across key performance functions—anatomic, physiologic motion, and radiologic design;
- our neuromonitoring systems, which use proprietary software-driven nerve detection and avoidance technology, and our intraoperative neuromonitoring, or IONM, services and support; and
- our Pulse platform, a software ecosystem that integrates multiple hardware technologies into a single, condensed footprint in the operating room, including: radiation reduction, imaging enhancement, rod bending, navigation, IONM, and spinal alignment tools.

In addition, we also design and sell expandable growing rod implant systems for the treatment of early-onset scoliosis that can be non-invasively lengthened following implantation with precise, incremental adjustments via an external remote controller using magnetic technology called MAGnetic External Control, or MAGEC. This technology is also the basis for our Precice line of products, which are designed to support complex orthopedic reconstruction, such as trauma and limb length discrepancy. Precice is an intramedullary device that, once implanted, utilizes the MAGEC technology to non-invasively lengthen the femur and tibia.

We intend to continue development on a wide variety of innovation projects to advance our leadership position in less-invasive spine surgery, increase our product offerings and solutions for traditional spine surgery procedures, and further our enabling technologies portfolio. We expect to continue to invest in the Pulse platform to support our global commercialization plan for the technology and to build-out the platform to enable further improvement of the spine care pathway. Our goal is to use technology and data to make spine surgery more intelligent, and we are investing to develop and expand the Pulse platform to include applications and technologies designed to improve pre-operative treatment selection and planning and post-operative workflow and analytics, as well as intra-operative surgical automation and robotics. In addition, we expect to continue to pursue business and technology acquisition targets and strategic relationships to identify opportunities to broaden our participation along the spine care continuum, as well as opportunities outside of traditional spine. Top priorities include opportunities that complement our technology leadership position in spine, targeted geographic expansion, technology that makes procedures even safer, as well as opportunities which advance our strategy to make spine surgery more intelligent.

**Proposed Merger with Globus Medical**

On February 8, 2023, we entered into an Agreement and Plan of Merger, or the Merger Agreement, with Globus Medical, Inc. and Zebra Merger Sub, Inc., a wholly-owned subsidiary of Globus Medical, or Merger Sub. The Merger Agreement provides, among other things, that subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will merge with and into NuVasive, referred to as the Merger, with NuVasive surviving the Merger as a wholly-owned subsidiary of Globus Medical, such transaction referred to as the Combination.

The closing of the Combination is subject to certain closing conditions, including the approval of both parties' stockholders and the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or the HSR Act. For more information, see Note 12, Subsequent Events, in the Notes to the Consolidated Financial Statements included in this Annual Report.

**Impact of COVID-19 and Global Macroeconomic Conditions on Our Business**

The COVID-19 pandemic significantly impacted our business and results of operations in fiscal years 2020, 2021 and 2022. At the height of the COVID-19 pandemic, governments implemented extraordinary measures to slow the spread of the virus, which included the mandatory closure of businesses, restrictions on travel and gatherings, quarantine and physical distancing requirements, and vaccine mandates. In addition, many government agencies in conjunction with hospitals and healthcare systems deferred, reduced, or suspended elective surgical procedures due to COVID-19. While certain spine surgeries are deemed essential and certain surgeries, like in cases of trauma, cannot be delayed, we experienced a significant reduction in procedural volumes as hospital systems and/or patients deferred spine surgery procedures.

Additionally, the COVID-19 pandemic and general macroeconomic conditions have led to disruptions in the global supply chain. While we have largely been able to mitigate the impact, we have experienced challenges associated with material and component availability for certain product lines, longer shipping and delivery times for raw materials and components, constrained logistics capacity related to the movement of our products, availability of skilled labor and increased costs of raw materials, components, labor, and freight and courier services. Our net sales and profitability from our foreign operations have also been negatively affected by the unfavorable foreign currency exchange impact of the strengthened U.S. dollar against a number of currencies.

Despite the impact COVID-19 has had on our business, we continued to invest in research and development, invest in our people, improve operating processes, and take steps to position ourselves for long-term success. During 2020, we raised additional capital to solidify our financial foundation. Nothwithstanding COVID-19, we continued to train and educate surgeons on our products and less-invasive surgical techniques through live and virtual settings. Further, we remained focused on developing innovative solutions and enabling technologies to drive increased adoption of less-invasive surgery, including the commercialization of the Simplify Cervical Disc for cTDR procedures and the Pulse platform in 2021. While many countries have removed or reduced the restrictions initially implemented in response to COVID-19, the pandemic continues to evolve, and its impact on our business will depend on several factors that are highly uncertain and unpredictable, including, the efficacy and adoption of vaccines and treatments, future resurgences of the virus and its variants, the imposition of government lockdowns, quarantine and physical distancing requirements, patient capacity at hospitals and healthcare systems, the duration and severity of healthcare worker shortages, and the willingness and ability of patients to seek care and treatment due to safety concerns or financial hardship. Additionally, due to the significant uncertainty that exists relative to the duration and overall impact of the macroeconomic factors discussed above, our future operating results may be negatively impacted. Further discussion of the potential impacts on our business from the COVID-19 pandemic and global macroeconomic conditions is provided under Part I, Item 1A – Risk Factors.

*Net Sales and Operations*

The majority of our net sales are derived from the sale of implants and fixation products, biologics, disposables and IONM services, and we expect this trend to continue for the foreseeable future. Our implants and fixation products, biologics, and disposables are currently sold and shipped from our distribution and warehousing operations. We generally recognize net sales from implants and fixation products, biologics and disposables upon notice that our products have been used in a surgical procedure or upon shipment to a third-party customer who has assumed control of the products. Net sales from IONM services are recognized in the period the service is performed for the amount of payment we expect to receive. We make available surgical instrument sets and neuromonitoring systems to hospitals to facilitate surgeon access to the spine to perform restorative and fusion procedures using our implants and fixation products. We sell surgical instrument sets and our proprietary software-driven neuromonitoring systems, however this does not make up a material part of our business. While selling or leasing of capital equipment has not historically made up a material portion of our total net sales, selling and leasing of capital equipment is expected to increase over time as a result of our commercialization of the Pulse platform in 2021.

A substantial portion of our operations are located in the U.S., and the majority of our net sales and cash generation have been made in the U.S. We sell our products in the U.S. through a sales force comprised primarily of directly employed and independent sales representatives. Our sales force provides a delivery and consultative service to surgeon and hospital customers and is compensated based on sales and product placements in their territories. Sales force commissions are reflected in the selling, general and administrative operating expense line item within our Consolidated Statements of Operations. We continue to invest in international expansion with a focus on European, Asia-Pacific and Latin American markets. Our international sales force is comprised of directly-employed sales personnel, independent sales representatives, as well as exclusive and non-exclusive independent third-party distributors.

**Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon our audited Consolidated Financial Statements and accompanying notes, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, net sales and expenses.

*Estimates and Assumptions*

We make certain estimates and assumptions based on historical experience and various other assumptions that we believe to be reasonable when preparing these financial statements, as further discussed below. These estimates and assumptions involve judgments with respect to numerous factors that are difficult to predict. As a result, actual amounts could be materially different from these estimates.

The following accounting policies are critical to the judgments and estimates used in the preparation of our Consolidated Financial Statements.

*Revenue Recognition*

We recognize revenue upon the transfer of goods or services to a customer at an amount that reflects the expected consideration to be received in exchange for those goods or services. Specifically, revenue from the sale of implants, fixation products and disposables is generally recognized at an amount that reflects the expected consideration upon notice that our products have been used in a surgical procedure or upon shipment to a third-party customer assuming control of the products. Revenue from IONM services is recognized in the period the service is performed for the amount of consideration expected to be received. Revenue from the sale of surgical instrument sets is generally recognized upon receipt of a purchase order and the subsequent shipment to a customer who assumes control. In certain cases, we offer the ability for customers to lease surgical instrumentation primarily on a non-sales type basis. Revenue from the sale or lease of capital equipment is recognized when we transfer control to the customer, which is generally at the point when acceptance occurs that indicates customer acknowledgment of delivery or installation, depending on the terms of the arrangement. Revenue associated with products holding rights of return or trade-in are recognized when we conclude there is not a risk of significant revenue reversal in future periods for the expected consideration in the transaction. Our costs incurred associated with sales contracts with customers are deferred over the performance obligation period and recognized in the same period as the related revenue, with the exception of contracts that complete within one year or less, in which case the associated costs are expensed as incurred.

*Allowance for Credit Losses and Sales Return and Pricing Reserves*

We maintain an allowance for credit losses resulting from the inability of our customers, including hospitals, ambulatory surgery centers, and distributors, to make required payments. The allowance for credit losses is calculated quarterly and is estimated on a region-by-region basis considering a number of factors including age of account balances, collection history, historical account write-offs, third-party credit reports, identified trends, current economic conditions, and supportable forecasted economic expectations. The allowance is adjusted on a specific identification basis for certain accounts as well as pooling of accounts with similar characteristics. An increase in the provision for credit losses may be required when the financial condition of our customers or their collection experience deteriorates.

Our exposure to credit losses may increase if our customers are adversely affected by changes in healthcare laws, coverage and reimbursement, macroeconomic pressures or uncertainty associated with local or global economic recessions, disruption associated with the COVID-19 pandemic, or other customer-specific factors. It is possible that there could be a material adverse impact from potential adjustments of the carrying amount of trade receivables as customers' cash flows are impacted by their response to the COVID-19 pandemic and the deferral of elective surgical procedures and other macroeconomic challenges.

In addition, we establish a liability for estimated sales returns and a reserve for price adjustments that are recorded as a reduction to net sales. The liability and reserve are maintained to account for future product returns and price adjustments of products sold in the current period. This reserve is reviewed quarterly and is estimated based on an analysis of our historical experience and expected future trends.

*Inventory, net*

Finished goods primarily consists of specialized implants, fixation products and disposables and are stated at the lower of cost or net realizable value determined by utilizing a standard cost method, which includes capitalized variances, which approximates the weighted average cost. Work in progress and raw materials represent the underlying material, and labor for work in progress, that ultimately yield finished goods upon completion and are subject to lower of cost or net realizable value. We review the components of inventory on a periodic basis for excess and obsolescence and adjust inventory to its net realizable value as necessary.

We record an inventory reserve for estimated excess and obsolete inventory based upon historical turnover and assumptions about future demand for our products and market conditions, such as product life cycles, revenue forecasts and timing of the introduction and development of new or enhanced products. Our allograft products have shelf lives ranging from two to five years and are subject to demand fluctuations based on the availability and demand for alternative products. Our inventory, which consists primarily of disposables, specialized implants and fixation products, is at risk of obsolescence following the introduction and development of new or enhanced products.

One of our strategic objectives is to continue to rapidly develop and commercialize new products and product enhancements which increases the risk that existing products will become obsolete prior to the end of their anticipated useful life. Our estimates and assumptions for excess and obsolete inventory are reviewed and updated on a quarterly basis. The estimates we use for demand are also used for near-term capacity planning and inventory purchasing and are consistent with our net sales forecasts.

*Fair Value of Financial Instruments*

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The valuation of assets and liabilities subject to fair value measurements utilizes a three tiered approach and fair value measurement be classified and disclosed in one of the following three categories. Inputs to valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect our market assumptions.

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available and may be derived with internally developed methodologies.

The carrying value of financial instruments measured and classified within Level 1 are based on quoted prices.

The types of instruments that trade in markets that are not considered to be active, but are valued based on quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency are generally classified within Level 2 of the fair value hierarchy.

Certain contingent consideration liabilities are classified within Level 3 of the fair value hierarchy because their fair value is determined using unobservable inputs. We estimate the fair value of those liabilities using a discounted cash flow model, probability model, or Monte Carlo simulation model. The significant unobservable inputs of such models include projected financial results, volatility rates, probability factors associated with the achievement of defined milestones, and discount rates.

The most significant portion of our contingent consideration liabilities as of December 31, 2022 and December 31, 2021, resulted from the acquisition of Simplify Medical Pty Limited, or Simplify Medical, during the first quarter of 2021. In connection with the purchase price allocation for the acquisition, we recorded a fair value estimate of $103.4 million for contingent consideration liabilities related to the achievement of milestones associated with the regulatory approval from the U.S. Food and Drug Administration, or FDA, for two-level cervical total disc replacement, and net sales from products incorporating the Simplify Medical cervical disc technology. Our estimated contingent consideration liability for Simplify Medical as of December 31, 2022 is $96.3 million.

We estimated the fair value of the contingent liability related to the FDA regulatory approval milestone using a probability-weighted discounted cash flow model. This fair value measurement was based on significant inputs not observable in the market, with key assumptions including our estimation of the probability of FDA approval, the timing of approval, and the discount rate applied. Significant changes to these assumptions could have resulted in a higher or lower fair value prior to achievement of this milestone. In April 2021, the Simplify Cervical Disc received approval from the FDA for two-level cervical total disc replacement, resulting in the achievement of the regulatory milestone and payment by us of $45.8 million.

We estimate the fair value of the remaining contingent liabilities related to the net sales milestones using a Monte Carlo simulation model. This fair value measurement is based on significant inputs that are both observable and unobservable in the market, with key assumptions including the forecasted net sales from products incorporating the Simplify Medical cervical disc technology, volatility factors associated with those forecasted net sales, and discount rates. Significant changes in these assumptions could result in a significantly higher or lower fair value estimate. Evaluating this contingent consideration liability as of December 31, 2022 holding other inputs constant, an increase or decrease in our 2023 and 2024 forecasted net sales by 5% would have resulted in an increase or decrease in the fair value by $4 million. See further discussion in Note 3, Business Combinations, and Note 4, Financial Instruments and Fair Value Measurements, in the Notes to Consolidated Financial Statements included in this Annual Report.

*Valuation of Goodwill and Intangible Assets with Indefinite Lives*

Our goodwill represents the excess of the cost over the fair value of net assets acquired from our business combinations. The determination of the value of goodwill and intangible assets arising from business combinations and asset acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair value of the net tangible and intangible assets acquired, including capitalized in-process research and development, or IPR&D. Intangible assets acquired in a business combination that are used for IPR&D activities are considered indefinite lived until the completion or abandonment of the associated research and development efforts. Upon commercialization of the relevant research and development project, we will amortize the acquired in-process research and development over its estimated useful life or expense the acquired in-process research and development should the research and development project be unsuccessful with no future alternative use.

Goodwill and IPR&D are not amortized; however, they are assessed for impairment using fair value measurement techniques on an annual basis or more frequently if facts and circumstance warrant such a review. The goodwill or IPR&D are considered to be impaired if we determine that the carrying value of the reporting unit or IPR&D exceeds its respective fair value.

We perform our goodwill impairment analysis at the reporting unit level, which aligns with our reporting structure and availability of discrete financial information. We perform our annual impairment analysis by either comparing a reporting unit's estimated fair value to its carrying amount or doing a qualitative assessment of a reporting unit's fair value from the last quantitative assessment to determine if there is potential impairment. We may do a qualitative assessment when the results of the previous quantitative test indicated the reporting unit's estimated fair value was significantly in excess of the carrying value of its net assets and we do not believe there have been significant changes in the reporting unit's operations that would significantly decrease its estimated fair value or significantly increase its net assets. If a quantitative assessment is performed the evaluation includes management estimates of cash flow projections based on internal future projections and/or use of a market approach by looking at market values of comparable companies. Key assumptions for these projections include net sales growth, future gross and operating margin growth, and its weighted cost of capital and terminal growth rates. The net sales and margin growth is based on increased sales of new and existing products as we maintain our investment in research and development. Additional assumed value creators may include increased efficiencies from capital spending. The resulting cash flows are discounted using a weighted average cost of capital. Operating mechanisms and requirements to ensure that growth and efficiency assumptions will ultimately be realized are also considered in the evaluation, including timing and probability of regulatory approvals for our products to be commercialized. Our market capitalization is also considered as a part of this analysis.

Our annual evaluation for impairment of goodwill consists of one reporting unit. In accordance with our policy, we completed our most recent annual evaluation for impairment as of October 1, 2022 using the qualitative assessment. This qualitative analysis considered macroeconomic conditions and other relevant factors specific to the reporting unit, including market considerations, cost factors, historical and forecasted financial performance, and relevant entity-specific considerations. As part of our qualitative assessment, we also reviewed certain quantitative factors to assess the likelihood of an impairment. In addition, no indicators of impairment were noted through December 31, 2022 and consequently, no impairment charge was recorded during the year.

*Valuation of Intangible Assets*

Our intangible assets are comprised primarily of purchased technology, customer relationships, manufacturing know-how and trade secrets, and trade name and trademarks. We make significant judgments in relation to the valuation of intangible assets resulting from business combinations and asset acquisitions.

Intangible assets are generally amortized on a straight-line basis over their estimated useful lives of 2 to 17 years. We base the useful lives and related amortization expense on the period of time we estimate the assets will generate net sales or otherwise be used. We also periodically review the lives assigned to our intangible assets to ensure that our initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

We evaluate our intangible assets with finite lives for indications of impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of our use of the acquired assets or the strategy for our overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, we make an assessment of the recoverability of the net carrying value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the technology over the remaining amortization period, we reduce the net carrying value of the related intangible asset to fair value and may adjust the remaining amortization period.

Significant judgment is required in the forecasts of future operating results that are used in the discounted cash flow valuation models. It is possible that plans may change and estimates used may prove to be inaccurate. If our actual results, or the plans and estimates used in future impairment analyses, are lower than the original estimates used to assess the recoverability of these assets, we could incur additional impairment charges.

*Valuation of Stock-Based Compensation*

Stock-based compensation expense for equity-classified awards, principally related to restricted stock units, or RSUs, and performance restricted stock units, or PRSUs, is measured at the grant date based on the estimated fair value of the award. The fair value of equity instruments that are expected to vest is recognized and amortized over the requisite service period. We have granted awards with up to five year graded or cliff vesting terms (in each case, with service through the date of vesting being required). No exercise price or other monetary payment is required for receipt of the shares issued in settlement of the respective award; instead, consideration is furnished in the form of the participant's service.

The fair value of RSUs including PRSUs with pre-defined performance criteria is based on the stock price on the date of grant whereas the expense for PRSUs with pre-defined performance criteria is adjusted with the probability of achievement of such performance criteria at each period end.

Stock-based compensation expense is adjusted from the grant date to exclude expense for awards that are expected to be forfeited. The forfeiture estimate is adjusted as necessary through the vesting date so that full compensation cost is recognized only for awards that vest. We assess the reasonableness of the estimated forfeiture rate at least annually, with any change to be made on a cumulative basis in the period the estimated forfeiture rates change. We considered our historical experience of pre-vesting forfeitures on awards by each homogenous group of employees as the basis to arrive at our estimated annual pre-vesting forfeiture rates.

We estimate the fair value of stock options issued under our equity incentive plans and shares issued to employees under our employee stock purchase plan, or ESPP, using a Black-Scholes option-pricing model on the date of grant. The Black-Scholes option-pricing model incorporates various assumptions including expected volatility, expected term and risk-free interest rates. The expected volatility is based on the historical volatility of our common stock over the most recent period commensurate with the estimated expected term of our stock options and ESPP offering period which is derived from historical experience. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield in effect at the time of grant. We have never declared or paid dividends and have no plans to do so in the foreseeable future.

*Accounting for Income Taxes*

The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Tax law and rate changes are reflected in income in the period such changes are enacted. We include interest and penalties related to income taxes, including unrecognized tax benefits, within income tax expense.

Our income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. While we believe we have appropriate support for the positions taken on our tax returns, we regularly assess the potential outcomes of examinations by tax authorities in determining the adequacy of our provision for income taxes. We continually assess the likelihood and amount of potential revisions and adjust the income tax provision, income taxes payable and deferred taxes in the period in which the facts that give rise to a revision become known.

Significant judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and the valuation allowance recorded against our net deferred tax assets. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets are expected to be realized. A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available positive and negative evidence. Factors reviewed include projections of pre-tax book income for the foreseeable future, determination of cumulative pre-tax book income after permanent differences, earnings history, and reliability of forecasting.

*Legal Proceedings*

We are involved in a number of legal actions and investigations arising out of the normal course of our business. The outcomes of these legal actions and investigations are not within our complete control and may not be known for prolonged periods of time. In some actions, the claimants seek damages as well as other relief, including injunctions barring the sale of products that are the subject of the lawsuit, that could require significant expenditures or result in lost net sales. In accordance with authoritative guidance, we disclose information regarding each claim where the likelihood of a material loss contingency is probable or reasonably possible. An estimated loss contingency is accrued in our financial statements if it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. If a loss is reasonably possible and can be reasonably estimated, the estimated loss or range of loss is disclosed in the Notes to Consolidated Financial Statements. In most cases, significant judgment is required to estimate the amount and timing of a loss to be recorded. Our significant legal proceedings and investigations are discussed in Note 11, Contingencies, in the Notes to Consolidated Financial Statements included in this Annual Report.

The above discussion is not intended to be a comprehensive list of all of our accounting policies and estimates. In many cases, the accounting treatment of a particular transaction is specifically dictated by U.S. GAAP. See our Consolidated Financial Statements and Notes thereto included in this Annual Report, which contain accounting policies and other disclosures required by U.S. GAAP.

**Results of Operations**

***Net Sales***

| | Year Ended December 31, | | 2021 to 2022 | |
|---|---|---|---|---|
| *(in thousands, except %)* | 2022 | 2021 | $ Change | % Change |
| Spinal hardware | $ 909,778 | $ 856,556 | $ 53,222 | 6 % |
| Surgical support | 292,164 | 282,432 | 9,732 | 3 % |
| Total net sales | $ 1,201,942 | $ 1,138,988 | $ 62,954 | 6 % |

Our spinal hardware product line offerings include our implants and fixation products. Our surgical support product line offerings include IONM services and disposables, biologics, and our capital equipment, all of which are used to aid spine surgery.

We expect continued adoption of our innovative less-invasive procedures and deeper penetration into existing accounts and international markets as our sales force executes on our strategy of selling the full mix of our products and services. However, the continued consolidation and increased purchasing power of our hospital customers and group purchasing organizations, continued changes in the public and private insurance markets regarding reimbursement, and ongoing policy and legislative changes in the U.S. have created less predictability. Although the market for procedurally-integrated spine surgery solutions is expected to continue to grow over the long term, economic, political and regulatory influences are subjecting our industry to significant changes that may slow the growth rate of the spine surgery market. Additionally, the COVID-19 pandemic has had, and may continue to have, an adverse effect on our business. While procedural volume rates for elective surgeries did recover in the U.S. and certain international regions during 2022, the COVID-19 pandemic continues to evolve and its impact on our business will depend on several factors that are highly uncertain and unpredictable.

Total net sales increased $63.0 million, or 6%, in 2022 compared to 2021.

Net sales from our spinal hardware product line offerings increased $53.2 million, or 6%, in 2022 compared to 2021. Product volume within spinal hardware increased our net sales by approximately 11% in 2022 compared to 2021, primarily due to net sales growth from the commercial launch of the Simplify Cervical Disc in 2021, as well as higher procedural volumes as the number of elective surgeries continued to increase in 2022. We experienced unfavorable pricing impacts of approximately 1% in 2022 compared to 2021. Foreign currency fluctuations decreased our spinal hardware net sales by approximately 4% in 2022 compared to 2021.

Net sales from our surgical support product line offerings increased $9.7 million, or 3%, in 2022 compared to 2021. Product and service volume within surgical support increased our net sales by approximately 5% in 2022 compared to 2021, primarily due to net sales growth from the commercial launch of the Pulse platform during the third quarter of 2021, as well as higher IONM services and surgical procedural volumes as the number of elective surgeries continued to increase. We experienced unfavorable pricing impacts of approximately 1% in 2022 compared to 2021. Foreign currency fluctuations decreased our surgical support net sales by approximately 1% in 2022 compared to 2021.

***Cost of Sales, Excluding Below Amortization of Intangible Assets***

| | Year Ended December 31, | | 2021 to 2022 | |
|---|---|---|---|---|
| *(in thousands, except %)* | 2022 | 2021 | $ Change | % Change |
| Cost of sales | $ 336,507 | $ 322,278 | $ 14,229 | 4 % |
| % of total net sales | 28 % | 28 % | | — % |

Cost of sales consists primarily of purchased goods, raw materials, labor and overhead associated with product manufacturing, inventory-related costs and royalty expenses, as well as the cost of providing IONM services, which includes personnel and physician oversight costs. We primarily procure and manufacture our products in the U.S., and accordingly, foreign currency fluctuations have not materially impacted our cost of sales.

Cost of sales increased $14.2 million in 2022 compared to 2021. Cost of sales as a percentage of net sales was 28% for both years 2022 and 2021. The increase in cost of sales in 2022 is primarily associated with higher net sales, compared to the same period in 2021. Offsetting this increase is a decrease of $25.0 million in the amount of our excess and obsolete inventory reserves recorded to cost of sales as compared to 2021. In 2022, our excess and obsolete inventory reserves decreased by $10.8 million compared to 2021, due to updates to our estimates and assumptions about future product demand for certain spinal hardware products which have been affected by multiple factors, including the COVID-19 pandemic and general market conditions. Further, in 2022, our excess and obsolete inventory reserves decreased by $14.2 million, compared to 2021, due to a reserve recorded in the third quarter of 2021 associated with the withdrawal of certain products from the market that did not recur.

***Operating Expenses***

| *(in thousands, except %)* | Year Ended December 31, 2022 | 2021 | 2021 to 2022 $ Change | % Change |
|---|---|---|---|---|
| Selling, general and administrative | $ 634,095 | $ 610,085 | $ 24,010 | 4 % |
| % of total net sales | 53 % | 54 % | | |
| Research and development | 98,524 | 92,626 | 5,898 | 6 % |
| % of total net sales | 8 % | 8 % | | |
| Amortization of intangibles | 49,376 | 57,309 | (7,933) | (14)% |
| Business transition (benefit) costs | (4,976) | 68,719 | (73,695) | (107)% |

*Selling, General and Administrative*

Selling, general and administrative expenses consist primarily of compensation costs, commissions and training costs for our employees engaged in sales, marketing and customer support functions. The expense also includes commissions to sales representatives, freight expenses, surgeon training costs, depreciation expense for property and equipment such as surgical instrument sets, and administrative expenses for both employees and third-party service providers.

Selling, general and administrative expenses increased by $24.0 million, or 4%, in 2022 compared to 2021. The increase in 2022 is primarily due to increased commissions and freight costs associated with higher net sales, increased travel expenses coinciding with the easing of COVID-19 related restrictions, increased legal expenses associated with certain ongoing litigation matters and increased depreciation costs for surgical sets supporting higher net sales. During 2022, we experienced macroeconomic inflationary pressures within our selling, general and administrative expenses, including higher travel expenses and freight costs.

*Research and Development*

Research and development expense consists primarily of product research and development, clinical trial and study costs, regulatory and clinical functions, and compensation and other employee related expenses. In the last several years, we have introduced numerous new products and product enhancements that have significantly expanded our technology platforms and our comprehensive product portfolio. We have also acquired complementary and strategic assets and technology, particularly in the area of spinal hardware products. We continue to invest in research and development programs related to our core product portfolio, as well as in our capital equipment.

Research and development expense increased by $5.9 million, or 6%, in 2022 compared to 2021. The increase in spending is primarily due to higher headcount related costs, and further development, enhancement and functionality of our current and future product offerings, including capital equipment, which was partially offset by lower consulting expenses. Over the course of the COVID-19 pandemic, we have stayed committed to our investment in research and development in order to further advance our leadership position in spine surgery and our enabling technologies portfolio.

*Amortization of Intangible Assets*

Amortization of intangible assets relates to the amortization of finite-lived intangible assets acquired. Amortization expense decreased by $7.9 million, or (14)% in 2022 compared to 2021 primarily due to multiple intangible assets associated with a number of historical acquisitions becoming fully amortized during 2022.

*Business Transition (Benefit) Costs*

We incur certain costs related to acquisition, integration and business transition activities, which include severance, relocation, consulting, leasehold exit costs, third-party merger and acquisition costs, contingent consideration fair value adjustments and other costs directly associated with such activities. Contingent consideration is accrued based on the fair value of the expected payment, and such accruals are subject to increase or decrease based on assessment of the likelihood and amount of contingent consideration achievement resulting in payment. If an accrual for contingent consideration decreases during a particular period, it results in a reduction of costs during such period, which we record as a benefit.

During the year ended December 31, 2022, we recorded a benefit of $(5.0) million related to acquisition, integration and business transition activities, which included $(14.7) million of fair value adjustments on contingent consideration liabilities associated with our 2021, 2018, 2017 and 2016 acquisitions.

During the year ended December 31, 2021, we recorded $68.7 million of costs related to acquisition, integration and business transition activities, which included $53.4 million of fair value adjustments on contingent consideration liabilities associated with our 2021, 2018, 2017 and 2016 acquisitions as well as $4.0 million of costs associated with the 2021 acquisition of Simplify Medical.

See further discussion in Note 3, Business Combinations, and Note 4, Financial Instruments and Fair Value Measurements, in the Notes to Consolidated Financial Statements included in this Annual Report.

***Interest and Other Expense, Net***

| | Year Ended December 31, | | 2021 to 2022 | |
|---|---|---|---|---|
| *(in thousands, except %)* | 2022 | 2021 | $ Change | % Change |
| Interest income | $ 2,759 | $ 160 | $ 2,599 | 1,624 % |
| Interest expense | (17,423) | (21,056) | 3,633 | (17)% |
| Other expense, net | (21,430) | (25,459) | 4,029 | (16)% |
| Total interest and other expense, net | $ (36,094) | $ (46,355) | $ 10,261 | (22)% |
| % of total net sales | 3 % | 4 % | | |

Total interest and other expense, net for the periods presented includes gains and losses from strategic investments, gains and losses from changes in the fair value of derivatives, and net foreign currency exchange gains and losses.

Total interest and other expense, net decreased by $10.3 million, or 22%, in 2022 compared to 2021. Interest income increased by $2.6 million in 2022, compared to the same period 2021, primarily due to interest earned on our money market funds as a result of higher interest rates in 2022, compared to the same period in 2021. Interest expense decreased by $3.6 million in 2022, compared to the same period in 2021, primarily due to the Senior Convertible Notes due 2021 which were settled at maturity in March 2021. Other expense, net decreased by $4.0 million in 2022, compared to the same period in 2021, due primarily to a decrease of $9.8 million in net foreign currency exchange losses and a change of $5.9 million in unrealized gains and losses from strategic investments. Net foreign currency exchange losses were $18.8 million and $28.7 million for the years ended December 31, 2022 and December 31, 2021, respectively. Unrealized (losses) gains from strategic investments were $(2.8) million and $3.1 million for the years ended December 31, 2022 and December 31, 2021, respectively.

***Income Tax Expense***

| | Year Ended December 31, | | 2021 to 2022 | |
|---|---|---|---|---|
| *(in thousands, except %)* | 2022 | 2021 | $ Change | % Change |
| Income tax expense | $ (11,915) | $ (5,702) | $ (6,213) | 109 % |
| Effective income tax rate | 23 % | (10)% | | |

The provision for income tax expense as a percentage of pre-tax income was 23% for the year ended December 31, 2022 compared with (10)% on pre-tax losses for the year ended December 31, 2021. The increase in income tax expense during 2022 was primarily due to increased uncertain tax position reserves, shortfall on share-based compensation, partially offset by decreased valuation allowances, favorable return to provision adjustments, and decreased contingent consideration liabilities.

We are subject to audits by federal, state, local, and foreign tax authorities. We believe that adequate provisions have been made for any adjustments that may result from tax examinations. However, the outcome of tax audits cannot be predicted with certainty. Should any issues addressed in our tax audits be resolved in a manner not consistent with our expectations, we could be required to adjust our provision for income taxes in the period such resolution occurs.

We continue to streamline our international operations, including procurement, logistics and customer service functions, in an effort to improve overall operational efficiencies. U.S. tax reform has lessened the tax benefit associated with foreign earnings due to a reduced federal corporate tax rate and the forced U.S. inclusion of certain foreign intangible related earnings. As international tax rules and regulations change, we may be subjected to higher taxes on foreign earnings.

## Liquidity, Cash Flows and Capital Resources

### *Liquidity and Capital Resources*

Our principal sources of liquidity are our existing cash and cash equivalents, cash generated from operations, proceeds from our convertible notes issuances, and access to our revolving line of credit. We expect that cash provided by operating activities may fluctuate in future periods as a result of a number of factors, including fluctuations in our operating results, which include impacts from the COVID-19 pandemic, working capital requirements and capital deployment decisions. We have historically invested our cash primarily in U.S. treasuries and government agencies, corporate debt, and money market funds. Certain of these investments are subject to general credit, liquidity and other market risks. The general condition of the financial markets and the economy may increase those risks and may affect the value and liquidity of investments and restrict our ability to access the capital markets. Additionally, the COVID-19 pandemic and general macroeconomic conditions have led to disruptions in the global supply chain. While we have largely been able to mitigate the impact, we have experienced challenges associated with material and component availability for certain product lines, longer shipping and delivery times for raw materials and components, constrained logistics capacity related to the movement of our products, availability of skilled labor and increased costs of raw materials, components, labor, and freight and courier services.

Our future capital requirements will depend on many factors including our growth rate in net sales, the timing and extent of spending to support development efforts, the expansion of selling, general and administrative activities, the timing of introductions of new products and enhancements to existing products, successful insourcing of our manufacturing process, the continuing market acceptance of our products, the expenditures associated with possible future acquisitions or other business combination transactions, the outcome of current and future litigation, international expansions of our business, and impacts from the COVID-19 pandemic and global macroeconomic factors. We expect our cash flows from operations to continue to fund the ongoing core business. As borrowings become due, we may be required to access the capital markets or draw upon our line of credit for additional funding. As we assess inorganic growth strategies, we may need to supplement our internally generated cash flow with outside sources. As part of our liquidity strategy, we will continue to monitor our current level of earnings and cash flow generation as well as our ability to secure additional credit facilities, term loans, or other similar arrangements and access the capital markets in light of those earning levels and general financial market conditions.

A substantial portion of our operations are located in the U.S., and the majority of our net sales and cash generation have been made in the U.S. However, as our business in markets outside of the U.S. continues to increase, our exposure to foreign currency exchange risk related to our foreign operations will increase. Fluctuations in the rate of exchange between the U.S. dollar and foreign currencies, primarily the Australian dollar, the Brazilian real, the British pound sterling, the Colombian peso, the euro, the Japanese yen and the Singapore dollar, has and could continue to adversely affect our financial results, including our net sales, growth rates in net sales, gross margins, gains and losses as well as assets and liabilities. In particular, as a result of our acquisition of Simplify Medical, we have additional exposure to fluctuations in the Australian dollar. We established intercompany receivables and payables in Australian dollars in connection with the acquisition of Simplify Medical, a proprietary limited company registered in Australia. Additionally, we have future contingent consideration liabilities denominated in U.S. dollars, in connection with the acquisition of Simplify Medical, which are the financial obligation of NuVasive (AUST/NZ) Pty Limited, an Australian dollar denominated company. Both the intercompany receivables and payables and contingent consideration liabilities are subject to foreign currency remeasurement. While we enter into forward currency contracts for certain currencies to partially offset the impact from fluctuations of the foreign currency rates on our third-party and short-term intercompany receivables and payables between our domestic and international operations, we have not entered into hedges with respect to the Australian dollar. In addition, we currently do not hedge future forecasted transactions but will continue to assess whether that strategy is appropriate. As of December 31, 2022, the cash balance held by our foreign subsidiaries with currencies other than the U.S. dollar was approximately $51.2 million and it is our intention to indefinitely reinvest all of our current foreign earnings to increase working capital within our international business and to expand our existing operations outside the U.S. As of December 31, 2022, our account receivable balance held by our foreign subsidiaries with currencies other than the U.S. dollar was approximately $61.9 million. We have operations in markets in which there is governmental financial instability which could impact funds that flow into the medical reimbursement system. In addition, loss of financial stability within these markets could lead to delays in reimbursement or inability to remit payment due to currency controls. Specifically, we have operations and/or sales in Puerto Rico, Brazil and Argentina. We do not have any material financial exposure to one customer or one country that would significantly hinder our liquidity.

Under the terms of the Merger Agreement with Globus Medical, we have agreed to various covenants and agreements, including, among others, agreements to use commercially reasonable efforts to conduct our business in the ordinary course during the period between the execution of the Merger Agreement and the closing of the Combination. Subject to certain exceptions, we may not take, commit or agree to take certain actions without Globus Medical's consent, including, but not limited to, making material acquisitions, disposing of material assets, making capital expenditures in excess of specified amounts, issuing additional capital stock or other equity securities, or incurring additional indebtedness (subject to certain exceptions). We do not believe these restrictions will prevent us from meeting our ongoing operating expenses, working capital needs or capital expenditure requirements.

We are currently, and in the future could be, involved in legal actions and investigations arising out of the normal course of our business. Due to the inherent uncertainties associated with pending legal actions and investigations, we cannot predict the outcome, and, with respect to certain pending litigation or claims where no liability has been accrued, to make a meaningful estimate of the reasonably possible loss or range of loss that could result from an unfavorable outcome, other than those matters disclosed in this Annual Report. We have no material accruals for pending litigation or claims that are not disclosed in our Consolidated Financial Statements. It is reasonably possible, however, that an unfavorable outcome that exceeds our accrual estimate for a particular legal proceeding or investigation could have a material adverse effect on our liquidity and access to capital resources. Additionally, it is possible that in connection with a legal proceeding or investigation we are required to pay fees and expenses of the other party or set aside funds in an escrow or purchase a performance bond, regardless of our assessment of the probability of a loss. These requirements to pay fees and expenses or escrow funding in connection with a legal proceeding or investigation could have an adverse impact on our liquidity or affect our access to additional capital resources. We have disclosed all material accruals for pending litigation or investigations in Note 11, Contingencies, in the Notes to Consolidated Financial Statements included in this Annual Report.

On September 12, 2016, we completed an acquisition of an imaging software and technology platform known as Lessray. In connection with the acquisition, we recorded a purchase accounting fair value estimate of $34.1 million for contingent consideration liabilities related to the achievement of certain regulatory and commercial milestones. In January 2018, we paid $9.0 million of the outstanding contingent consideration liabilities for the achievement of a commercial milestone. In July 2018, we paid $10.0 million of the outstanding contingent consideration liabilities for the achievement of a regulatory approval milestone. We anticipate the remaining sales-based milestones will become payable by 2024 but this date is subject to change based on the achievement of those commercial milestones.

On September 7, 2017, we completed an acquisition of a medical device company that developed interbody implants for spinal fusion using patented porous PEEK technology. In connection with the acquisition, we recorded a purchase accounting fair value estimate of $31.4 million for contingent consideration liabilities related to the achievement of certain manufacturing and commercial milestones. In May 2020, we paid $7.5 million toward the successful achievement of a milestone. In March 2022, we paid $7.5 million toward the successful achievement of a second milestone. There are two remaining milestones, and we anticipate the next milestone will become payable in 2023 with the final milestone anticipated no earlier than 2027. These dates are subject to change based on the achievement of those manufacturing and commercial milestones.

On February 24, 2021, we completed the acquisition of Simplify Medical, a developer of cervical disc technology for cTDR procedures. In connection with the acquisition, we recorded a purchase accounting fair value estimate of $103.4 million for contingent consideration liabilities related to the achievement of milestones related to regulatory approval and net sales from products incorporating the Simplify Medical cervical disc technology. On April 1, 2021, the Simplify Cervical Disc received approval from the FDA for two-level cervical total disc replacement, resulting in the achievement of the regulatory milestone. We made a payment of $45.8 million on April 20, 2021 for the regulatory milestone using available cash. During the third quarter of 2022, we made a payment of $0.8 million relating to a holdback associated with the acquisition. Milestone payments, which are contingent upon net sales from products incorporating the Simplify Medical cervical disc technology, will become payable in calendar years 2023, 2024 and 2025. The first of these milestones is anticipated to be paid in the first quarter of 2023, and we have accrued approximately $58.8 million for this milestone as of December 31, 2022.

On December 6, 2022, we completed the acquisition of certain intellectual property and other assets from a developer of implantable sensor technology for orthopedic procedures. In connection with the acquisition, we recorded a purchase accounting fair value estimate of $5.5 million for contingent consideration liabilities related to the successful achievement of development, regulatory and commercial milestones. We anticipate the milestones will become payable between 2024 and 2028. These dates are subject to change based on the achievement of those milestones.

Cash and cash equivalents were $248.7 million and $246.1 million at December 31, 2022 and December 31, 2021, respectively. While the efforts to contain and manage the spread and impact of COVID-19 have created significant disruptions to the healthcare system and the global economy, as of the filing date of this report, we believe our existing cash, cash equivalents, projected future cash flows from operations and access to external financing sources are sufficient to satisfy our current and reasonably anticipated requirements for funds to conduct our operations in the ordinary course of our business and pay our obligation as they become due for the next twelve months. Additionally, we have varying needs for cash in connection with our Senior Convertible Notes, of which $450 million of Senior Convertible Notes are due June 2023, as well as for certain acquisition-related obligations and contingent consideration achievements. Future litigation or requirements to escrow funds could also materially impact our liquidity and our ability to invest in and operate our business on an ongoing basis. Although we have no cash borrowings under our existing revolving senior credit facility as of the date of this report, we expect to use our cash resources or cash borrowings under our senior credit facility to support our business within the context of prevailing market and economic conditions, which, given the continued unpredictability of the COVID-19 pandemic and global macroeconomic conditions, could rapidly and materially deteriorate or otherwise change. During this time, we may seek other sources of liquidity through capital market or bank loan transactions to support our business needs. In addition, we may seek to further adjust or amend the terms of and/or expand the capacity of our existing senior credit facility, or enter into additional credit facilities, term loans, or other similar arrangements. However, with continued uncertainty surrounding the COVID-19 pandemic and the macroeconomic conditions discussed above, our ability to engage in such transactions may be constrained by volatile financial market conditions, unfavorable lending terms, reduced investor and/or lender interest or capacity, as well as our liquidity, leverage, and general creditworthiness and we can provide no assurance as to successfully completing such transactions. Furthermore, our ability to borrow under our existing revolving senior credit facility is subject to remaining in compliance with underlying financial covenants which may be difficult to satisfy if our business experiences additional disruptions as a result of the COVID-19 pandemic or global macroeconomic conditions. Further discussion of the potential impacts on our business from the COVID-19 pandemic is provided under Part I, Item 1A – Risk Factors.

On January 1, 2022, a provision of the Tax Cuts and Jobs Act of 2017 went into effect which eliminates the option to deduct research and development expenditures in the year incurred and requires taxpayers to capitalize and amortize domestic expenditures over five years and foreign expenditures over fifteen years. Although Congress is considering legislation that would defer the amortization requirement to later years, it is uncertain whether the provision will be repealed or otherwise modified. As of December 31, 2022, there has been no legislation passed to repeal or modify the provision. This provision has adversely impacted cash flows from operations during 2022 and is expected to continue to adversely impact future cash flows from operations unless the provision is repealed or modified.

The increase in liquidity during the year ended December 31, 2022, of $2.6 million was primarily driven by timing associated with our operating cash flows, $139.2 million in cash outflows for purchases of property and equipment, as well as a $7.5 million payment for the successful achievement of the commercial milestone related to the September 2017 acquisition. At December 31, 2022, we had cash totaling $1.5 million in restricted accounts which is not available to us to meet any ongoing capital requirements if and when needed.

***Cash Flows***

The following table summarizes our Consolidated Statements of Cash Flows:

| | Year Ended December 31, | | 2021 to 2022 | |
|---|---|---|---|---|
| *(in thousands, except %)* | 2022 | 2021 | $ Change | % Change |
| Cash provided by operating activities | $ 169,118 | $ 182,174 | $ (13,056) | (7)% |
| Cash used in investing activities | (155,193) | (136,065) | (19,128) | 14 % |
| Cash used in financing activities | (8,590) | (653,349) | 644,759 | (99)% |
| Effect of exchange rate changes on cash | (2,763) | (3,538) | 775 | (22)% |
| Increase (decrease) in cash, cash equivalents and restricted cash | $ 2,572 | $ (610,778) | $ 613,350 | (100)% |

*Cash Flows from Operating Activities*

Cash provided by operating activities was $169.1 million in 2022, compared to $182.2 million in 2021. The $13.1 million decrease in cash provided by operating activities was primarily due to the timing of collections and payments associated with our accounts receivable, accounts payable and accrued liabilities, and an increase in payments for compensation related accruals, which was partially offset by the timing of spending for inventory purchases during 2022 compared to the same period in 2021.

*Cash Flows from Investing Activities*

Cash used in investing activities was $155.2 million in 2022, compared to $136.1 million used in 2021. The $19.1 million increase in cash used in investing activities was primarily due to an increase in cash used for purchases of property and equipment and for acquisitions and strategic investments of $28.2 million and $14.5 million, respectively in 2022. This increase was offset by a net decrease in cash used for investing activities of $22.3 million, as a result of payments of $195.3 million in connection with the acquisition of Simplify Medical and the associated regulatory milestone being met, offset by proceeds of $173.0 million from sales and maturities of marketable securities in 2021.

*Cash Flows from Financing Activities*

Cash used in financing activities was $8.6 million in 2022, compared to $653.3 million for the same period in 2021. The $644.8 million decrease in cash used in financing activities was primarily due to the $649.4 million payment made in 2021 to settle our Senior Convertible Notes due 2021. This decrease was partially offset by a $7.5 million payment relating to contingent consideration, of which $6.8 million is reflected within our financing activities, and the remainder allocated to our operating activities during 2022.

Treasury stock purchases related to equity award vesting totaled $5.7 million during 2022. We use net share settlement on stock issuances, which results in cash tax payments. Net share settlement is generally used in lieu of cash payments by employees for minimum tax withholding for equity awards. The net share settlement is accounted for as a treasury share repurchase transaction, with the cost of any deemed repurchased shares included in treasury stock and reported as a reduction in total equity at the time of settlement. Additionally, net share settlement for tax withholding requires us to fund a significant amount of cash for certain tax payment obligations from time-to-time with respect to the employee tax obligations for vested equity awards. We anticipate using cash generated from operating activities to fund such payments.

***Senior Convertible Notes***

*1.00% Senior Convertible Notes due 2023*

In June 2020, we issued $450.0 million principal amount of unsecured senior convertible notes with a stated interest rate of 1.00% and a maturity date of June 1, 2023, which we refer to as the 2023 Notes. The net proceeds from the offering, after deducting initial purchasers' discounts and costs directly related to the offering, were approximately $436.7 million. Interest on the 2023 Notes began accruing upon issuance and is payable semi-annually. The 2023 Notes permit us to settle conversions of the 2023 Notes in cash, stock, or a combination thereof, solely at our discretion, and we have elected to settle all conversions in cash. Accordingly, we will satisfy the principal amount outstanding and any note conversion value over the principal amount with cash. We may not redeem the 2023 Notes prior to the maturity date. No principal payments are due on the 2023 Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the 2023 Notes do not contain any financial covenants and do not restrict us from conducting significant restructurings, paying dividends or issuing or repurchasing any of our other securities. Prior to the close of business on the business day immediately preceding February 1, 2023, the 2023 Notes were convertible at the option of holders only upon the satisfaction of specified conditions and during certain periods. On or after February 1, 2023, until the close of business on the second scheduled trading day immediately preceding June 1, 2023, holders may convert their 2023 Notes at any time, regardless of these conditions. The 2023 Notes are included within current liabilities in the Consolidated Balance Sheet.

In connection with the sale of the 2023 Notes, we entered into transactions for convertible notes hedge, which we refer to as the 2023 Hedge, and warrants, which we refer to as the 2023 Warrants. The 2023 Hedge was entered into with certain dealers, which included affiliates of certain of the initial purchasers of the 2023 Notes and other financial institutions, which we refer to as the 2023 Counterparties, entitling us to purchase up to 5,345,010 shares of our own common stock at an initial price of $84.19 per share, each of which is subject to adjustment. The cost of the 2023 Hedge was $69.5 million. The 2023 Hedge will expire on the second scheduled trading day immediately preceding June 1, 2023. The 2023 Hedge is expected to reduce the potential equity dilution upon conversion of the 2023 Notes if the daily volume-weighted average price per share of our common stock exceeds the strike price of the 2023 Hedge. Our assumed exercise of the 2023 Hedge is considered anti-dilutive since the effect of the inclusion would always be anti-dilutive with respect to the calculation of diluted earnings per share.

In addition, we sold the 2023 Warrants to the 2023 Counterparties to acquire up to 5,345,010 common shares of our stock. The 2023 Warrants will expire on various dates from September 2023 through November 2023 and may be settled in net shares or cash, subject to certain conditions. It is our current intent and policy to settle all conversions in shares of our common stock. We received $46.8 million in cash proceeds from the sale of the 2023 Warrants. The 2023 Warrants could have a dilutive effect on our earnings per share to the extent that the price of our common stock during a given measurement period exceeds the strike price of the 2023 Warrants, which is $104.84 per share.

*0.375% Senior Convertible Notes due 2025*

In March 2020, we issued $450.0 million principal amount of unsecured senior convertible notes with a stated interest rate of 0.375% and a maturity date of March 15, 2025, which we refer to as the 2025 Notes. The net proceeds from the offering, after deducting initial purchasers' discounts and costs directly related to the offering, were approximately $437.0 million. Interest on the 2025 Notes began accruing upon issuance and is payable semi-annually. The 2025 Notes may be settled in cash, stock, or a combination thereof, solely at our discretion. It is our current intent and policy to settle all conversions through combination settlement, which involves satisfying the principal amount outstanding with cash and any note conversion value over the principal amount in shares of our common stock. On or after September 15, 2024, until the close of business on the second scheduled trading day immediately preceding March 15, 2025, holders may convert their 2025 Notes at any time, regardless of the foregoing conditions.

We may not redeem the 2025 Notes prior to March 20, 2023. We may redeem the 2025 Notes, at our option, in whole or in part, on or after March 20, 2023 until the close of business on the business day immediately preceding September 15, 2024, if the last reported sale price of our common stock has been at least 130% of the conversion price then in effect for at least 20 trading days during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which we deliver written notice of a redemption. The redemption price will be equal to 100% of the principal amount of such 2025 Notes to be redeemed plus accrued and unpaid interest to, but excluding, the redemption date. No principal payments are due on the 2025 Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the 2025 Notes do not contain any financial covenants and do not restrict us from conducting significant restructurings, paying dividends or issuing or repurchasing any of our other securities. As of December 31, 2022, we are unaware of any current events or market conditions that would allow holders to convert the 2025 Notes.

In connection with the sale of the 2025 Notes, we entered into transactions for convertible notes hedge, which we refer to as the 2025 Hedge, and warrants, which we refer to as the 2025 Warrants. The 2025 Hedge was entered into with certain dealers, which included affiliates of certain of the initial purchasers of the 2025 Notes and other financial institutions, which we refer to as the 2025 Counterparties, entitling us to purchase up to 4,823,910 shares of our own common stock at an initial stock price of $93.29 per share, each of which is subject to adjustment. The cost of the 2025 Hedge was $78.3 million. The 2025 Hedge will expire on the second scheduled trading day immediately preceding March 15, 2025. The 2025 Hedge is expected to reduce the potential equity dilution upon conversion of the 2025 Notes if the daily volume-weighted average price per share of our common stock exceeds the strike price of the 2025 Hedge. Our assumed exercise of the 2025 Hedge is considered anti-dilutive since the effect of the inclusion would always be anti-dilutive with respect to the calculation of diluted earnings per share.

In addition, we sold the 2025 Warrants to the 2025 Counterparties to acquire up to 4,823,910 common shares of our stock. The 2025 Warrants will expire on various dates from June 2025 through October 2025 and may be settled in net shares or cash, subject to certain conditions. It is our current intent and policy to settle all conversions in shares of our common stock. We received $47.1 million in cash proceeds from the sale of the 2025 Warrants. The 2025 Warrants could have a dilutive effect on our earnings per share to the extent that the price of our common stock during a given measurement period exceeds the strike price of the 2025 Warrants, which is $127.84 per share.

***Revolving Senior Credit Facility***

In February 2020, we entered into a Second Amended and Restated Credit Agreement, or the 2020 Credit Agreement, for a revolving senior credit facility, referred to as the 2020 Facility, which replaced the previous Amended and Restated Credit Agreement we had entered into in April 2017. The 2020 Credit Agreement was further amended in May 2020 to, among other things, provide additional flexibility in determining the financial covenant leverage ratios for the second and third fiscal quarters of 2020 and to adjust certain margin and benchmark rates used to determine interest under the 2020 Facility. The 2020 Credit Agreement provides for secured revolving loans, multicurrency loan options and letters of credit in an aggregate amount of up to $550.0 million. We did not carry any outstanding revolving loans under the 2020 Facility as of December 31, 2022 and 2021.

Any borrowings under the 2020 Facility are intended to be used to provide financing for working capital and other general corporate purposes, including potential mergers and acquisitions and to refinance indebtedness. Borrowings under the 2020 Facility bear interest, at our option, at a rate equal to an applicable margin plus: (a) the applicable Eurocurrency Rate (as defined in the 2020 Credit Agreement), or (b) a base rate determined by reference to the highest of (1) the federal funds effective rate plus 0.50%, (2) the Bank of America prime rate, and (3) the Eurocurrency Rate plus 1.00%. The margin for the 2020 Facility ranges, based on our consolidated total net leverage ratio, from 0.50% to 1.25% in the case of base rate loans and from 1.50% to 2.25% in the case of Eurocurrency Rate loans. The 2020 Facility includes an unused line fee ranging, based on our consolidated total net leverage ratio, from 0.35% to 0.50% per annum on the revolving commitment.

The 2020 Credit Agreement contains affirmative, negative, permitted acquisition and financial covenants, and events of default customary for financings of this type. The financial covenants require us to maintain a consolidated interest coverage ratio and certain consolidated leverage ratios, which are measured on a quarterly basis. The 2020 Facility grants the lenders preferred first priority liens and security interests in capital stock, intercompany debt and all of our present and future property and assets including each guarantor. As of December 31, 2022, we are in compliance with the 2020 Credit Agreement covenants.

See Note 5, Indebtedness, in the Notes to Consolidated Financial Statements included in this Annual Report for more information about the terms of the 2023 Notes, the 2023 Hedge, the 2023 Warrants, the 2025 Notes, the 2025 Hedge, the 2025 Warrants and the 2020 Credit Agreement.

**Contractual Obligations and Commitments**

Contractual obligations and commitments represent future cash commitments and liabilities under agreements with third parties, including our Senior Convertible Notes, operating leases and other contractual obligations.

The following table summarizes our contractual obligations and commitments as of December 31, 2022:

| | | Payments Due by Period | | | |
|---|---|---|---|---|---|
| *(in thousands)* | Total | Less Than 1 Year | 1 to 3 Years | 4 to 5 Years | After 5 Years |
| Convertible Notes (1) | $ 906,469 | $ 453,938 | $ 452,531 | $ — | $ — |
| Operating leases | 153,071 | 15,817 | 27,479 | 24,620 | 85,155 |
| Finance leases | 2,044 | 1,139 | 853 | 52 | — |
| Other obligations | 65,842 | 61,180 | 1,973 | 1,091 | 1,598 |
| Total | $ 1,127,426 | $ 532,074 | $ 482,836 | $ 25,763 | $ 86,753 |

(1) Senior Convertible Notes includes the expected coupon interest payments on the outstanding debt. See Note 5, Indebtedness, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion of the terms of the Senior Convertible Notes.

Total contractual obligations and commitments listed in the table above excludes potential contingent consideration payments pursuant to certain merger, purchase, and product development agreements, other than achieved milestones. See Note 4, Financial Instruments and Fair Value Measurements, and Note 6, Commitments, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on the contingent consideration obligations and product development agreements, respectively.

The expected timing of payments of the obligations discussed above is estimated based on current information. Timing of payment and actual amounts paid may be different depending on the time of receipt of services or changes to agreed-upon amounts for some obligations.

**Off-Balance Sheet Arrangements**

As of December 31, 2022, we did not have any off-balance sheet activities.

**Item 7A.** ***Quantitative and Qualitative Disclosures About Market Risk***

*Interest Rate Sensitivity and Risk*

Our exposure to interest rate risk at December 31, 2022 is related to our investment portfolio which consists largely of money market funds of high quality financial institutions. Due to the short-term nature of these investments, we have assessed that there is no material exposure to interest rate risk arising from our investments. Fixed rate investments and borrowings may have their fair market value adversely impacted from changes in interest rates. As of December 31, 2022, we do not hold any material asset-backed investment securities and in 2022, we did not realize any losses related to asset-backed investment securities. Based upon our overall interest rate exposure as of December 31, 2022, a change of 10 percent in interest rates, assuming the amount of our investment portfolio and overall economic environment remains constant, would not have a material effect on interest income.

The primary objective of our investment activities is to preserve the principal while at the same time maximizing yields without significantly increasing the risk. To achieve this objective, we maintain our portfolio of cash equivalents and investments in instruments that meet high credit quality standards, as specified in our investment policy. None of our investments are held for trading purposes. Our policy also limits the amount of credit exposure to any one issue, issuer and type of instrument.

As of December 31, 2022, we only held investments in securities classified as cash equivalents and marketable equity securities. During the periods presented, we did not hold any investments that were in a significant unrealized loss position and no impairment charges were recorded. Realized gains and losses and interest income related to cash equivalents were immaterial during all periods presented.

*Market Price Sensitive Instruments*

In order to reduce the potential equity dilution associated with our convertible notes, we entered into the 2023 Hedge and 2025 Hedge in connection with the issuances of 2023 Notes and 2025 Notes, respectively, entitling us to purchase our common stock. Upon conversion of our convertible notes, the 2023 Hedge and 2025 Hedge are expected to reduce the equity dilution if the daily volume-weighted average price per share of our common stock exceeds the strike price of the applicable hedge. We also entered into warrant transactions with the counterparties of the 2023 Hedge and 2025 Hedge entitling them to acquire shares of our common stock. The warrant transactions could have a dilutive effect on our earnings per share to the extent that the price of our common stock during a given measurement period (the quarter or year to date period) exceeds the strike price of the warrants. See Note 5, Indebtedness, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion.

*Foreign Currency Exchange Risk*

A substantial portion of our operations are located in the U.S., and the majority of our sales since inception have been made in U.S. dollars. However, as our business in markets outside of the U.S. continues to increase, our exposure to foreign currency exchange risk related to our foreign operations will continue to grow. Fluctuations in the rate of exchange between the U.S. dollar and foreign currencies, primarily the Australian dollar, the Brazilian real, the British pound sterling, the Colombian peso, the euro, the Japanese yen, and the Singapore dollar, has had and could continue to have an adverse effect on our financial results, including our net sales, net sales growth rates, gross margins, income and losses as well as assets and liabilities. In particular, as a result of our acquisition of Simplify Medical, we have additional exposure to fluctuations in the Australian dollar. We established intercompany receivables and payables in Australian dollars in connection with the acquisition of Simplify Medical, a proprietary limited company registered in Australia. We also have future contingent consideration liabilities denominated in U.S. dollars, in connection with the acquisition of Simplify Medical, which are the financial obligation of NuVasive (AUST/NZ) Pty Limited, an Australian dollar denominated company. In addition, loss of financial stability within these markets could lead to delays in reimbursement or inability to remit payment due to currency controls. Specifically, we have operations in Puerto Rico, Brazil, and Argentina that have financial instability or currency controls.

We translate the financial statements of our foreign subsidiaries with functional currencies other than the U.S. dollar into the U.S. dollar for consolidation using end-of-period exchange rates for assets and liabilities and average exchange rates during each reporting period for results of operations. Net gains or losses resulting from the translation of foreign financial statements and the effect of exchange rate changes on intercompany receivables and payables of a long-term investment nature are recorded as a separate component of stockholders' equity. These adjustments will affect net income only upon sale or liquidation of the underlying investment in foreign subsidiaries. Exchange rate fluctuations resulting from the translation of the short-term intercompany balances between domestic entities and our foreign subsidiaries are recorded as foreign currency transaction gains or losses and are included in other expense, net in the Consolidated Statements of Operations. For those short-term intercompany balances, we enter into the foreign currency forward contracts to partially offset the impact from fluctuation of the foreign currency rates. The notional amount of the outstanding foreign currency forward contracts was $15.0 million as of December 31, 2022, which will be settled in January 2023. During the year ended December 31, 2022, a gain of $2.2 million was recognized in other expense, net due to the change in the fair value of the derivative instruments, and the fair value of the hedge contracts we held was $(0.2) million on our Consolidated Balance Sheets as of December 31, 2022. The derivative instruments are recorded in other current assets or other current liabilities in the Consolidated Balance Sheets commensurate with the nature of the instrument at period end. The notional principal amounts provide one measure of the transaction volume outstanding as of period end, but do not represent the amount of our exposure to market loss. The estimates of fair value are based on applicable and commonly used pricing models using prevailing financial market information. The amounts ultimately realized upon settlement of these financial instruments, together with the gains and losses on the underlying exposures, will depend on actual market conditions during the remaining life of the instruments. The financial exposures by exchange rate fluctuations are monitored and managed by us as an integral part of our overall risk management program, which recognizes the unpredictability of financial markets and seeks to reduce potentially adverse effects on our results.

**Item 8.** ***Financial Statements and Supplementary Data***

The Consolidated Financial Statements and supplementary data required by this item are set forth at the pages indicated in Item 15 of this Annual Report.

**Item 9.** ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

**Item 9A.** ***Controls and Procedures***

*Disclosure Controls and Procedures*

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports under the Securities Exchange Act of 1934, as amended (Exchange Act) is recorded, processed, summarized and reported within the timelines specified in the Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we carried out an evaluation of the effectiveness of the Company's disclosure controls and procedures (as defined in SEC Rules 13a — 15(e) and 15d — 15(e) of the Exchange Act) as of December 31, 2022. Based on such evaluation, our management has concluded as of December 31, 2022, the Company's disclosure controls and procedures are effective.

*Management's Report on Internal Control over Financial Reporting*

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Management has used the framework set forth in the report entitled *Internal Control — Integrated Framework* published by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) to evaluate the effectiveness of the Company's internal control over financial reporting. On May 14, 2013, the Committee of Sponsoring Organizations of the Treadway Commission published a 2013 framework and related illustrative documents. We adopted this framework during 2014. Management has concluded that the Company's internal control over financial reporting was effective as of December 31, 2022, based on those criteria. Ernst & Young LLP, the Company's independent registered public accounting firm, has issued an attestation report on the Company's internal control over financial reporting which is included herein.

*Changes in Internal Control over Financial Reporting*

We are involved in ongoing evaluations of internal controls. In anticipation of the filing of this Form 10-K, our Chief Executive Officer and Chief Financial Officer, with the assistance of other members of our management, performed an evaluation of any change in internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting. There has been no change to our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of NuVasive, Inc.

**Opinion on Internal Control over Financial Reporting**

We have audited NuVasive, Inc.'s internal control over financial reporting as of December 31, 2022, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, NuVasive, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of NuVasive, Inc. as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes and our report dated February 22, 2023 expressed an unqualified opinion thereon.

**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 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/ Ernst & Young LLP

San Diego, California
February 22, 2023

**Item 9B.** ***Other Information***

None.

**Item 9C.** ***Disclosure Regarding Foreign Jurisdictions that Prevent Inspections***

Not applicable.

## PART III

Certain information required by Part III is omitted from this report because the Company will file a definitive proxy statement within 120 days after the end of its fiscal year pursuant to Regulation 14A (the Proxy Statement) for its 2023 annual meeting of stockholders, and certain information included in the Proxy Statement is incorporated herein by reference.

### Item 10. *Directors, Executive Officers and Corporate Governance*

We have adopted a Code of Conduct for all officers, directors and employees. The Code of Conduct is available on our website, *www.nuvasive.com*. We intend to disclose future amendments to, or waivers from, provisions of our Code of Conduct that apply to our Principal Executive Officer, Principal Financial Officer, Principal Accounting Officer, or Controller, or persons performing similar functions, within four business days of such amendment or waiver.

The other information required by this Item 10 will be set forth in the Proxy Statement and is incorporated in this report by reference.

### Item 11. *Executive Compensation*

The information required by this item will be set forth in the Proxy Statement and is incorporated in this report by reference.

### Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters*

The information required by this item will be set forth in the Proxy Statement and is incorporated in this report by reference.

**Equity Compensation Plan Information**

The following table provides certain information with respect to all of our compensation plans in effect as of December 31, 2022:

| Plan Category | (A) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights | | (B) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights | (C) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column(A)) | |
|---|---|---|---|---|---|
| Equity Compensation Plans approved by stockholders | 1,923,969 | (1) | $ — | 3,423,002 | (2) |
| Equity Compensation Plans not approved by stockholders | — | | — | — | |
| Total | 1,923,969 | | $ — | 3,423,002 | |

(1) Consists of shares subject to outstanding stock options, restricted stock units and performance restricted stock units under the NuVasive 2014 Equity Incentive Plan and the Ellipse Technologies 2015 Incentive Award Plan, some of which are vested and some of which remain subject to the vesting and/or performance criteria of the respective equity award.

(2) Consists of shares available for future issuance under the NuVasive 2014 Equity Incentive Plan, the Ellipse Technologies 2015 Incentive Award Plan, and the 2004 Amended and Restated Employee Stock Purchase Plan, or ESPP. As of December 31, 2022, an aggregate of 2,586,396 shares of common stock were available for issuance under the NuVasive 2014 Equity Incentive Plan, 302,648 shares of common stock were available for issuance under the Ellipse Technologies 2015 Incentive Award Plan, and 533,958 shares of common stock were available for issuance under the 2004 Amended and Restated Employee Stock Purchase Plan.

### Item 13. *Certain Relationships and Related Transactions, and Director Independence*

The information required by this item will be set forth in the Proxy Statement and is incorporated in this report by reference.

**Item 14.** ***Principal Accountant Fees and Services***

The information required by this item will be set forth in the Proxy Statement and is incorporated in this report by reference.

## PART IV

**Item 15.** ***Exhibits, Financial Statement Schedules***

(a) The following documents are filed as a part of this report:

(1) Report of Independent Registered Public Accounting Firm (PCAOB ID 42)

Consolidated Balance Sheets as of December 31, 2022 and 2021

Consolidated Statements of Operations for the years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Equity for the years ended December 31, 2022, 2021 and 2020

Consolidated Statements of Cash Flows for the years ended December 31, 2022, 2021 and 2020

Notes to Consolidated Financial Statements

(2) Financial Statement Schedules: Schedule II — Valuation Accounts

All other financial statement schedules have been omitted because they are not applicable, not required or the information required by such schedules is shown in the financial statements or the notes thereto.

(3) Exhibits

See Item 15, subsection (b) below.

(b) The following exhibits are filed as part of this report:

| Exhibit Number | Description |
|---|---|
| 2.1† | Agreement and Plan of Merger, dated as of February 8, 2023, by and among NuVasive, Inc., Globus Medical, Inc. and Zebra Merger Sub, Inc. (incorporated by reference to our Current Report on Form 8-K filed with the Commission on February 9, 2023) |
| 3.1 | Restated Certificate of Incorporation (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on August 13, 2004) |
| 3.2 | Certificate of Amendment to the Restated Certificate of Incorporation (incorporated by reference to our Current Report on Form 8-K filed with the Commission on September 28, 2011) |
| 3.3 | Certificate of Amendment to the Restated Certificate of Incorporation (incorporated by reference to our Current Report on Form 8-K filed with the SEC on September 10, 2020) |
| 3.4 | Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed with the Commission on January 6, 2012) |
| 3.5 | Amendment No. 1 to the Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed with the Commission on May 19, 2014) |
| 3.6 | Amendment No. 2 to the Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed with the Commission on August 1, 2016) |
| 3.7 | Amendment No. 3 to the Restated Bylaws (incorporated by reference to our Current Report on Form 8-K filed with the Commission on February 9, 2023) |
| 4.1 | Specimen Common Stock Certificate (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on March 15, 2006) |
| 4.2 | Certificate of Designations of Series A Participating Preferred Stock filed with the Delaware Secretary of State on June 28, 2011 (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 29, 2011) |
| 4.3 | Indenture, dated March 2, 2020, between the Company and Wilmington Trust, National Association, as Trustee (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 4.4 | Form of 0.375% Convertible Senior Note due 2025 (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |

| Exhibit Number | Description |
|---|---|
| 4.5 | Indenture, dated June 1, 2020, between the Company and Wilmington Trust, National Association, as Trustee (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 4.6 | Form of 1.00% Convertible Senior Note due 2023 (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 4.7 | Description of Registrant's Securities (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.1# | 2004 Amended and Restated Employee Stock Purchase Plan of NuVasive, Inc. (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on October 30, 2014) |
| 10.2# | Amendment No. 1 to 2004 Amended and Restated Employee Stock Purchase Plan of NuVasive, Inc. (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2019) |
| 10.3# | Amendment No. 2 to 2004 Amended and Restated Employee Stock Purchase Plan of NuVasive, Inc. (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on November 9, 2022) |
| 10.4# | 2014 Equity Incentive Plan (incorporated by reference to Exhibit A to our Definitive Proxy Statement filed with the Commission on March 27, 2014) |
| 10.5# | Form of Performance Restricted Stock Unit Agreement (with accompanying Form Notice of Grant) under the 2014 Equity Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 4, 2015) |
| 10.6# | Form of Executive Restricted Stock Unit Agreement (with accompanying Form Notice of Grant) under the 2014 Equity Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 4, 2015) |
| 10.7# | Form of Performance Cash Award Agreement (with accompanying Form Notice of Grant) under the 2014 Equity Incentive Plan (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 4, 2015) |
| 10.8# | Form of Performance Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2019 (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.9# | Form of Restricted Stock Unit Agreement (with accompanying Form Notice of Grant) for grants on or after March 1, 2019 (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.10# | Form of Performance Cash Award Agreement (with accompanying Form Notice of Grant) for grants on or after March 1, 2019 (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.11# | Form of Performance Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2020 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 6, 2020) |
| 10.12# | Form of Restricted Stock Unit Agreement (with accompanying Form Notice of Grant) for grants on or after March 1, 2020 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 6, 2020) |
| 10.13# | Form of Performance Cash Award Agreement (with accompanying Form Notice of Grant) for grants on or after March 1, 2020 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 6, 2020) |
| 10.14# | Form of Performance Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2021 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 5, 2021) |
| 10.15# | Form of Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2021 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 5, 2021) |
| 10.16# | Form of Performance Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2022 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 4, 2022) |
| 10.17# | Form of Restricted Stock Unit Agreement (with accompanying Notice of Grant) for grants on or after March 1, 2021 (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on May 5, 2021) |

| Exhibit Number | Description |
|---|---|
| 10.18# | NuVasive, Inc. 2014 Executive Incentive Compensation Plan (incorporated by reference to Exhibit B to our Definitive Proxy Statement filed with the Commission on March 27, 2014) |
| 10.19# | 2015 Ellipse Technologies, Inc. Incentive Award Plan (incorporated by reference to our Registration Statement on Form S-8 filed with the Commission on February 11, 2016) |
| 10.20# | Form of Indemnification Agreement between the Company and its directors and certain executives thereof (incorporated by reference to our Current Report on Form 8-K filed with the Commission on May 19, 2014) |
| 10.21# | NuVasive, Inc. Amended and Restated Executive Severance Plan (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on July 27, 2017) |
| 10.22# | Form of Change in Control Agreement between the Company and certain executives thereof (incorporated by reference to our Current Report on Form 8-K filed with the Commission on May 19, 2014) |
| 10.23# | NuVasive, Inc. Deferred Compensation Plan (incorporated by reference to our Current Report on Form 8-K filed with the Commission on August 6, 2015) |
| 10.24# | Employment Letter dated October 16, 2018 between the Company and J. Christopher Barry (incorporated by reference to our Current Report on Form 8-K filed with the Commission on October 19, 2018) |
| 10.25# | Employment Letter dated December 27, 2019 between the Company and Matthew K. Harbaugh (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.26# | Separation Agreement and General Release dated November 8, 2021 between the Company and Brent Boucher (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 23, 2022) |
| 10.27# | Employment Letter dated June 19, 2018 between the Company and Nathaniel B. Sisitsky, Esq. (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.38# | Employment Letter dated October 25, 2019 between the Company and Dale Wolf (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 25, 2021) |
| 10.29# | Employment Letter dated August 22, 2022 between the Company and Michael Farrington (incorporated by reference to our Quarterly Report on Form 10-K filed with the Commission on November 9, 2022) |
| 10.30# | Non-Employee Director Cash Compensation Plan (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on February 20, 2020) |
| 10.31 | Lease for Sorrento Summit, dated as of August 28, 2017, by and between HCPI/Sorrento, LLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on August 29, 2017) |
| 10.32 | Second Amended and Restated Credit Agreement, dated as of February 24, 2020, by and among the Company, certain material subsidiaries of the Company, as guarantors, Bank of America, N.A. and each of those additional Lenders that are a party to such agreement (incorporated by reference to our Current Report on Form 8-K filed with the Commission on February 26, 2020) |
| 10.33 | Amendment No. 1 to Credit Agreement, dated as of May 26, 2020, by and among NuVasive, Inc., Bank of America, N.A. and each of those additional Lenders that are a party to such agreement (incorporated by reference to our Current Report on Form 8-K filed with the Commission on May 26, 2020) |
| 10.34 | Second Amended and Restated Security Agreement, dated as of February 24, 2020, by and among the Company, certain material subsidiaries of the Company, as guarantors, and Bank of America, N.A. (incorporated by reference to our Current Report on Form 8-K filed with the Commission on February 26, 2020) |
| 10.35 | Confirmation for base call option transaction dated as of February 26, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.36 | Confirmation for base call option transaction dated as of February 26, 2020, between JPMorgan Chase Bank, National Association and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.37 | Confirmation for base call option transaction dated as of February 26, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.38 | Confirmation for base call option transaction dated as of February 26, 2020, between The Bank of Nova Scotia and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.39 | Confirmation for base call option transaction dated as of February 26, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |

| Exhibit Number | Description |
|---|---|
| 10.40 | Confirmation for base warrant transaction dated as of February 26, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.41 | Confirmation for base warrant transaction dated as of February 26, 2020, between JPMorgan Chase Bank, National Association and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.42 | Confirmation for base warrant transaction dated as of February 26, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.43 | Confirmation for base warrant transaction dated as of February 26, 2020, between The Bank of Nova Scotia and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.44 | Confirmation for base warrant transaction dated as of February 26, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.45 | Amendment Agreement, dated February 26, 2020, between the Company and Bank of America, N.A. (incorporated by reference to our Current Report on Form 8-K filed with the Commission on March 2, 2020) |
| 10.46 | Confirmation for base call option transaction dated as of May 27, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.47 | Confirmation for base call option transaction dated as of May 27, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.48 | Confirmation for base call option transaction dated as of May 27, 2020, between Bank of America, N.A. and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.49 | Confirmation for base call option transaction dated as of May 27, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.50 | Confirmation for base warrant transaction dated as of May 27, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.51 | Confirmation for base warrant transaction dated as of May 27, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.52 | Confirmation for base warrant transaction dated as of May 27, 2020, between Bank of America, N.A. and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.53 | Confirmation for base warrant transaction dated as of May 27, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 1, 2020) |
| 10.54 | Confirmation for additional call option transaction dated as of June 2, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.55 | Confirmation for additional call option transaction dated as of June 2, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.56 | Confirmation for additional call option transaction dated as of June 2, 2020, between Bank of America, N.A. and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.57 | Confirmation for additional call option transaction dated as of June 2, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.58 | Confirmation for additional warrant transaction dated as of June 2, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |

| Exhibit Number | Description |
|---|---|
| 10.59 | Confirmation for additional warrant transaction dated as of June 2, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.60 | Confirmation for additional warrant transaction dated as of June 2, 2020, between Bank of America, N.A. and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.61 | Confirmation for additional warrant transaction dated as of June 2, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Current Report on Form 8-K filed with the Commission on June 4, 2020) |
| 10.62 | Amendment Agreement dated as of October 26, 2020, between Morgan Stanley & Co. International plc and the Company (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on October 29, 2020) |
| 10.63 | Amendment Agreement dated as of October 26, 2020, between Royal Bank of Canada and the Company (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on October 29, 2020) |
| 10.64 | Amendment Agreement dated as of October 26, 2020, between Bank of America, N.A. and the Company (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on October 29, 2020) |
| 10.65 | Amendment Agreement dated as of October 26, 2020, between Barclays Bank PLC and the Company (incorporated by reference to our Quarterly Report on Form 10-Q filed with the Commission on October 29, 2020) |
| 10.66 | Voting and Support Agreement, dated as of February 8, 2023, by and among NuVasive, Inc., Globus Medical, Inc., David Paul and Sonali Paul. (incorporated by reference to our Current Report on Form 8-K filed with the Commission on February 9, 2023) |
| 21.1 | List of subsidiaries of the Company |
| 23.1 | Consent of Independent Registered Public Accounting Firm |
| 31.1 | Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended |
| 31.2 | Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended |
| 32.1* | Certifications of the Chief Executive Officer and Chief Financial Officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. section 1350 |
| 101.INS | Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document |
| 101.SCH | Inline XBRL Taxonomy Extension Schema Document |
| 101.CAL | Inline XBRL Taxonomy Calculation Linkbase Document |
| 101.DEF | Inline XBRL Taxonomy Definition Linkbase Document |
| 101.LAB | Inline XBRL Taxonomy Label Linkbase Document |
| 101.PRE | Inline XBRL Taxonomy Presentation Linkbase Document |
| 104 | Cover Page Interactive Data File (formatted as Inline XBRL with applicable taxonomy extension information contained in Exhibit 101.INS) |

† Schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K. The Company hereby undertakes to furnish supplemental copies of any of the omitted schedules upon request by the U.S. Securities and Exchange Commission; provided, that the Company may request confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, for any schedules so furnished.

# Indicates management contract or compensatory plan.

* These certifications are being furnished solely to accompany this annual report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of NuVasive, Inc., whether made before or after the date hereof, regardless of any general incorporation language in such filing.

**Item 16.** ***Form 10-K Summary***

The Company has elected not to provide a summary.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**NUVASIVE, INC.**

Date: February 22, 2023

By: /s/ J. Christopher Barry

J. Christopher Barry
Chief Executive Officer
(Principal Executive Officer)

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints J. Christopher Barry and Matthew K. Harbaugh, jointly and severally, his or her attorneys-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his or her substitute or substitutes may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

| Signature | Title | Date |
|---|---|---|
| /s/ J. Christopher Barry<br>J. Christopher Barry | Chief Executive Officer and Director<br>(Principal Executive Officer) | February 22, 2023 |
| /s/ Matthew K. Harbaugh<br>Matthew K. Harbaugh | Executive Vice President and Chief Financial Officer<br>(Principal Financial Officer) | February 22, 2023 |
| /s/ Marc Rosenbaum<br>Marc Rosenbaum | Vice President, Corporate Controller and Chief Accounting Officer<br>(Principal Accounting Officer) | February 22, 2023 |
| /s/ Vickie L. Capps<br>Vickie L. Capps | Director | February 22, 2023 |
| /s/ John A. DeFord<br>John A. DeFord, Ph.D. | Director | February 22, 2023 |
| /s/ Robert F. Friel<br>Robert F. Friel | Director | February 22, 2023 |
| /s/ R. Scott Huennekens<br>R. Scott Huennekens | Director | February 22, 2023 |
| /s/ Siddhartha C. Kadia<br>Siddhartha C. Kadia, Ph.D. | Director | February 22, 2023 |
| /s/ Leslie V. Norwalk<br>Leslie V. Norwalk, Esq. | Director | February 22, 2023 |
| /s/ Amy Belt Raimundo<br>Amy Belt Raimundo | Director | February 22, 2023 |
| /s/ Daniel J. Wolterman<br>Daniel J. Wolterman | Director | February 22, 2023 |

**NUVASIVE, INC.**

**INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

## Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of NuVasive, Inc.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of NuVasive, Inc. (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), equity and cash flows for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

We also have 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, 2022, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework), and our report dated February 22, 2023 expressed an unqualified opinion thereon.

**Adoption of ASU No. 2020-06**

As discussed in Note 1 to the consolidated financial statements, the Company changed its method of accounting for convertible instruments in 2021 due to the adoption of ASU No. 2020-06, *Debt–Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging–Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*.

**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 Matters**

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate 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 consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

***Valuation of inventory***

*Description of the Matter*

The Company's inventories totaled $338.6 million as of December 31, 2022. As explained in Note 1 to the consolidated financial statements, the Company reviews the components of its inventory on a periodic basis for excess and obsolescence and adjusts inventory to its net realizable value as necessary.

Auditing management's calculation of estimated excess and obsolete inventory involved subjective auditor judgment because the estimate was sensitive to changes in significant assumptions. In particular, such assumptions include product life cycle and net sales forecasts as well as specific product considerations such as timing of the introduction and development of new or enhanced products.

*How We Addressed the Matter in Our Audit*

We evaluated and tested the design and operating effectiveness of internal controls over the Company's excess and obsolete inventory valuation process, including controls over management's assessment of the assumptions and controls related to the completeness and accuracy of data, including calculations underlying the excess and obsolete inventory valuation.

Our substantive audit procedures included, among others, evaluating and testing the significant assumptions stated above and the accuracy and completeness of the underlying data used in management's excess and obsolete inventory valuation assessment. To test inventory excess and obsolescence assumptions, we compared the on-hand inventory quantities to net sales forecasts and historical sales and evaluated adjustments to net sales forecasts for specific product considerations, such as product life cycles and timing of the introduction and development of new or enhanced products. We also assessed the historical accuracy of management's estimate and performed sensitivity analyses over the significant assumptions to evaluate the impact of changes in the obsolete and excess inventory estimate that would result from changes in the underlying assumptions.

***Valuation of the contingent consideration liability assumed in the Simplify Medical acquisition***

*Description of the Matter*

As disclosed in Note 3 to the consolidated financial statements, the fair value of contingent consideration liabilities assumed in business combinations is recorded as part of the purchase price consideration of the acquisition and fair value adjustments to contingent consideration liabilities are recorded through operating expenses in the Consolidated Statements of Operations. The Company completed the acquisition of Simplify Medical Pty Limited ("Simplify Medical") on February 24, 2021 and as of December 31, 2022, the amount recorded for future estimated contingent consideration related to the Simplify Medical acquisition is $96.3 million.

Auditing the Company's accounting for the fair value of the contingent consideration liability assumed in connection with its acquisition of Simplify Medical was complex due to the significant estimation uncertainty and sensitivity of the fair value to underlying assumptions about forecasted net sales. The significant judgments made and assumptions used to estimate the fair value of the contingent consideration liability included certain unobservable inputs that form the basis of the forecasted net sales. These significant assumptions are forward-looking and could be affected by future economic and market conditions.

*How We Addressed the Matter in Our Audit*

We evaluated and tested the design and operating effectiveness of internal controls over the Company's process for determining the fair value of the contingent consideration liability assumed in connection with the Simplify Medical acquisition, including controls over management's review of the significant assumptions and other inputs used in the determination of estimated future net sales.

To test the fair value of the contingent liability, our substantive procedures included, among others, assessing the Company's selection of the valuation method and testing the model and significant assumptions discussed above. Net sales forecasts were evaluated for reasonableness against internal and external analyses as well as external industry and market information. Our procedures included, where necessary, consideration of available information that either corroborated or contradicted management's conclusions. We involved valuation specialists to assist in assessing the significant assumptions and methodologies used by the Company.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2000.

San Diego, California

February 22, 2023

**NUVASIVE, INC.**

**CONSOLIDATED BALANCE SHEETS**

**(in thousands, except par value data)**

| | December 31, | |
|---|---|---|
| | 2022 | 2021 |
| **ASSETS** | | |
| Current assets: | | |
| Cash and cash equivalents | $ 248,663 | $ 246,091 |
| Accounts receivable, net of allowances of $19,601 and $21,064, respectively | 249,373 | 214,398 |
| Inventory, net | 338,601 | 315,845 |
| Prepaid income taxes | 7,118 | 5,425 |
| Prepaid expenses and other current assets | 21,457 | 20,665 |
| Total current assets | 865,212 | 802,424 |
| Property and equipment, net | 346,510 | 303,664 |
| Intangible assets, net | 184,289 | 242,675 |
| Goodwill | 639,663 | 633,467 |
| Operating lease right-of-use assets | 95,112 | 102,987 |
| Deferred tax assets | 68,273 | 48,003 |
| Restricted cash and investments | 1,494 | 1,494 |
| Other assets | 23,952 | 19,361 |
| Total assets | $ 2,224,505 | $ 2,154,075 |
| **LIABILITIES AND EQUITY** | | |
| Current liabilities: | | |
| Accounts payable and accrued liabilities | $ 120,333 | $ 115,614 |
| Contingent consideration liabilities | 66,975 | 7,986 |
| Accrued payroll and related expenses | 58,448 | 66,596 |
| Operating lease liabilities | 10,019 | 9,867 |
| Income tax liabilities | 12,217 | 828 |
| Senior convertible notes | 448,056 | — |
| Total current liabilities | 716,048 | 200,891 |
| Long-term senior convertible notes | 444,202 | 884,984 |
| Deferred and other tax liabilities | 13,088 | 3,049 |
| Operating lease liabilities | 103,806 | 111,592 |
| Contingent consideration liabilities | 63,640 | 139,824 |
| Other long-term liabilities | 14,831 | 18,528 |
| Commitments and contingencies | | |
| Stockholders' equity: | | |
| Preferred stock, $0.001 par value; 5,000 shares authorized, none outstanding | — | — |
| Common stock, $0.001 par value; 150,000 shares authorized at December 31, 2022 and December 31, 2021; 58,939 shares issued and 52,134 outstanding at December 31, 2022; 58,469 shares issued and 51,769 outstanding at December 31, 2021 | 63 | 63 |
| Additional paid-in capital | 1,469,411 | 1,434,976 |
| Accumulated other comprehensive loss | (3,249) | (7,792) |
| Retained earnings | 86,115 | 45,708 |
| Treasury stock at cost; 6,805 shares and 6,700 shares at December 31, 2022 and December 31, 2021, respectively | (683,450) | (677,748) |
| Total equity | 868,890 | 795,207 |
| Total liabilities and equity | $ 2,224,505 | $ 2,154,075 |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

**(in thousands, except per share amounts)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2022** | **2021** | **2020** |
| Net sales: | | | |
| Products | $ 1,090,954 | $ 1,034,612 | $ 950,189 |
| Services | 110,988 | 104,376 | 100,393 |
| Total net sales | 1,201,942 | 1,138,988 | 1,050,582 |
| Cost of sales (excluding below amortization of intangible assets): | | | |
| Products | 251,768 | 245,569 | 247,809 |
| Services | 84,739 | 76,709 | 73,822 |
| Total cost of sales | 336,507 | 322,278 | 321,631 |
| Gross profit | 865,435 | 816,710 | 728,951 |
| Operating expenses: | | | |
| Selling, general and administrative | 634,095 | 610,085 | 547,195 |
| Research and development | 98,524 | 92,626 | 79,838 |
| Amortization of intangible assets | 49,376 | 57,309 | 51,726 |
| Purchase of in-process research and development | — | — | 1,011 |
| Business transition (benefit) costs | (4,976) | 68,719 | 10,878 |
| Total operating expenses | 777,019 | 828,739 | 690,648 |
| Interest and other expense, net: | | | |
| Interest income | 2,759 | 160 | 1,472 |
| Interest expense | (17,423) | (21,056) | (70,466) |
| Other expense, net | (21,430) | (25,459) | (16,854) |
| Total interest and other expense, net | (36,094) | (46,355) | (85,848) |
| Income (loss) before income taxes | 52,322 | (58,384) | (47,545) |
| Income tax (expense) benefit | (11,915) | (5,702) | 10,392 |
| Consolidated net income (loss) | $ 40,407 | $ (64,086) | $ (37,153) |
| | | | |
| Net income (loss) per share: | | | |
| Basic | $ 0.78 | $ (1.24) | $ (0.72) |
| Diluted | $ 0.76 | $ (1.24) | $ (0.72) |
| Weighted average shares outstanding: | | | |
| Basic | 52,009 | 51,589 | 51,416 |
| Diluted | 57,359 | 51,589 | 51,416 |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**

**(in thousands)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Consolidated net income (loss) | $ 40,407 | $ (64,086) | $ (37,153) |
| Other comprehensive income (loss): | | | |
| Unrealized (loss) gain on marketable securities, net of tax | — | (13) | 13 |
| Translation adjustments, net of tax | 4,543 | (194) | 1,820 |
| Other comprehensive income (loss): | 4,543 | (207) | 1,833 |
| Total consolidated comprehensive income (loss) | $ 44,950 | $ (64,293) | $ (35,320) |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF EQUITY**

**(in thousands)**

| | Common Stock | | Additional Paid-in Capital | Accumulated Other Comprehensive Loss | Retained Earnings | Treasury Stock | | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at December 31, 2019** | 57,525 | $ 62 | $ 1,429,854 | $ (9,418) | $ 82,475 | (5,380) | $ (587,766) | $ 915,207 |
| Issuance of common stock under employee and director stock option and purchase plans | 420 | — | 6,621 | — | — | (104) | (6,116) | 505 |
| Stock-based compensation expense | — | — | 25,778 | — | — | — | — | 25,778 |
| Tax benefits related to convertible note issuance | — | — | 484 | — | — | — | — | 484 |
| Shares repurchased | — | — | — | — | — | (1,085) | (75,000) | (75,000) |
| Sale of warrants | — | — | 93,915 | — | — | — | — | 93,915 |
| Convertible note hedge | — | — | (115,592) | — | — | — | — | (115,592) |
| Equity component of convertible note issuance | — | — | 115,559 | — | — | — | — | 115,559 |
| Debt issuance costs attributable to convertible feature | — | — | (1,921) | — | — | — | — | (1,921) |
| Reclassification of redeemable equity component of senior convertible notes | — | — | (4,697) | — | — | — | — | (4,697) |
| Consolidated net loss | — | — | — | — | (37,153) | — | — | (37,153) |
| Other comprehensive income | — | — | — | 1,833 | — | — | — | 1,833 |
| **Balance at December 31, 2020** | 57,945 | $ 62 | $ 1,550,001 | $ (7,585) | $ 45,322 | (6,569) | $ (668,882) | $ 918,918 |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF EQUITY - (Continued)**

**(in thousands)**

| | Common Stock | | Additional Paid-in Capital | Accumulated Other Comprehensive Loss | Retained Earnings | Treasury Stock | | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at December 31, 2020** | 57,945 | $ 62 | $ 1,550,001 | $ (7,585) | $ 45,322 | (6,569) | $ (668,882) | $ 918,918 |
| Adjustment for modified retrospective adoption of accounting standard | — | — | (147,161) | — | 64,472 | — | — | (82,689) |
| Issuance of common stock under employee and director stock option and purchase plans | 524 | 1 | 6,217 | — | — | (131) | (8,813) | (2,595) |
| Stock-based compensation expense | — | — | 25,292 | — | — | — | — | 25,292 |
| Settlement of convertible note hedge | (1) | — | 53 | — | — | — | (53) | — |
| Equity component of convertible note settlement | 1 | — | 574 | — | — | — | — | 574 |
| Consolidated net loss | — | — | — | — | (64,086) | — | — | (64,086) |
| Other comprehensive loss | — | — | — | (207) | — | — | — | (207) |
| **Balance at December 31, 2021** | 58,469 | $ 63 | $ 1,434,976 | $ (7,792) | $ 45,708 | (6,700) | $ (677,748) | $ 795,207 |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF EQUITY - (Continued)**

**(in thousands)**

| | Common Stock | | Additional Paid-in Capital | Accumulated Other Comprehensive Loss | Retained Earnings | Treasury Stock | | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | | Shares | Amount | |
| **Balance at December 31, 2021** | 58,469 | $ 63 | $ 1,434,976 | $ (7,792) | $ 45,708 | (6,700) | $ (677,748) | $ 795,207 |
| Issuance of common stock under employee and director stock option and purchase plans | 470 | — | 5,839 | — | — | (105) | (5,702) | 137 |
| Stock-based compensation expense | — | — | 28,596 | — | — | — | — | 28,596 |
| Consolidated net income | — | — | — | — | 40,407 | — | — | 40,407 |
| Other comprehensive income | — | — | — | 4,543 | — | — | — | 4,543 |
| **Balance at December 31, 2022** | 58,939 | $ 63 | $ 1,469,411 | $ (3,249) | $ 86,115 | (6,805) | $ (683,450) | $ 868,890 |

See accompanying notes to Consolidated Financial Statements.

**NUVASIVE, INC.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

**(in thousands)**

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2022** | **2021** | **2020** |
| **Operating activities:** | | | |
| Consolidated net income (loss) | $ 40,407 | $ (64,086) | $ (37,153) |
| Adjustments to reconcile net income (loss) to net cash provided by operating activities: | | | |
| Depreciation and amortization | 147,033 | 149,524 | 140,937 |
| Purchase of in-process research and development | — | — | 1,011 |
| Deferred income taxes | (10,953) | (4,141) | (18,007) |
| Amortization of non-cash interest | 7,887 | 8,629 | 48,986 |
| Stock-based compensation | 28,596 | 25,292 | 18,145 |
| Net loss (gain) on strategic investments | 2,837 | (3,082) | 268 |
| Changes in fair value of contingent consideration | (14,712) | 53,404 | 2,327 |
| Net loss recognized on change in fair value of derivatives | — | — | 12,301 |
| Net loss from foreign currency adjustment | 18,849 | 28,709 | 4,218 |
| Reserves on current assets | (703) | 26,218 | 53,902 |
| Other non-cash adjustments | 12,608 | 11,006 | 10,331 |
| Changes in operating assets and liabilities, net of effects from acquisitions: | | | |
| Accounts receivable | (37,177) | (11,694) | 3,030 |
| Inventory | (22,649) | (37,020) | (40,765) |
| Prepaid expenses and other assets | 4,619 | (3,366) | (4,986) |
| Accounts payable and accrued liabilities | (9,870) | 533 | 8,756 |
| Accrued payroll and related expenses | (7,407) | 4,132 | (23,654) |
| Income taxes | 9,753 | (1,884) | 6,264 |
| Net cash provided by operating activities | 169,118 | 182,174 | 185,911 |
| **Investing activities:** | | | |
| Acquisition of Simplify Medical, net of cash acquired | (750) | (149,463) | — |
| Payment of contingent consideration for Simplify Medical | — | (45,850) | — |
| Acquisitions and investments | (14,318) | (500) | — |
| Proceeds from other investments | — | — | 1,143 |
| Purchases of intangible assets | (199) | (1,344) | (3,860) |
| Purchases of property and equipment | (139,228) | (111,112) | (105,729) |
| Purchases of marketable securities | — | — | (233,488) |
| Proceeds from sales of marketable securities | — | 127,023 | 60,000 |
| Proceeds from maturities of marketable securities | — | 46,000 | — |
| Other investing activities | (698) | (819) | — |
| Net cash used in investing activities | (155,193) | (136,065) | (281,934) |
| **Financing activities:** | | | |
| Proceeds from the issuance of common stock | 5,839 | 6,218 | 6,170 |
| Payment of contingent consideration | (6,839) | (3) | (7,053) |
| Purchase of treasury stock | (5,702) | (8,813) | (80,665) |
| Proceeds from issuance of convertible debt, net of issuance costs | — | — | 873,848 |
| Proceeds from sale of warrants | — | — | 93,915 |
| Purchases of convertible note hedges | — | — | (147,825) |
| Payments upon settlement of senior convertible notes | — | (649,426) | — |
| Other financing activities | (1,888) | (1,325) | (1,734) |
| Net cash (used in) provided by financing activities | (8,590) | (653,349) | 736,656 |
| Effect of exchange rate changes on cash | (2,763) | (3,538) | 3,202 |
| Increase (decrease) in cash, cash equivalents and restricted cash | 2,572 | (610,778) | 643,835 |
| Cash, cash equivalents and restricted cash at beginning of period | 247,585 | 858,363 | 214,528 |
| Cash, cash equivalents and restricted cash at end of period | $ 250,157 | $ 247,585 | $ 858,363 |
| **Supplemental cash flow information:** | | | |
| Interest paid | $ 9,072 | $ 16,294 | $ 19,914 |
| Income taxes paid | $ 12,174 | $ 11,879 | $ 1,873 |

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the Consolidated Statements of Cash Flows for the periods presented:

| | Year Ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| Cash and cash equivalents | $ 248,663 | $ 246,091 | $ 856,869 |
| Restricted cash | 1,494 | 1,494 | 1,494 |
| Total cash, cash equivalents and restricted cash reported in the Consolidated Statements of Cash Flows | $ 250,157 | $ 247,585 | $ 858,363 |

See accompanying notes to Consolidated Financial Statements

## 1. Organization and Significant Accounting Policies

*Description of Business*

NuVasive, Inc., or the Company, or NuVasive, was incorporated in Delaware on July 21, 1997, and began commercializing its products in 2001. Since its incorporation in 1997, the Company has grown from a small developer of specialty spinal implants into a global medical technology company delivering procedurally integrated solutions for spine surgery. Underlying the Company's procedurally integrated solutions for spine surgery are technologies designed to enable better clinical, financial, and operational outcomes, including:

- its surgical access instruments, including its integrated split-blade retractor system, designed to enable less-invasive surgical techniques by minimizing soft tissue disruption during spine surgery;
- its Advanced Materials Science portfolio of specialized spinal implants, designed to advance spinal fusion by enhancing the osseointegration and biomechanical properties of implant materials, including porous titanium and porous polyetheretherketone;
- its fixation systems, designed to facilitate the preservation and restoration of patient alignment, while addressing a vast array of spinal pathologies from an open or less-invasive approach across all spinal procedures;
- its cervical total disc replacement, or cTDR, technology, which complements the Company's portfolio of products and services for cervical spinal fusion surgery and is designed to offer surgeons capabilities across key performance functions—anatomic, physiologic motion, and radiologic design;
- its neuromonitoring systems, which use proprietary software-driven nerve detection and avoidance technology, and the Company's intraoperative neuromonitoring, or IONM, services and support; and
- its Pulse platform, a software ecosystem that integrates multiple hardware technologies into a single, condensed footprint in the operating room, including: radiation reduction, imaging enhancement, rod bending, navigation, IONM, and spinal alignment tools.

In addition, the Company also designs and sells expandable growing rod implant systems for the treatment of early-onset scoliosis that can be non-invasively lengthened following implantation with precise, incremental adjustments via an external remote controller using magnetic technology called MAGnetic External Control, or MAGEC. This technology is also the basis for the Company's Precice line of products which is designed to support complex orthopedic reconstruction, such as trauma and limb length discrepancy. Precice is an intramedullary device that, once implanted, utilizes the MAGEC technology to non-invasively lengthen the femur and tibia.

*Proposed Merger with Globus Medical*

On February 8, 2023, the Company entered into an Agreement and Plan of Merger, or the Merger Agreement, with Globus Medical, Inc., or Globus Medical. Refer to Note 12, Subsequent Events, in the Notes to Consolidated Financial Statements included in this Annual Report for further background on the combination.

*Impact of COVID-19 and Global Macroeconomic Conditions on the Company's Business*

The COVID-19 pandemic significantly impacted the Company's business and results of operations in fiscal years 2020, 2021 and 2022. At the height of the COVID-19 pandemic, governments implemented extraordinary measures to slow the spread of the virus, which included the mandatory closure of businesses, restrictions on travel and gatherings, quarantine and physical distancing requirements, and vaccine mandates. In addition, many government agencies in conjunction with hospitals and healthcare systems deferred, reduced, or suspended elective surgical procedures due to COVID-19. While certain spine surgeries are deemed essential and certain surgeries, like in cases of trauma, cannot be delayed, the Company experienced a significant reduction in procedural volumes as hospital systems and/or patients deferred spine surgery procedures. While many countries have removed or reduced the restrictions initially implemented in response to COVID-19, the pandemic continues to evolve, and its impact on the Company's business will depend on several factors that are highly uncertain and unpredictable, including, the efficacy and adoption of vaccines and treatments, future resurgences of the virus and its variants, the imposition of government lockdowns, quarantine and physical distancing requirements, patient capacity at hospitals and healthcare systems, the duration and severity of healthcare worker shortages, and the willingness and ability of patients to seek care and treatment due to safety concerns or financial hardship.

Additionally, the COVID-19 pandemic and general macroeconomic conditions have led to disruptions in the global supply chain. While the Company has largely been able to mitigate the impact, it has experienced challenges associated with material and component availability for certain product lines, longer shipping and delivery times for raw materials and components, constrained logistics capacity related to the movement of products, availability of skilled labor and increased costs of raw materials, components, labor, and freight and courier services. The Company's net sales and profitability from its foreign operations have also been negatively affected by the unfavorable foreign currency exchange impact of the strengthened U.S. dollar against a number of currencies.

*Basis of Presentation and Principles of Consolidation*

The accompanying Consolidated Financial Statements include the accounts of the Company and its majority-owned or controlled subsidiaries, collectively referred to as either NuVasive or the Company. The Company translates the financial statements of its foreign subsidiaries using end-of-period exchange rates for assets and liabilities and average exchange rates during each reporting period for results of operations. When there is a portion of equity in an acquired subsidiary not attributable, directly or indirectly, to the respective parent entity, the Company records the fair value of the non-controlling interest at the acquisition date and classifies the amounts attributable to non-controlling interest separately in equity in the Company's Consolidated Financial Statements. Any subsequent changes in a parent's ownership interest while the parent retains its controlling financial interest in its subsidiary are accounted for as equity transactions. All significant intercompany balances and transactions have been eliminated in consolidation.

*Use of Estimates*

To prepare financial statements in conformity with generally accepted accounting principles, or U.S. GAAP, accepted in the U.S., management must make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. These estimates and assumptions involve judgments with respect to numerous factors that are difficult to predict. As a result, actual amounts could be materially different from these estimates.

*Recent Accounting Pronouncements Not Yet Adopted*

In October 2021, the Financial Accounting Standards Board, or FASB, issued Accounting Standards Update, or ASU, No. 2021-08, Business Combinations (Topic 805), Accounting for Contract Assets and Contract Liabilities from Contracts with Customers, which requires an entity (acquirer) to recognize and measure contract assets and liabilities acquired in a business combination in accordance with Topic 606, Revenue from Contracts with Customers. This update is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years, with early adoption permitted. The amendments should be applied prospectively to business combinations occurring on or after the effective date of the amendments. The Company will adopt ASU 2021-08 on January 1, 2023, using a prospective transition method, and does not expect a material impact to its Consolidated Financial Statements.

In June 2022, the FASB issued ASU No. 2022-03, Fair Value Measurement (Topic 820), Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions, which clarifies that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. This guidance introduces new disclosure requirements to provide investors with information about contractual restrictions, including the nature and remaining duration of such restrictions. This update is effective for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years, with early adoption permitted. The amendments should be applied prospectively with any adjustments from the adoption of the amendments recognized in earnings and disclosed on the date of adoption. The Company is currently evaluating the impact the standard will have on its Consolidated Financial Statements.

*Recently Adopted Accounting Standards*

In August 2020, the FASB issued ASU No. 2020-06, Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40), or ASU 2020-06, which simplifies the accounting for convertible instruments. The guidance removes certain accounting models that separate the embedded conversion features from the host contract for convertible instruments. The guidance also modifies how certain convertible instruments, that may be settled in cash or shares, impact the calculation of diluted earnings per share. ASU 2020-06 allows for a modified or full retrospective method of transition. This update is effective for fiscal years beginning after December 15, 2021, and interim periods within those fiscal years, and early adoption is permitted. The Company early adopted ASU 2020-06 on January 1, 2021, electing the modified transition method that allows for a cumulative-effect adjustment in the period of adoption, and did not restate prior periods. As a result of the adoption, the Company increased its senior convertible debt liabilities and retained earnings on January 1, 2021 by $115.4 million and $64.5 million, respectively, and decreased its deferred tax liabilities and additional paid-in capital by $28.0 million and $147.2 million, respectively. As a result of the adoption of ASU 2020-06, diluted loss per share decreased by $0.54 for the year ended December 31, 2021. See Note 5, Indebtedness, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on the adoption of ASU 2020-06.

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting, which provides temporary optional expedients and exceptions for applying U.S. GAAP on contracts, hedging relationships and other transactions subject to modification due to the expected discontinuance of the London Interbank Offered Rate, or LIBOR, and other reference rate reform changes to ease the potential accounting and financial burdens related to the expected transition in market reference rates. This guidance permits entities to elect not to apply certain modification accounting requirements to contracts affected by reference rate transition, if certain criteria are met. An entity that makes this election would not be required to remeasure modified contracts at the modification date or reassess a previous accounting determination. The guidance was effective upon issuance on March 12, 2020, and can generally be applied through December 31, 2022. On December 21, 2022, the FASB issued ASU 2022-06, Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848, which extends the period of time entities can utilize the reference rate reform relief guidance under ASU 2020-04 from December 31, 2022 to December 31, 2024. The adoption did not have a material impact on the Company's Consolidated Financial Statements.

*Revenue Recognition*

In accordance with Accounting Standards Codification 606 Revenue from Contracts with Customers, or ASC 606, the Company recognizes revenue upon the transfer of goods or services to a customer at an amount that reflects the expected consideration to be received in exchange for those goods or services. The principles in ASC 606 are applied using the following five steps: (i) identify the contract with a customer; (ii) identify the performance obligation(s) in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligation(s) in the contract; and (v) recognize revenue when (or as) the Company satisfies its performance obligation(s). Specifically, revenue from the sale of implants, fixation products and disposables is generally recognized at an amount that reflects the expected consideration upon notice that the Company's products have been used in a surgical procedure or upon shipment to a third-party customer assuming control of the products. Revenue from IONM services is recognized in the period the service is performed for the amount of consideration expected to be received. Revenue from the sale of surgical instrument sets is generally recognized upon receipt of a purchase order and the subsequent shipment to a customer who assumes control. In certain cases, the Company does offer the ability for customers to lease surgical instrumentation primarily on a non-sales type basis. Revenue from the sale or lease of capital equipment is recognized when the Company transfers control to the customer, which is generally at the point when acceptance occurs that indicates customer acknowledgment of delivery or installation, depending on the terms of the arrangement. Selling and leasing of surgical instrument sets and capital equipment represents an immaterial amount of the Company's total net sales in all periods presented. Revenue associated with products holding rights of return or trade-in are recognized when the Company concludes there is not a risk of significant revenue reversal in future periods for the expected consideration in the transaction. Costs incurred by the Company associated with sales contracts with customers are deferred over the performance obligation period and recognized in the same period as the related revenue, with the exception of contracts that complete within one year or less, in which case the associated costs are expensed as incurred.

*Accounts Receivable and Related Valuation Accounts*

Accounts receivable in the accompanying Consolidated Balance Sheets are presented net of allowances for credit losses. The Company maintains an allowance for credit losses resulting from the inability of its customers, including hospitals, ambulatory surgery centers, and distributors, to make required payments. The allowance for credit losses is calculated quarterly, and is estimated on a region-by-region basis considering a number of factors including age of account balances, collection history, historical account write-offs, third party credit reports, identified trends, current economic conditions, and supportable forecasted economic expectations. The allowance is adjusted on a specific identification basis for certain accounts as well as pooling of accounts with similar characteristics. An increase in the provision for credit losses may be required when the financial condition of the Company's customers or its collection experience deteriorates. The Company has a diverse customer base and no single customer represented greater than ten percent of net sales or accounts receivable. An increase to the allowance for credit losses results in a corresponding charge to selling, general and administrative expenses. Historically, the Company's reserves have been adequate to cover credit losses.

The Company's exposure to credit losses may increase if its customers are adversely affected by changes in healthcare laws, coverage and reimbursement, macroeconomic pressures or uncertainty associated with local or global economic recessions, disruption associated with the current COVID-19 pandemic, or other customer-specific factors. It is possible that there could be a significant adverse impact from potential adjustments to the carrying amount of trade receivables as customers' cash flows are impacted by their response to the COVID-19 pandemic and the deferral of elective surgical procedures and other macroeconomic challenges.

The following table summarizes the changes in the allowance for credit losses:

| *(in thousands)* | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Allowance for credit losses at January 1 | $ 10,928 | $ 9,646 |
| Current-period provision for expected losses | 748 | 2,165 |
| Write-offs charged against the allowance | (196) | (743) |
| Recoveries of amounts previously written off | 31 | 42 |
| Changes resulting from foreign currency fluctuations | (107) | (182) |
| Allowance for credit losses at end of period | $ 11,404 | $ 10,928 |

In addition, the Company establishes a liability for estimated sales returns and a reserve for price adjustments that are recorded as a reduction to net sales. The liability and reserve are maintained to account for the future product returns and price adjustments of products sold in the current period.

*Concentration of Credit Risk and Significant Customers*

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist primarily of cash and cash equivalents and accounts receivable. The Company limits its exposure to credit loss by placing its cash and investments with high credit quality financial institutions. Additionally, the Company has established guidelines regarding diversification of its investments and their maturities, which are designed to maintain principal and maximize liquidity. The Company has a diverse customer base and no single customer represented greater than ten percent of sales or accounts receivable for any of the periods presented.

*Fair Value of Financial Instruments*

The Company's financial instruments consist principally of cash and cash equivalents, restricted investments, derivatives, contingent consideration liabilities, accounts receivable, accounts payable, accrued expenses, and Senior Convertible Notes.

The Company measures certain assets and liabilities in accordance with authoritative guidance which requires fair value measurements to be classified and disclosed in one of the following three categories:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain assets or liabilities within the fair value hierarchy. The Company did not have any transfers of assets and liabilities between the levels of the fair value measurement hierarchy during the years presented.

*Cash and Cash Equivalents*

The Company considers all highly liquid investments that are readily convertible into cash and have an original maturity of three months or less at the time of purchase to be cash equivalents.

*Inventory, net*

Net inventory as of December 31, 2022 consisted of $326.1 million of finished goods, $5.8 million of work in progress and $6.7 million of raw materials. Net inventory as of December 31, 2021 consisted of $301.3 million of finished goods, $8.1 million of work in progress and $6.4 million of raw materials.

Finished goods primarily consists of specialized implants, fixation products and disposables and are stated at the lower of cost or net realizable value determined by utilizing a standard cost method, which includes capitalized variances, which approximates the weighted average cost. Work in progress and raw materials represent the underlying material, and labor for work in progress, that ultimately yield finished goods upon completion and are recorded at the lower of cost or net realizable value. The Company reviews the components of its inventory on a periodic basis for excess and obsolescence and adjusts inventory to its net realizable value as necessary.

The Company records an inventory reserve for estimated excess and obsolete inventory based upon historical turnover and assumptions about future demand for its products and market conditions, such as product life cycles and timing of the introduction and development of new or enhanced products. The Company's allograft products have shelf lives ranging from two to five years and are subject to demand fluctuations based on the availability and demand for alternative products. The Company's inventory, which consists primarily of disposables, specialized implants and fixation products, is at risk of obsolescence following the introduction and development of new or enhanced products. One of the Company's strategic objectives is to continue to rapidly develop and commercialize new products and product enhancements which increases the risk that products will become obsolete prior to the end of their anticipated useful life. The Company's estimates and assumptions for excess and obsolete inventory are reviewed and updated on a quarterly basis. The estimates the Company uses for demand are also used for near-term capacity planning and inventory purchasing and are consistent with its net sales forecasts. Increases in the reserve for excess and obsolete inventory result in a corresponding charge to cost of sales.

For the year ended December 31, 2022 and 2021, the Company recorded a reserve for excess and obsolete inventory of $0.7 million and $25.6 million, respectively. The decrease is attributable to updates to the Company's estimates and assumptions about future product demand and product life cycles which have been affected by multiple factors, including the COVID-19 pandemic and general market conditions. Additionally, during the third quarter of 2021, the Company made a determination to withdraw certain products manufactured by its NuVasive Specialized Orthopedic, or NSO, subsidiary from the market and discontinue sales of the products. As a result, the Company recorded a charge of $14.2 million.

*Goodwill and Intangible Assets*

The Company's goodwill represents the excess of the cost over the fair value of net assets acquired from its business combinations. The determination of the value of goodwill and intangible assets arising from business combinations and asset acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the fair value of the net tangible and intangible assets acquired, including capitalized in-process research and development, or IPR&D. Intangible assets acquired in a business combination that are used for IPR&D activities are considered indefinite lived until the completion or abandonment of the associated research and development efforts. Upon reaching the end of the relevant research and development project, the Company will amortize the acquired IPR&D over its estimated useful life or expense the acquired in-process research and development should the research and development project be unsuccessful with no future alternative use.

Goodwill and IPR&D are not amortized; however, they are assessed for impairment using fair value measurement techniques on an annual basis or more frequently if facts and circumstance warrant such a review. The goodwill or IPR&D are considered to be impaired if the Company determines that the carrying value of the reporting unit or IPR&D exceeds its respective fair value.

The Company performs its goodwill impairment analysis at the reporting unit level, which aligns with the Company's reporting structure and availability of discrete financial information. The Company performs its annual impairment analysis by either comparing a reporting unit's estimated fair value to its carrying amount or doing a qualitative assessment of a reporting unit's fair value from the last quantitative assessment to determine if there is potential impairment. The Company may do a qualitative assessment when the results of the previous quantitative test indicated the reporting unit's estimated fair value was significantly in excess of the carrying value of its net assets and it does not believe there have been significant changes in the reporting unit's operations that would significantly decrease its estimated fair value or significantly increase its net assets. If a quantitative assessment is performed the evaluation includes management estimates of cash flow projections based on internal future projections and/or use of a market approach by looking at market values of comparable companies. Key assumptions for these projections include net sales growth, future gross and operating margin growth, and its weighted cost of capital and terminal growth rates. The net sales and margin growth is based on increased sales of new and existing products as the Company maintains investments in research and development. Additional assumed value creators may include increased efficiencies from capital spending. The resulting cash flows are discounted using a weighted average cost of capital. Operating mechanisms and requirements to ensure that growth and efficiency assumptions will ultimately be realized are also considered in the evaluation, including timing and probability of regulatory approvals for Company products to be commercialized. The Company's market capitalization is also considered as a part of its analysis.

The Company's annual evaluation for impairment of goodwill consists of one reporting unit. In accordance with the Company's policy, the Company completed its most recent annual evaluation for impairment as of October 1, 2022 using the qualitative assessment and determined that no impairment existed. In addition, no indicators of impairment were noted through December 31, 2022 and consequently, no impairment charge was recorded during the year.

Intangible assets with a finite life, such as acquired technology, customer relationships, manufacturing know-how, licensed technology, supply agreements and certain trade names and trademarks, are amortized on a straight-line basis over their estimated useful life, ranging from 2 to 17 years. In determining the useful lives of intangible assets, the Company considers the expected use of the assets and the effects of obsolescence, demand, competition, anticipated technological advances, changes in surgical techniques, market influences and other economic factors. For technology based intangible assets, the Company considers the expected life cycles of products which incorporate the corresponding technology. Trademarks and trade names that are related to products are assigned lives consistent with the period in which the products bearing each brand are expected to be sold.

The Company evaluates its intangible assets with finite lives for indications of impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors that could trigger an impairment review include significant under-performance relative to expected historical or projected future operating results, significant changes in the manner of the Company's use of the acquired assets or the strategy for the Company's overall business or significant negative industry or economic trends. If this evaluation indicates that the value of the intangible asset may be impaired, the Company makes an assessment of the recoverability of the net carrying value of the asset over its remaining useful life. If this assessment indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the technology over the remaining amortization period, the Company reduces the net carrying value of the related intangible asset to fair value and may adjust the remaining amortization period.

See Note 2, Balance Sheet Details, in the Notes to Consolidated Financial Statements included in this Annual Report for further disclosure on goodwill and intangible assets.

*Property and Equipment*

Property and equipment are carried at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, ranging from 2 to 20 years. The Company depreciates leasehold improvements over their estimated useful lives or the term of the applicable lease, whichever is shorter. Leased property meeting certain financing lease criteria is capitalized under property and equipment, and the net present value of the related lease payments is recorded as a liability. Amortization of assets under financing leases is recorded using the straight-line method over the shorter of the estimated useful lives or the lease terms. Maintenance and repairs are expensed as incurred.

The Company reviews property, plant and equipment for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. An impairment loss would be recognized when estimated future undiscounted cash flows relating to the asset are less than its carrying amount. An impairment loss is measured as the amount by which the carrying amount of an asset exceeds its fair value.

*Income Taxes*

The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Tax law and rate changes are reflected in income in the period such changes are enacted. The Company includes interest and penalties related to income taxes, including unrecognized tax benefits, within income tax expense.

The Company's income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations. The Company recognizes liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. While the Company believes it has appropriate support for the positions taken on its tax returns, the Company regularly assesses the potential outcomes of examinations by tax authorities in determining the adequacy of its provision for income taxes. The Company continually assesses the likelihood and amount of potential revisions and adjusts the income tax provision, income taxes payable and deferred taxes in the period in which the facts that give rise to a revision become known.

Significant judgment is required in determining the Company's provision for income taxes, deferred tax assets and liabilities and the valuation allowance recorded against deferred tax assets. Deferred tax assets and liabilities are determined using the enacted tax rates in effect for the years in which those tax assets and liabilities are expected to be realized. A valuation allowance is established when it is more likely than not the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis and includes a review of all available positive and negative evidence. Factors reviewed include projections of pre-tax book income for the foreseeable future, determination of cumulative pre-tax book income after permanent differences, earnings history, and reliability of forecasting.

Based on the Company's review, it concluded that it was more likely than not that it would be able to realize the future benefits of its domestic and foreign deferred tax assets, with the exceptions of California, Australia, Brazil, Colombia, Malta and Mexico. This conclusion was based on historical and projected operating performance, as well as the Company's expectation that its operations will generate sufficient taxable income in future periods to realize the tax benefits associated with the deferred tax assets well within the statutory carryover periods, other than those related to the jurisdictions cited above. Due to low state apportionment and the carryforward of net operating losses and sizeable research credits in California, the Company concluded that it is not more likely than not that it will be able to utilize its California deferred tax assets. Therefore, the Company has maintained a full valuation allowance on its California deferred tax assets as of December 31, 2022. Due to a history of losses and or the lack of certain sources of future taxable income, the Company has established a full valuation allowance against deferred tax assets in Australia, Brazil, Colombia, Malta and Mexico as of December 31, 2022.

The Company will continue to assess the need for a valuation allowance on its deferred tax assets by evaluating both positive and negative evidence that may exist. Any adjustment to the net deferred tax asset valuation allowance would be recorded in the statement of operations for the period that the adjustment is determined to be required.

See Note 9, Incomes Taxes, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on income taxes.

*Loss Contingencies*

An estimated loss contingency is accrued and disclosed in the Company's financial statements if it is probable or disclosed if it is reasonably possible that a liability has been incurred and the amount of the loss can be reasonably estimated. Based on the Company's assessment, it has adequately accrued an amount for contingent liabilities currently in existence. The Company does not accrue amounts for liabilities that it does not believe are probable and only discloses those matters it considers material to its overall financial position. In most cases, significant judgment is required to estimate the amount and timing of a loss to be recorded.

The Company is involved in a number of legal actions arising in the normal course of business. The outcomes of these legal actions are not within the Company's complete control and may not be known for prolonged periods of time. In some actions, the claimants seek damages as well as other relief, including injunctions barring the sale of products that are the subject of the lawsuit, that could require significant expenditures or result in lost net sales. Litigation is inherently unpredictable, and unfavorable resolutions could occur. As a result, assessing contingencies is highly subjective and requires judgment about future events. The amount of ultimate loss may exceed the Company's current accruals, and it is possible that its cash flows or results of operations could be materially affected in any particular period by the unfavorable resolution of one or more of these contingencies.

See Note 11, Contingences, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on legal proceedings and investigations.

*Other Comprehensive Income (Loss)*

Other comprehensive income (loss) is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Other comprehensive income (loss) includes net of tax, unrealized gains or losses on the Company's marketable debt securities and foreign currency translation adjustments. The accumulated other comprehensive loss was $3.2 million, $7.8 million, and $7.6 million at December 31, 2022, 2021, and 2020, respectively.

*Research and Development*

Research and development costs are expensed as incurred. To the extent the Company purchases research and development assets with a future alternative use the Company will capitalize and amortize the assets over its useful life.

*Product Shipment Costs*

Product shipment costs, included in selling, general and administrative expense in the accompanying Consolidated Statements of Operations, were $37.3 million, $30.9 million, and $27.4 million for the years ended December 31, 2022, 2021, and 2020, respectively. The majority of the Company's shipping costs are associated with providing instrument sets to hospitals for use in individual surgical procedures. Amounts billed to customers for shipping and handling of products are reflected in net sales and are not material for any period presented.

*Business Transition (Benefit) Costs*

The Company incurs certain costs related to acquisition, integration and business transition activities, which include severance, relocation, consulting, leasehold exit costs, third-party merger and acquisition costs, contingent consideration fair value adjustments and other costs directly associated with such activities. Contingent consideration is accrued based on the fair value of the expected payment, and such accruals are subject to increase or decrease based on the assessment of the likelihood that the contingent milestones will be achieved resulting in payment. If an accrual for contingent consideration decreases during a particular period, it results in a reduction of costs during such period, which the Company records as a benefit.

During the year ended December 31, 2022, the Company recorded a benefit of $(5.0) million related to acquisition, integration and business transition activities, which included $(14.7) million of fair value adjustments on contingent consideration liabilities associated with the Company's 2021, 2018, 2017 and 2016 acquisitions.

During the year ended December 31, 2021, the Company recorded $68.7 million of costs related to acquisition, integration and business transition activities, which included $53.4 million of fair value adjustments on contingent consideration liabilities associated with the Company's 2021, 2018, 2017 and 2016 acquisitions as well as $4.0 million of costs associated with the 2021 acquisition of Simplify Medical.

During the year ended December 31, 2020, the Company recorded $10.9 million of costs related to acquisition, integration and business transition activities, which included $2.3 million of fair value adjustments on contingent consideration liabilities associated with the Company's 2018, 2017 and 2016 acquisitions.

*Stock-based Compensation*

Stock-based compensation expense for equity-classified awards, principally related to restricted stock units, or RSUs, and performance restricted stock units, or PRSUs, is measured at the grant date based on the estimated fair value of the award. The fair value of equity instruments that are expected to vest is recognized and amortized over the requisite service period. The Company has granted awards with up to five year graded or cliff vesting terms (in each case, with service through the date of vesting being required). No exercise price or other monetary payment is required for receipt of the shares issued in settlement of the respective award; instead, consideration is furnished in the form of the participant's service to the Company.

The fair value of RSUs including PRSUs with pre-defined performance criteria is based on the stock price on the date of grant whereas the expense for PRSUs with pre-defined performance criteria is adjusted with the probability of achievement of such performance criteria at each period end.

Stock-based compensation expense is adjusted from the grant date to exclude expense for awards that are expected to be forfeited. The forfeiture estimate is adjusted as necessary through the vesting date so that full compensation cost is recognized only for awards that vest. The Company assesses the reasonableness of the estimated forfeiture rate at least annually, with any change to be made on a cumulative basis in the period the estimated forfeiture rates change. The Company considered its historical experience of pre-vesting forfeitures on awards by each homogenous group of employees as the basis to arrive at its estimated annual pre-vesting forfeiture rates.

The Company estimates the fair value of stock options issued under its equity incentive plans and shares issued to employees under its employee stock purchase plan, or ESPP, using a Black-Scholes option-pricing model on the date of grant. The Black-Scholes option-pricing model incorporates various assumptions including expected volatility, expected term and risk-free interest rates. The expected volatility is based on the historical volatility of the Company's common stock over the most recent period commensurate with the estimated expected term of the Company's stock options and ESPP offering period which is derived from historical experience. The risk-free interest rate for periods within the contractual life of the option is based on the U.S. Treasury yield in effect at the time of grant. The Company has never declared or paid dividends and has no plans to do so in the foreseeable future.

See Note 8, Stock-Based Compensation, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on stock-based compensation.

*Net Income (Loss) Per Share*

The Company computes basic net income per share using the weighted-average number of common shares outstanding during the period. Diluted net income per share assumes the conversion, exercise or issuance of all potential common stock equivalents, unless the effect of inclusion would be anti-dilutive. For purposes of this calculation, common stock equivalents include the Company's stock options, unvested RSUs, PRSUs (including those with performance and market conditions), warrants, and the shares to be issued upon the conversion of the Senior Convertible Notes. The contingently issuable shares are included in basic net income per share as of the date that all necessary conditions have been satisfied and are included in the denominator for dilutive calculation for the entire period if such shares would be issuable as of the end of the reporting period assuming the end of the reporting period was the end of the contingency period. Since the Company incurred a net loss in each of the years ended December 31, 2021 and 2020, basic and diluted net loss per share were the same.

The following table sets forth the computation of basic and diluted consolidated net income (loss) per share:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands, except per share data)* | **2022** | **2021** | **2020** |
| Numerator: | | | |
| Net income (loss) | $ 40,407 | $ (64,086) | $ (37,153) |
| Interest and debt issuance costs on the 1.00% Senior Convertible Notes due 2023, net of tax | $ — | $ — | $ — |
| Interest and debt issuance costs on the 0.375% Senior Convertible Notes due 2025, net of tax | 3,283 | — | — |
| Net income (loss) for diluted | $ 43,690 | $ (64,086) | $ (37,153) |
| Denominator for basic and diluted net income (loss) per share: | | | |
| Weighted average common shares outstanding for basic | 52,009 | 51,589 | 51,416 |
| Dilutive potential common stock outstanding: | | | |
| ESPP | 3 | — | — |
| RSUs and PRSUs | 523 | — | — |
| 1.00% Senior Convertible Notes due 2023 | — | — | — |
| 0.375% Senior Convertible Notes due 2025 | 4,824 | — | — |
| Weighted average common shares outstanding for diluted | 57,359 | 51,589 | 51,416 |
| Basic net income (loss) per share | $ 0.78 | $ (1.24) | $ (0.72) |
| Diluted net income (loss) per share | $ 0.76 | $ (1.24) | $ (0.72) |

The following weighted outstanding common stock equivalents were not included in the calculation of net income (loss) per diluted share because their effects were anti-dilutive:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | 2020 |
| Stock options, ESPP, RSUs and PRSUs | 262 | 1,022 | 1,095 |
| Warrants | 10,169 | 17,665 | 21,034 |
| Senior Convertible Notes | 5,345 | 10,169 | 21,034 |
| Total | 15,776 | 28,856 | 43,163 |

## 2. Balance Sheet Details

*Property and Equipment, net*

Property and equipment, net, consisted of the following:

| | | December 31, | |
|---|---|---|---|
| *(in thousands, except years)* | Useful Life | 2022 | 2021 |
| Instrument sets | 4 | $ 556,584 | $ 472,247 |
| Machinery and equipment | 3 to 7 | 81,156 | 73,086 |
| Computer equipment and software | 2 to 10 | 208,477 | 188,960 |
| Leasehold improvements | 2 to 15 | 40,098 | 38,987 |
| Furniture and fixtures | 3 to 7 | 8,772 | 8,941 |
| Building and improvements | 5 to 20 | 23,349 | 22,681 |
| Land | — | 1,277 | 1,277 |
| | | 919,713 | 806,179 |
| Less: accumulated depreciation and amortization | | (573,203) | (502,515) |
| | | $ 346,510 | $ 303,664 |

Property and equipment mainly consisted of instrument sets, which are made available to surgeons and hospitals that purchase implants, biologics and disposables for use in individual surgical procedures.

Depreciation expense was $90.8 million, $87.5 million, and $85.9 million for the years ended December 31, 2022, 2021 and 2020, respectively. The Company depreciates leasehold improvements over their estimated useful lives or the term of the applicable lease, whichever is shorter.

Capitalized software costs includes both internally developed and purchased computer software. At December 31, 2022 and 2021, the Company had $76.0 million and $67.5 million in unamortized capitalized software costs, respectively. Amortization expense related to capitalized software costs was $12.3 million, $12.2 million and $10.4 million for the years ended December 31, 2022, 2021 and 2020, respectively.

*Goodwill and Intangible Assets*

Intangible assets as of December 31, 2022 consisted of the following:

| *(in thousands, except years)* | Weighted-Average Amortization Period (in years) | Gross Amount | Accumulated Amortization | Intangible Assets, net |
|---|---|---|---|---|
| Intangible assets subject to amortization: | | | | |
| Developed technology | 11 | $ 366,521 | $ (241,119) | $ 125,402 |
| Patents | 10 | 56,719 | (37,420) | 19,299 |
| Manufacturing know-how and trade secrets | 12 | 21,364 | (21,364) | — |
| Trade name and trademarks | 9 | 24,967 | (22,124) | 2,843 |
| Customer relationships | 9 | 156,681 | (122,436) | 34,245 |
| Total intangible assets subject to amortization | 10 | $ 626,252 | $ (444,463) | $ 181,789 |
| In-process research and development | | $ 2,500 | $ — | $ 2,500 |
| Total intangible assets, net | | $ 628,752 | $ (444,463) | $ 184,289 |

Intangible assets as of December 31, 2021 consisted of the following:

| *(in thousands, except years)* | Weighted-Average Amortization Period (in years) | Gross Amount | Accumulated Amortization | Intangible Assets, net |
|---|---|---|---|---|
| Intangible assets subject to amortization: | | | | |
| Developed technology | 11 | $ 374,457 | $ (209,283) | $ 165,174 |
| Patents | 10 | 57,783 | (31,903) | 25,880 |
| Manufacturing know-how and trade secrets | 12 | 21,412 | (21,387) | 25 |
| Trade name and trademarks | 9 | 25,163 | (19,621) | 5,542 |
| Customer relationships | 9 | 156,208 | (110,154) | 46,054 |
| Total intangible assets, net | 10 | $ 635,023 | $ (392,348) | $ 242,675 |

Total expense related to the amortization of intangible assets which is recorded in either cost of sales or operating expenses in the Consolidated Statements of Operations depending on the functional nature of the intangible, was $52.6 million, $60.6 million and $55.0 million for the years ended December 31, 2022, 2021 and 2020, respectively.

The changes to goodwill are comprised of the following:

| *(in thousands)* | |
|---|---|
| Gross goodwill | $ 641,767 |
| Accumulated impairment loss | (8,300) |
| **December 31, 2021** | 633,467 |
| | |
| Changes to gross goodwill: | |
| Increases recorded related to business combinations | 10,550 |
| Changes resulting from foreign currency fluctuations | (4,354) |
| | 6,196 |
| | |
| Gross goodwill | 647,963 |
| Accumulated impairment loss | (8,300) |
| **December 31, 2022** | $ 639,663 |

Total future amortization expense related to intangible assets subject to amortization at December 31, 2022 is set forth in the table below:

| *(in thousands)* | |
|---|---|
| 2023 | $ 27,096 |
| 2024 | 20,846 |
| 2025 | 19,927 |
| 2026 | 15,132 |
| 2027 | 12,374 |
| Thereafter through 2038 | 86,414 |
| Total future amortization expense | $ 181,789 |

*Accounts Payable and Accrued Liabilities*

Accounts payable and accrued liabilities consisted of the following:

| | December 31, | |
|---|---|---|
| *(in thousands)* | 2022 | 2021 |
| Accrued expenses | $ 70,487 | $ 69,054 |
| Accounts payable | 20,323 | 16,192 |
| Distributor commissions payable | 11,187 | 12,546 |
| Other taxes payable | 6,998 | 6,764 |
| Litigation liability | 1,931 | 1,744 |
| Debt interest payable | 937 | 937 |
| Royalties payable | 5,337 | 5,297 |
| Other | 3,133 | 3,080 |
| Accounts payable and accrued liabilities | $ 120,333 | $ 115,614 |

## 3. Business Combinations

The Company recognizes the assets acquired, liabilities assumed, and any non-controlling interest at fair value at the date of acquisition. Certain acquisitions contain contingent consideration arrangements that require the Company to assess the acquisition date fair value of the contingent consideration liabilities. Such liabilities are recorded as part of the purchase price allocation of the acquisition, with subsequent fair value adjustments to the contingent consideration recorded in the Consolidated Statements of Operations. See Note 4, Financial Instruments and Fair Value Measurements, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on contingent consideration liabilities.

*Acquisition of Simplify Medical Pty Limited*

On February 24, 2021, the Company, through its indirect wholly-owned subsidiary, NuVasive (AUST/NZ) Pty Limited, acquired all of the stock interest in Simplify Medical, a developer of cervical disc technology for cervical total disc replacement procedures. Simplify Medical now operates as a wholly-owned subsidiary of the Company. The Company agreed to make an upfront payment of $150.0 million, subject to customary purchase price adjustments, plus additional future payments contingent upon milestones related to regulatory approval and net sales from products incorporating the Simplify Medical cervical disc technology. In April 2021, the Simplify Cervical Disc received approval from the FDA for two-level cervical total disc replacement, resulting in the Company's payment of $45.8 million for the achievement of the regulatory milestone. Additional milestone payments, which are uncapped and contingent upon net sales from products incorporating the Simplify Medical cervical disc technology, will become payable in calendar years 2023, 2024 and 2025. The first net sales milestone payment, based on 2022 net sales, is expected be paid in the first quarter of 2023. In connection with the closing, the Company paid $151.0 million, which included additional amounts for customary purchase price adjustments, using available cash on hand. During the third quarter of 2022, the Company made an additional payment of $0.8 million relating to a holdback associated with the acquisition.

The allocation of the purchase price to the assets acquired and liabilities assumed based on their fair values is as follows:

| *(in thousands)* | |
|---|---|
| Cash paid for purchase | $ 151,026 |
| | |
| Cash | 1,563 |
| Accounts receivable | 203 |
| Inventory | 6,710 |
| Other current assets | 568 |
| Property, plant and equipment, net | 381 |
| Definite-lived intangible assets: | |
| Developed technology | 141,700 |
| Patents | 19,000 |
| Trade names | 3,500 |
| Goodwill | 81,125 |
| Other assets | 7 |
| Contingent consideration liabilities | (103,400) |
| Accounts payable, accrued expenses and other | (331) |
| | $ 151,026 |

Goodwill recognized in this transaction is not deductible for tax purposes. Goodwill largely consists of expected net sales synergies resulting from the combination of product portfolios, use of the Company's existing commercial infrastructure to expand sales of Simplify Medical's products, and the assembled workforce. The intangible assets acquired are being amortized on a straight-line basis over useful lives of seventeen years, ten years, and fifteen years for developed technology-based intangible assets, patent-related intangible assets, and trade name related intangible assets, respectively. The estimated fair values of the intangible assets acquired were primarily determined using the income approach based on significant inputs that were not observable.

In connection with the acquisition, contingent consideration liabilities of $103.4 million were recorded for the potential regulatory and net sales-based milestone payments. The fair value of the contingent liability related to the regulatory milestone payment was determined using the probability approach based on the probability of the approval being achieved as of various periods. The fair value of the contingent liability relating to the net sales-based milestone payments was determined using a Monte Carlo simulation model based on forecasted net sales, volatility factors associated with those forecasted net sales and discount rates. Changes in fair value of the contingent liabilities over the measurement period will be recorded in operating expenses in the Consolidated Statements of Operations. See Note 4, Financial Instruments and Fair Value Measurements, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on contingent consideration liabilities.

Acquisition costs of $4.0 million were included as business transition costs in the Consolidated Statements of Operations. The Company's results of operations for the year ended December 31, 2021 include the operating results of Simplify Medical since the date of acquisition, within the Consolidated Statements of Operations. Net sales of acquired products represent an immaterial amount of the Company's total net sales for the year ended December 31, 2021.

The following table presents the unaudited pro forma results for the years ended December 31, 2021 and December 31, 2020. The unaudited pro forma financial information combines the results of operations of the Company and Simplify Medical as though the companies had been combined as of January 1, 2020. The unaudited pro forma information is presented for informational purposes only and is not indicative of the results of operations that would have been achieved if the acquisition had taken place at such time. The unaudited pro forma results presented include non-recurring adjustments directly attributable to the business combination. The adjustments relating to amortization charges for acquired intangible assets were $1.7 million and $9.1 million for the years ended December 31, 2021 and December 31, 2020, respectively. Adjustments for increased fair value of acquired inventory were $0.4 million for the year ended December 31, 2021. The year ended December 31, 2020 also includes an adjustment of $17.5 million for acquisition related expenses. All periods presented include related tax effects to pre-tax loss. Simplify Medical's net sales represent an immaterial amount of the combined net sales for the years ended December 31, 2021 and December 31, 2020. The pre-acquisition accounting policies of Simplify Medical were materially similar to the Company.

| (unaudited)<br>*(in thousands, except per share amounts)* | Years Ended December 31, 2021 | 2020 |
|---|---|---|
| Net loss | $ (67,630) | $ (69,764) |
| Net loss per share: | | |
| Basic | $ (1.31) | $ (1.36) |
| Diluted | $ (1.31) | $ (1.36) |

The Company has completed an acquisition that was not considered material, individually or collectively, to the overall Consolidated Financial Statements during the year ended December 31, 2022. This acquisitions has been included in the Consolidated Financial Statements from the date of the acquisition.

*Variable Interest Entities*

The Company provides IONM services through various subsidiaries, which conduct business as NuVasive Clinical Services. In providing IONM services to surgeons and healthcare facilities across the U.S., the Company maintains contractual relationships with several physician practices, or PCs. In accordance with authoritative guidance, the Company has determined that the PCs are variable interest entities and therefore, the accompanying Consolidated Financial Statements include the accounts of the PCs from the date of acquisition. During the periods presented, the results of the PCs were immaterial to the Company's financial statements. The creditors of the PCs have claims only to the assets of the PCs, which are not material, and the assets of the PCs are not available to the Company.

## 4. Financial Instruments and Fair Value Measurements

*Foreign Currency and Derivative Financial Instruments*

The Company translates the financial statements of its foreign subsidiaries using end-of-period exchange rates for assets and liabilities, and average exchange rates during each reporting period for results of operations.

Some of the Company's reporting entities conduct a portion of their business in currencies other than the entity's functional currency. These transactions give rise to receivables and payables that are denominated in currencies other than the entity's functional currency. The value of these receivables and payables is subject to changes in currency exchange rates from the point at which the transactions are originated until the settlement in cash. Both realized and unrealized gains and losses in the value of these receivables and payables are included in the determination of net income. Net currency exchange losses, which include gains and losses from derivative instruments, were $18.8 million, $28.7 million and $4.2 million for the years ended December 31, 2022, 2021 and 2020, respectively, and are included in other expense, net in the Consolidated Statements of Operations.

To manage foreign currency exposure risks, the Company uses derivatives for activities in entities that have short-term intercompany receivables and payables denominated in a currency other than the entity's functional currency. The fair value is based on a quoted market price (Level 1). As of December 31, 2022, 2021, and 2020 a notional principal amount of $15.0 million, $12.2 million, and $14.0 million, respectively, was outstanding to hedge currency risk relative to foreign receivables and payables. Derivative instrument net gains (losses) on the Company's forward exchange contracts were $2.2 million, $2.0 million, and $(1.0) million for the years ended December 31, 2022, 2021 and 2020, respectively, and are included in other expense, net in the Consolidated Statements of Operations. The fair value of the forward contract exchange derivative instrument asset (liability) was $(0.2) million and de minimis as December 31, 2022 and December 31, 2021, respectively. The derivative instruments are recorded in other current assets or other current liabilities in the Consolidated Balance Sheets commensurate with the nature of the instrument at period end.

*Fair Value Measurements*

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain assets or liabilities within the fair value hierarchy. The Company did not have any transfers of assets and liabilities between the levels of the fair value measurement hierarchy during the periods presented.

The fair values of the Company's assets and liabilities, including cash equivalents, marketable debt and equity securities, restricted investments, derivatives, and contingent consideration are measured at fair value on a recurring basis. The fair value of the securities classified as cash equivalents and marketable equity securities are based on quoted market prices in active markets (Level 1). As of December 31, 2022, the Company held investments in securities classified as cash equivalents and marketable equity securities. Unrealized (losses) gains for marketable equity securities was $(1.5) million for the year ended December 31, 2022, and included in other expense, net in the Consolidated Statement of Operations. As of December 31, 2021, the Company held investments in securities classified as cash equivalents. During the periods presented, the Company did not hold any such investments that were in a significant unrealized loss position and no impairment charges were recorded on such investments. Realized and unrealized gains and losses and interest income related to marketable debt securities were immaterial during all periods presented. The Company's assets that are measured at fair value were based on the following fair value categories:

| *(in thousands)* | Total | Quoted Price in Active Market (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| **December 31, 2022:** | | | | |
| Cash equivalents: | | | | |
| Money market funds | $ 176,344 | $ 176,344 | $ — | $ — |
| Other assets: | | | | |
| Marketable equity securities | 3,483 | 3,483 | — | — |
| Total cash equivalents | $ 179,827 | $ 179,827 | $ — | $ — |
| | | | | |
| **December 31, 2021:** | | | | |
| Cash equivalents: | | | | |
| Money market funds | $ 179,451 | $ 179,451 | $ — | $ — |
| Total cash equivalents | $ 179,451 | $ 179,451 | $ — | $ — |

The carrying amounts of certain financial instruments such as cash and cash equivalents, accounts receivable, prepaid expenses, other current assets, accounts payable, accrued expenses, and other current liabilities as of December 31, 2022 and December 31, 2021 approximate their related fair values due to the short-term maturities of these instruments.

The fair value of certain financial instruments was measured and classified within Level 1 of the fair value hierarchy based on quoted prices. Certain financial instruments classified within Level 2 of the fair value hierarchy include the types of instruments that trade in markets that are not considered to be active, but are valued based on quoted market prices, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency.

*Fair Value of Senior Convertible Notes*

The fair value, based on a quoted market price (Level 1), of the Company's outstanding $450.0 million principal amount of Senior Convertible Notes due 2023 at December 31, 2022 and December 31, 2021 was approximately $441.6 million and $450.6 million, respectively. The fair value, based on a quoted market price (Level 1), of the Company's outstanding $450.0 million principal amount of Senior Convertible Notes due 2025 at December 31, 2022 and December 31, 2021 was approximately $394.9 million and $433.5 million, respectively. See Note 5, Indebtedness, in the Notes to Consolidated Financial Statements included in this Annual Report for further discussion on the carrying value of the senior convertible notes.

*Contingent Consideration Liabilities*

The fair value of contingent consideration liabilities assumed in business combinations is recorded as part of the purchase price consideration of the acquisition, and is determined using a discounted cash flow model, probability model or Monte Carlo simulation model. The significant inputs of such models are not observable in the market, such as certain financial metric growth rates, volatility rates, projections associated with the applicable milestone, the interest rate, and the related probabilities and payment structure in the contingent consideration arrangement. Fair value adjustments to contingent consideration liabilities are recorded through operating expenses in the Consolidated Statements of Operations. Contingent consideration arrangements assumed by an asset purchase will be measured and accrued when such contingency is resolved.

The recurring Level 3 fair value measurements of contingent consideration liabilities associated with commercial sales milestones include the following significant unobservable inputs:

| | December 31, | |
|---|---|---|
| | 2022 | 2021 |
| Valuation Techniques | Discounted cash flow, probability, Monte Carlo | Discounted cash flow, Monte Carlo |
| Discount Rate Range | 6.7% - 7.9% | 2.7% - 5.8% |
| Weighted Average Discount Rate | 7.0% | 3.8% |
| Expected Years | 2023 - 2028 | 2021 - 2027 |

Contingent consideration liabilities were $130.6 million and $147.8 million as of December 31, 2022 and December 31, 2021, respectively, and were recorded in the Consolidated Balance Sheets commensurate with the respective payment terms. The following table sets forth the changes in the estimated fair value of the Company's liabilities measured on a recurring basis using significant unobservable inputs (Level 3):

| *(in thousands)* | 2022 | 2021 |
|---|---|---|
| Beginning balance at January 1 | $ 147,810 | $ 37,041 |
| Contingent consideration liability recorded upon acquisition | 5,550 | 103,400 |
| Change in fair value measurement | (14,712) | 53,404 |
| Contingent consideration paid or settled | (8,037) | (46,006) |
| Changes resulting from foreign currency fluctuations | 4 | (29) |
| Balance at end of period at December 31 | $ 130,615 | $ 147,810 |

During the first quarter of 2021, the Company recorded $103.4 million in contingent consideration liabilities as part of the Simplify Medical acquisition, of which $42.8 million and $60.6 million relate to the regulatory approval and net sales milestones, respectively. In the second quarter of 2021, the Simplify Cervical Disc received approval from the FDA for two-level cervical total disc replacement which resulted in the payment of $45.8 million for the achievement of the regulatory milestone. As a result of the milestone achievement, the Company recorded a $3.0 million increase in the fair value of the contingent consideration liability, which has been recorded within business transition (benefit) costs in the Company's Consolidated Statements of Operations in the year ended December 31, 2021. For the years ended December 31, 2022 and 2021, the Company (decreased) increased the contingent consideration liability by $(12.2) million, and $47.9 million, respectively, as a result of updates to the Company's forecasted net sales assumptions and significant unobservable inputs. The remaining contingent consideration liabilities for the Simplify Medical acquisition totaled $96.3 million and $108.5 million as of December 31, 2022 and 2021, respectively. The first net sales milestone payment, based on 2022 net sales, is expected to be paid in the first quarter of 2023. Changes in fair value measurement of the contingent consideration liabilities are recorded in the Consolidated Statements of Operations within the business transition (benefit) costs line item.

*Non-financial assets and liabilities measured on a nonrecurring basis*

Certain non-financial assets and liabilities are measured at fair value, usually with Level 3 inputs including the discounted cash flow method or cost method, on a nonrecurring basis in accordance with authoritative guidance. These include items such as non-financial assets and liabilities initially measured at fair value in a business combination and non-financial long-lived assets measured at fair value for an impairment assessment. In general, non-financial assets, including goodwill, intangible assets and property and equipment, are measured at fair value when there is an indication of impairment and are recorded at fair value only when any impairment is recognized. The carrying values of the Company's financing lease obligations approximated their estimated fair value as of December 31, 2022 and December 31, 2021.

The (losses) and gains on strategic investments were $(1.3) million, $3.1 million and $(1.5) million for the years ended December 31, 2022, 2021 and 2020, respectively, and are included in other expense, net in the Consolidated Statements of Operations.

## 5. Indebtedness

The carrying values of the Company's Senior Convertible Notes are as follows:

| *(in thousands)* | December 31, 2022 | December 31, 2021 |
|---|---|---|
| 1.00% Senior Convertible Notes due 2023: | | |
| Principal amount | $ 450,000 | $ 450,000 |
| Unamortized debt issuance costs | (1,944) | (6,543) |
| | 448,056 | 443,457 |
| 0.375% Senior Convertible Notes due 2025: | | |
| Principal amount | 450,000 | 450,000 |
| Unamortized debt issuance costs | (5,798) | (8,473) |
| | 444,202 | 441,527 |
| Total Senior Convertible Notes | $ 892,258 | $ 884,984 |
| | | |
| Less: Current portion | $ (448,056) | $ — |
| Long-term Senior Convertible Notes | $ 444,202 | $ 884,984 |

| (in thousands) | Year Ended December 31. 2022 | 2021 | 2020 |
|---|---|---|---|
| Interest expense: | | | |
| Contractual coupon interest | $ 6,188 | $ 9,234 | $ 18,656 |
| Amortization of debt issuance costs | 7,274 | 8,018 | 7,175 |
| Accretion of the debt discount | — | — | 40,865 |
| Total interest expense recognized on Senior Convertible Notes | $ 13,462 | $ 17,252 | $ 66,696 |
| | | | |
| Effective interest rates: | | | |
| Senior Convertible Notes due 2021[1] | — % | 2.9 % | 5.8 % |
| Senior Convertible Notes due 2023[2] | 2.0 % | 2.0 % | 6.8 % |
| Senior Convertible Notes due 2025[2] | 1.0 % | 1.0 % | 4.9 % |

[1] Senior Convertible Notes due 2021 settled in full on March 15, 2021.

[2] Interest on Senior Convertible Notes due 2023 and 2025 began accruing upon issuance and is payable semi-annually.

*1.00% Senior Convertible Notes due 2023*

In June 2020, the Company issued $450.0 million principal amount of unsecured Senior Convertible Notes with a stated interest rate of 1.00% and a maturity date of June 1, 2023, or the 2023 Notes. The net proceeds from the offering of the 2023 Notes, after deducting initial purchasers' discounts and costs directly related to the offering, were approximately $436.7 million. The 2023 Notes were initially required to be settled in cash as the Company did not have sufficient reserved shares. On September 10, 2020, the Company held a Special Meeting of Stockholders and received stockholder approval to amend the Company's Restated Certificate of Incorporation to increase the number of shares of its common stock authorized for issuance from 120,000,000 shares to 150,000,000 shares. As a result of the increase in the number of shares of the Company's common stock authorized for issuance, as of September 10, 2020 and as of each of years ended December 31, 2020, 2021 and 2022, respectively, the Company had sufficient reserved shares. The 2023 Notes permit the Company to settle conversions of the 2023 Notes in cash, stock, or a combination thereof, solely at the Company's discretion, and the Company has elected to settle all conversions in cash. Accordingly, the Company will satisfy the principal amount outstanding and any note conversion value over the principal amount with cash. The initial conversion rate of the 2023 Notes is 11.8778 shares per $1,000 principal amount, which is equivalent to a conversion price of approximately $84.19 per share, subject to adjustments. In addition, following certain corporate events that occur prior to the maturity date, the Company will increase the conversion rate for a holder who elects to convert its 2023 Notes in connection with such a corporate event in certain circumstances. The Company also entered into transactions for a convertible notes hedge and warrants concurrently with the issuance of the 2023 Notes.

At the time of issuance, the cash conversion feature of the 2023 Notes required bifurcation from the 2023 Notes and was initially accounted for as a derivative liability (the "Embedded Conversion Derivative"), which was included in long-term liabilities in the Company's Consolidated Balance Sheets. The fair value of the 2023 Notes Embedded Conversion Derivative was $57.2 million, and was recorded as the original debt discount for purposes of accounting for the debt component of the 2023 Notes. On September 10, 2020, as a result of the increase in the number of shares of the Company's common stock authorized for issuance, the Company had sufficient reserved shares to settle conversions of the 2023 Notes in cash, stock, or a combination thereof, and in accordance with authoritative literature, the Embedded Conversion Derivative was marked to fair value and reclassified to stockholders' equity, which resulted in recognizing $37.3 million in additional paid-in-capital during 2020. The original issue discount was recognized as interest expense using the effective interest method.

As of January 1, 2021, the Company early adopted ASU No. 2020-06, Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40), or ASU 2020-06, which removed the requirement of separating the embedded conversion feature classified within stockholders' equity from the 2023 Notes. Accordingly, the Company reclassified the unamortized debt discount from its additional paid-in capital to its senior convertible notes within long-term liabilities in the Consolidated Balance Sheet. The impact of the adoption of ASU 2020-06 as of January 1, 2021 resulted in an increase in senior convertible notes and retained earnings of $46.8 million and $7.9 million, respectively, and a decrease in deferred tax liabilities and additional paid-in capital by $11.2 million and $43.5 million, respectively.

Prior to February 1, 2023, holders could have converted their 2023 Notes only under the following conditions: (a) during any calendar quarter commencing after the calendar quarter ending on September 30, 2020 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (b) during the five business day period after any five consecutive trading day period, or the measurement period, in which the trading price of the 2023 Notes per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on such trading day; or (c) upon the occurrence of specified corporate events, as defined in the 2023 Notes. On or after February 1, 2023, until the close of business on the second scheduled trading day immediately preceding June 1, 2023, holders may convert their 2023 Notes at any time, regardless of the foregoing conditions.

The Company may not redeem the 2023 Notes prior to the maturity date and no principal payments are due on the 2023 Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the 2023 Notes do not contain any financial covenants and do not restrict the Company from conducting significant restructurings, paying dividends or issuing or repurchasing any of its other securities. As of December 31, 2022, the 2023 Notes are included within current liabilities in the Company's Consolidated Balance Sheet.

*2023 Hedge*

In connection with the sale of the 2023 Notes, the Company entered into privately negotiated call option transactions with certain dealers, which included affiliates of certain of the initial purchasers of the 2023 Notes and other financial institutions, or the 2023 Counterparties, entitling the Company to purchase up to 5,345,010 shares of the Company's common stock at an initial stock price of $84.19 per share, each of which is subject to adjustment. The 2023 Hedge was initially required to be settled in cash as the Company did not have sufficient reserved shares with respect to the 2023 Notes. As a result, the 2023 Hedge was accounted for as a derivative asset, which was included in long-term assets in the Company's Consolidated Balance Sheets. The cost of the 2023 Hedge was $69.5 million. On September 10, 2020, as a result of the increase in the number of shares of the Company's common stock authorized for issuance, the Company had sufficient reserved shares to settle the 2023 Notes, which therefore allows for the 2023 Hedge to be settled in cash, stock, or a combination thereof. In accordance with authoritative literature, the Convertible Note Hedge Derivative was marked to fair value and reclassified to stockholders' equity, which resulted in recognizing a reduction of $37.3 million in additional paid-in-capital during 2020. The 2023 Hedge will expire on the second scheduled trading day immediately preceding June 1, 2023. The 2023 Hedge is expected to reduce the potential equity dilution upon conversion of the 2023 Notes if the daily volume-weighted average price per share of the Company's common stock exceeds the strike price of the 2023 Hedge. An assumed exercise of the 2023 Hedge by the Company is considered anti-dilutive since the effect of the inclusion would always be anti-dilutive with respect to the calculation of diluted earnings per share.

*2023 Warrants*

In connection with the sale of the 2023 Notes, the Company sold warrants to the 2023 Counterparties, or the 2023 Warrants, to acquire up to 5,345,010 shares of the Company's common stock. The 2023 Warrants initially limited the amount of shares the Company was required to reserve for issuance under the 2023 Warrants to an aggregate of 3,093,500 shares of the Company's common stock, subject to adjustment upon the Company having a sufficient amount of authorized and unissued shares which are not reserved for other transactions. As a result of the Company receiving stockholder approval to increase the number of shares of the Company's common stock authorized for issuance on September 10, 2020, the Company subsequently entered into amendment agreements with each of the 2023 Counterparties to increase the number of authorized shares of the Company's common stock required to be reserved under the 2023 Warrants to the aggregate amount of 6,948,512 shares. The 2023 Warrants will expire on various dates from September 2023 through November 2023 and may be settled in net shares or cash, subject to certain conditions. It is the Company's current intent and policy to settle all conversions in shares of the Company's common stock. The Company received $46.8 million in cash proceeds from the sale of the 2023 Warrants, which was recorded in additional paid-in-capital. The 2023 Warrants could have a dilutive effect on the Company's earnings per share to the extent that the price of the Company's common stock during a given measurement period exceeds the strike price of the 2023 Warrants, which is $104.84 per share. The Company uses the treasury share method for assumed conversion of its 2023 Warrants to compute the weighted average common shares outstanding for diluted earnings per share.

*0.375% Senior Convertible Notes due 2025*

In March 2020, the Company issued $450.0 million principal amount of unsecured Senior Convertible Notes with a stated interest rate of 0.375% and a maturity date of March 15, 2025, or the 2025 Notes. The net proceeds from the offering of the 2025 Notes, after deducting initial purchasers' discounts and costs directly related to the offering, were approximately $437.0 million. The 2025 Notes may be settled in cash, stock, or a combination thereof, solely at the Company's discretion. It is the Company's current intent and policy to settle all conversions through combination settlement, which involves satisfying the principal amount outstanding with cash and any note conversion value over the principal amount in shares of the Company's common stock. The initial conversion rate of the 2025 Notes is 10.7198 shares per $1,000 principal amount, which is equivalent to a conversion price of approximately $93.29 per share, subject to adjustments. In addition, following certain corporate events that occur prior to the maturity date or if the Company issues a notice of redemption, the Company will increase the conversion rate for a holder who elects to convert its 2025 Notes in connection with such a corporate event or in connection with such redemption in certain circumstances. The Company also entered into transactions for a convertible notes hedge, or the 2025 Hedge, and warrants, or the 2025 Warrants, concurrently with the issuance of the 2025 Notes.

At the time of issuance and in accordance with Accounting Standards Codification Topic 470, the embedded conversion feature of the 2025 Notes required bifurcation from the notes and was initially accounted for as an equity instrument classified to stockholders' equity, which resulted in recognizing $78.3 million in additional paid-in-capital during 2020. As of January 1, 2021, the Company early adopted ASU 2020-06, which removed the requirement of separating the embedded conversion feature classified within stockholders' equity from the 2025 Notes. Accordingly, the Company reclassified the unamortized debt discount and corresponding debt issuance costs from its additional paid-in capital to its senior convertible notes within long-term liabilities in the Consolidated Balance Sheet. The impact of the adoption of ASU 2020-06 as of January 1, 2021 resulted in an increase in senior convertible notes and retained earnings of $64.7 million and $8.8 million, respectively, and a decrease in deferred tax liabilities and additional paid-in capital by $15.9 million and $57.6 million, respectively.

Prior to September 15, 2024, holders may convert their 2025 Notes only under the following conditions: (a) during any calendar quarter commencing after the calendar quarter ending on June 30, 2020 (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day; (b) during the five business day period after any five consecutive trading day period, or the measurement period, in which the trading price of the 2025 Notes per $1,000 principal amount of notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on such trading day; (c) if the Company calls any or all of the 2025 Notes for redemption, at any time prior to the close of business on the second scheduled trading day preceding the redemption date; or (d) upon the occurrence of specified corporate events, as defined in the 2025 Notes. On or after September 15, 2024, until the close of business on the second scheduled trading day immediately preceding March 15, 2025, holders may convert their 2025 Notes at any time, regardless of the foregoing conditions.

The Company may not redeem the 2025 Notes prior to March 20, 2023. The Company may redeem the 2025 Notes, at its option, in whole or in part, on or after March 20, 2023 until the close of business on the business day immediately preceding September 15, 2024, if the last reported sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company delivers written notice of a redemption. The redemption price will be equal to 100% of the principal amount of such 2025 Notes to be redeemed plus accrued and unpaid interest to, but excluding, the redemption date. No principal payments are due on the 2025 Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the 2025 Notes do not contain any financial covenants and do not restrict the Company from conducting significant restructurings, paying dividends or issuing or repurchasing any of its other securities. As of December 31, 2022, the Company is unaware of any current events or market conditions that would allow holders to convert the 2025 Notes.

*2025 Hedge*

In connection with the sale of the 2025 Notes, the Company entered into privately negotiated call option transactions with certain dealers, which included affiliates of certain of the initial purchasers of the 2025 Notes and other financial institutions, or the 2025 Counterparties, entitling the Company to purchase up to 4,823,910 shares of the Company's common stock at an initial stock price of $93.29 per share, each of which is subject to adjustment. The cost of the 2025 Hedge was $78.3 million and accounted for as an equity instrument by recognizing $78.3 million in additional paid-in-capital during 2020. The 2025 Hedge will expire on the second scheduled trading day immediately preceding March 15, 2025. The 2025 Hedge is expected to reduce the potential equity dilution upon conversion of the 2025 Notes if the daily volume-weighted average price per share of the Company's common stock exceeds the strike price of the 2025 Hedge. An assumed exercise of the 2025 Hedge by the Company is considered anti-dilutive since the effect of the inclusion would always be anti-dilutive with respect to the calculation of diluted earnings per share.

*2025 Warrants*

The Company sold warrants to the 2025 Counterparties to acquire up to 4,823,910 shares of the Company's common stock. The 2025 Warrants will expire on various dates from June 2025 through October 2025 and may be settled in net shares or cash, subject to certain conditions. It is the Company's current intent and policy to settle all conversions in shares of the Company's common stock. The Company received $47.1 million in cash proceeds from the sale of the 2025 Warrants, which was recorded in additional paid-in-capital. The 2025 Warrants could have a dilutive effect on the Company's earnings per share to the extent that the price of the Company's common stock during a given measurement period exceeds the strike price of the 2025 Warrants, which is $127.84 per share. The Company uses the treasury share method for assumed conversion of its 2025 Warrants to compute the weighted average common shares outstanding for diluted earnings per share.

2.25% *Senior Convertible Notes due 2021*

In March 2016, the Company issued $650.0 million principal amount of unsecured Senior Convertible Notes with a stated interest rate of 2.25% and a maturity date of March 15, 2021, or the 2021 Notes. Interest on the 2021 Notes began accruing upon issuance and was payable semi-annually. On March 15, 2021 the Company settled in full the 2021 Notes at their scheduled maturity as further discussed below.

The net proceeds from the offering of the 2021 Notes, after deducting initial purchasers' discounts and costs directly related to the offering, were approximately $634.1 million. Prior to September 14, 2020, the 2021 Notes provided for settlement in cash, stock, or a combination thereof, solely at the Company's discretion. As of September 14, 2020, combination settlement was deemed to have been elected by the Company. The initial conversion rate of the 2021 Notes was 16.7158 shares per $1,000 principal amount, which was equivalent to a conversion price of approximately $59.82 per share, subject to adjustments. The Company also entered into transactions for a convertible notes hedge, or the 2021 Hedge, and warrants, or the 2021 Warrants, concurrently with the issuance of the 2021 Notes.

At the time of issuance and in accordance with Accounting Standards Codification Topic 470, the embedded conversion feature of the 2021 Notes required bifurcation from the notes and was accounted for as an equity instrument classified to stockholders' equity, which resulted in recognizing $84.8 million in additional paid-in-capital during 2016. As of January 1, 2021, the Company early adopted ASU 2020-06, which removed the requirement of separating the embedded conversion feature classified within stockholders' equity from the 2021 Notes. Accordingly, the Company reclassified the unamortized debt discount and corresponding debt issuance costs from its additional paid-in capital to its senior convertible notes within current liabilities in the Consolidated Balance Sheet. The impact of the adoption of ASU 2020-06 as of January 1, 2021, resulted in an increase in senior convertible notes and retained earnings of $3.9 million and $47.8 million, respectively, and a decrease in deferred tax liabilities and additional paid-in capital by $0.9 million and $46.1 million, respectively.

Prior to September 15, 2020, holders could have converted their 2021 Notes only under the following conditions: (a) during any calendar quarter beginning June 30, 2016, if the reported sale price of the Company's common stock for at least 20 days out of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter was greater than 130% of the conversion price on each applicable trading day; (b) during the five business day period in which the trading price of the 2021 Notes fell below 98% of the product of (i) the last reported sale price of the Company's common stock and (ii) the conversion rate on that date; and (c) upon the occurrence of specified corporate events, as defined in the 2021 Notes. From September 15, 2020 and until the close of business on the second scheduled trading day immediately preceding March 15, 2021, holders could have converted their 2021 Notes at any time (regardless of the foregoing circumstances). The Company had the ability to redeem the 2021 Notes, at its option, in whole or in part beginning on March 20, 2019 until the close of business on the business day immediately preceding September 15, 2020 if the last reported sale price of the Company's common stock had been at least 130% of the conversion price then in effect for at least 20 trading days during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company delivers written notice of a redemption. No principal payments were due on the 2021 Notes prior to maturity. Other than restrictions relating to certain fundamental changes and consolidations, mergers or asset sales and customary anti-dilution adjustments, the 2021 Notes did not contain any financial covenants and did not restrict the Company from paying dividends or issuing or repurchasing any of its other securities.

*2021 Hedge*

In connection with the offering of the 2021 Notes, the Company entered into the hedge transaction with the initial purchasers of the 2021 Notes and/or their affiliates, or the 2021 Counterparties, entitling the Company to purchase up to 10,865,270 shares of the Company's common stock at an initial stock price of $59.82 per share, each of which was subject to adjustment. The cost of the 2021 Hedge was $111.2 million and accounted for as an equity instrument by recognizing $111.2 million in additional paid-in-capital during 2016. The 2021 Hedge expired on March 15, 2021 and was put in place to reduce the potential equity dilution upon conversion of the 2021 Notes if the daily volume-weighted average price per share of the Company's common stock exceeded the strike price of the 2021 Hedge. Prior to its expiration, an assumed exercise of the 2021 Hedge by the Company was considered anti-dilutive since the effect of the inclusion would always be anti-dilutive with respect to the calculation of diluted earnings per share.

*2021 Warrants*

The Company sold warrants to the 2021 Counterparties to acquire up to 10,865,270 shares of the Company's common stock. The 2021 Warrants expired on various dates from June 2021 through December 2021 and could have only been settled in cash or net shares. As of December 31, 2021, all of the warrants expired unexercised. The Company received $44.9 million in cash proceeds from the sale of the 2021 Warrants, which was recorded in additional paid-in-capital. Prior to their expiration and termination, the 2021 Warrants could have had a dilutive effect on the Company's earnings per share to the extent that the price of the Company's common stock during a given measurement period exceeded the strike price of the 2021 Warrants, which was $80.00 per share. The Company used the treasury share method for assumed conversion of the 2021 Warrants to compute the weighted average common shares outstanding for diluted earnings per share.

*Settlement of the 2021 Notes and 2021 Hedge*

On March 15, 2021, the 2021 Notes reached maturity and the Company settled in full the 2021 Notes. The Company received conversion notices from the holders of 1.4% of the 2021 Notes, representing $9.1 million outstanding principal amount thereof, or the Conversions. The Company paid an aggregate of $649.4 million in cash for the settlement of the 2021 Notes, which included $640.9 million in satisfaction of the outstanding principal of the 2021 Notes and $8.5 million in cash in connection with the settlement of the Conversions. Additionally, in satisfaction of the Conversions, and pursuant to combination settlement, the Company issued 837 shares of common stock in the aggregate to the holders who elected to convert their outstanding notes. The Company funded the repayment of the outstanding principal amount of the 2021 Notes, accrued interest thereon, and the cash component of the Conversions using available cash on hand.

In connection with the settlement of the 2021 Notes, the Company exercised its rights under the convertible note hedge transactions with the 2021 Counterparties on March 15, 2021 and received 842 shares of its own common stock.

*Revolving Senior Credit Facility*

In February 2020, the Company entered into a Second Amended and Restated Credit Agreement, or the 2020 Credit Agreement, for a revolving senior credit facility, or the 2020 Facility, which replaced the previous Amended and Restated Credit Agreement the Company had entered into in April 2017. The 2020 Credit Agreement was amended in May 2020 to, among other things, provide additional flexibility in determining the financial covenant leverage ratios for the second and third fiscal quarters of 2020 and to adjust certain margin and benchmark rates used to determine interest under the 2020 Facility. The 2020 Credit Agreement provides for secured revolving loans, multicurrency loan options and letters of credit in an aggregate amount of up to $550.0 million. The 2020 Credit Agreement also contains an expansion feature, which allows the Company to increase the aggregate principal amount of the 2020 Facility provided the Company remains in compliance with the underlying financial covenants on a pro forma basis, including but not limited to, compliance with the consolidated interest coverage ratio and certain consolidated leverage ratios.

The 2020 Facility matures in February 2025 (subject to an earlier springing maturity date), and includes a sublimit of $50.0 million for standby letters of credit, a sublimit of $250.0 million for multicurrency borrowings, and a sublimit of $5.0 million for swingline loans. All assets of the Company and its material domestic subsidiaries continue to be pledged as collateral under the 2020 Facility (subject to customary exceptions) pursuant to the terms set forth in the Second Amended and Restated Security and Pledge Agreement executed in favor of the administrative agent by the Company. Each of the Company's material domestic subsidiaries guarantee the 2020 Facility. In connection with the 2020 Facility, the Company incurred issuance costs which will be amortized over the term of the 2020 Facility. The Company did not carry any outstanding revolving loans under the 2020 Facility as of December 31, 2022 and 2021.

Any borrowings under the 2020 Facility are intended to be used by the Company to provide financing for working capital and other general corporate purposes, including potential mergers and acquisitions and to refinance indebtedness. Borrowings under the 2020 Facility bear interest, at the Company's option, at a rate equal to an applicable margin plus: (a) the applicable Eurocurrency Rate (as defined in the 2020 Credit Agreement), or (b) a base rate determined by reference to the highest of (1) the federal funds effective rate plus 0.50%, (2) the Bank of America prime rate, and (3) the Eurocurrency Rate plus 1.00%. The margin for the 2020 Facility ranges, based on the Company's consolidated total net leverage ratio, from 0.50% to 1.25% in the case of base rate loans and from 1.50% to 2.25% in the case of Eurocurrency Rate loans. The 2020 Facility includes an unused line fee ranging, based on the Company's consolidated total net leverage ratio, from 0.35% to 0.50% per annum on the revolving commitment.

The 2020 Credit Agreement contains affirmative, negative, permitted acquisition and financial covenants, and events of default customary for financings of this type. The financial covenants require the Company to maintain a consolidated interest coverage ratio and certain consolidated leverage ratios, which are measured on a quarterly basis. The 2020 Facility grants the lenders preferred first priority liens and security interests in capital stock, intercompany debt and all of the present and future property and assets of the Company and each guarantor. The Company is currently in compliance with the 2020 Credit Agreement covenants.

## 6. Commitments

*Leases*

At the inception of a contractual arrangement, the Company determines whether the contract contains a lease by assessing whether there is an identified asset and whether the contract conveys the right to control the use of the identified asset in exchange for consideration over a period of time. If both criteria are met, the Company records the associated lease liability and corresponding right-of-use asset upon commencement of the lease using a discount rate based on a credit-adjusted secured borrowing rate commensurate with the term of the lease.

The Company records lease liabilities within current liabilities or long-term liabilities based upon the length of time associated with the lease payments. The Company records its operating lease right-of-use assets as long-term assets. Right-of-use assets for financing leases are recorded within property and equipment, net in the Consolidated Balance Sheets. Leases with an initial term of 12 months or less are not recorded in the Consolidated Balance Sheets. The Company recognizes lease expense on a straight-line basis over the lease term. In connection with certain operating leases, the Company has security deposits recorded and maintained as restricted cash and investments totaling $1.5 million as of December 31, 2022 and December 31, 2021.

The Company leases office and storage facilities and equipment under various operating and financing lease agreements. The initial terms of these leases range from 1 to 17 years and generally provide for periodic rent increases, and renewal and termination options. The Company's lease agreements do not contain any material variable lease payments, residual value guarantees or material restrictive covenants.

Certain leases require the Company to pay taxes, insurance and maintenance. Payments for the transfer of goods or services such as common area maintenance and utilities represent non-lease components. The Company elected the package of practical expedients and therefore does not separate non-lease components from lease components.

The table below summarizes the Company's right-of-use assets and lease liabilities:

| *(in thousands, except years and rates)* | December 31, 2022 | December 31, 2021 |
|---|---|---|
| **Assets** | | |
| Operating | $ 95,112 | $ 102,987 |
| Financing | 1,893 | 2,276 |
| Total leased assets | $ 97,005 | $ 105,263 |
| | | |
| **Liabilities** | | |
| Current: | | |
| Operating | $ 10,019 | $ 9,867 |
| Financing | 1,084 | 1,546 |
| Long-term: | | |
| Operating | 103,806 | 111,592 |
| Financing | 872 | 885 |
| Total lease liabilities | $ 115,781 | $ 123,890 |
| | | |
| Supplemental non-cash information: | | |
| Weighted-average remaining lease term (years) - operating leases | 10.9 | 11.6 |
| Weighted-average remaining lease term (years) - finance leases | 2.6 | 2.1 |
| Weighted-average discount rate - operating leases | 5.3 % | 5.3 % |
| Weighted-average discount rate - finance leases | 3.7 % | 4.7 % |

The table below summarizes the Company's lease costs, cash payments, and operating lease liabilities arising from obtaining right-of-use assets under its operating and financing lease obligations:

| *(in thousands)* | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Lease expense: | | |
| Operating lease expense | $ 16,277 | $ 16,088 |
| Finance lease expense: | | |
| Amortization of right-of-use assets | 1,698 | 1,374 |
| Interest expense on lease liabilities | 100 | 112 |
| Total lease expense | $ 18,075 | $ 17,574 |
| | | |
| Consolidated Statements of Cash Flows information: | | |
| Operating cash flows used for operating leases | $ 16,599 | $ 15,394 |
| Operating cash flows used for financing leases | 100 | 102 |
| Financing cash flows used for financing leases | 1,889 | 1,325 |
| Total cash paid for amounts included in the measurement of lease liabilities | $ 18,588 | $ 16,821 |
| | | |
| Supplemental non-cash information: | | |
| Operating lease liabilities arising from obtaining right-of-use assets | $ 3,495 | $ 11,871 |

The Company's future minimum annual lease payments under operating and financing leases at December 31, 2022 are as follows:

| *(in thousands)* | Financing Leases | Operating Leases |
|---|---|---|
| 2023 | $ 1,139 | $ 15,817 |
| 2024 | 599 | 14,496 |
| 2025 | 254 | 12,983 |
| 2026 | 48 | 12,688 |
| 2027 | 4 | 11,932 |
| Thereafter | — | 85,155 |
| Total minimum lease payments | $ 2,044 | $ 153,071 |
| Less: amount representing interest | (88) | (39,246) |
| Present value of obligations under leases | 1,956 | 113,825 |
| Less: current portion | (1,084) | (10,019) |
| Long-term lease obligations | $ 872 | $ 103,806 |

*Licensing and Purchasing Agreements*

The Company has both minimum and contingent obligations to make payments of up to $67.1 million if specified future events occur or conditions are met as provided in certain net sales based, consulting, purchase and/or product development agreements. Not all of the respective agreements specify milestone payment timelines. Certain payments will be made in a combination of cash and the Company's common shares as provided in the agreements. Any payments in satisfaction of these obligations are considered either a research and development expense or a cost of sales depending on the nature of the arrangement and are recognized ratably as and if milestones are achieved.

*Executive Severance Plans*

The Company has employment contracts with key executives and maintains severance plans that provide for the payment of severance and other benefits if such executives are terminated for reasons other than cause, as defined in those agreements and plans. Certain agreements call for payments that are based on historical compensation, and accordingly, the amount of the contractual commitment will change over time commensurate with the executive's applicable earnings. At December 31, 2022, future commitments for such key executives were approximately $16.2 million. In certain circumstances, the agreements call for the acceleration of equity vesting. Those figures are not reflected in the above information.

## 7. Stockholders' Equity

In October 2017, the Company announced that the Board of Directors approved a share repurchase program authorizing the repurchase of up to $100 million of the Company's common stock over a three-year period. In February 2020, the Company announced that the Board of Directors approved an increase in the share repurchase authorization from $100 million to $150 million of the Company's common stock and extended the authorization through December 31, 2021. In March 2020, in connection with the issuance of the 2025 Notes, the Company repurchased approximately 1,085,000 shares of its common stock for $75.0 million. On November 3, 2021, the Board of Directors approved an increase in the share repurchase authorization by $25 million and extended the authorization through December 31, 2022. On November 2, 2022, the Board of Directors approved a one-year extension of the Company's share repurchase program. Accordingly, as of November 2, 2022, the Company is authorized to repurchase up to $100 million of its common stock through December 31, 2023. Under this program, the Company is authorized to repurchase its shares in open market purchases, privately negotiated purchases or other transactions. The Company did not repurchase any common stock during the year ended December 31, 2022.

On September 10, 2020, upon obtaining stockholder approval, the Company filed a Certificate of Amendment to its Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to increase the number of authorized shares of the Company's common stock from 120,000,000 shares to 150,000,000 shares.

## 8. Stock-Based Compensation

*Common Stock*

There were 150,000,000 shares of common stock authorized for both December 31, 2022 and 2021.

*Preferred Stock*

There are 5,000,000 shares of preferred stock authorized and none issued or outstanding at December 31, 2022 and 2021.

*Stock-based Compensation*

In March 2014, the Compensation Committee, or the Compensation Committee, of the Board of Directors of the Company adopted the 2014 Equity Incentive Plan of NuVasive, Inc., or the 2014 EIP, replacing the 2004 Amended and Restated Equity Incentive Plan, or the 2004 EIP. The 2004 EIP terminated in February 2014, upon the tenth anniversary of its effective date, and no further awards may be granted or are outstanding under the 2004 EIP as of December 31, 2022. The 2014 EIP provides the Company with the ability to grant various types of equity awards to its workforce (including, without limitation, restricted stock units, or RSUs, performance awards, and deferred stock awards). The 2014 EIP also provides for the issuance of performance RSUs, or PRSUs, to be granted subject to time- and/or performance-based vesting requirements.

The 2014 EIP allows for "net share settlement" of certain equity awards whereby, in lieu of (i) making cash payments in satisfaction of the exercise price owed respective to non-qualified stock option awards, or (ii) open market selling award shares to generate cash proceeds for use in satisfaction of statutory tax obligations respective to an award's settlement or exercise, the company offsets the award shares being settled in a respective transaction by the number of shares of company stock with a value equal to the respective obligation, and, in the case of taxes, making a cash payment to the respective taxing authority on behalf of the employee using Company cash. The net share settlement is accounted for with the cost of any award shares that are net settled being included in treasury stock and reported as a reduction in total equity at the time of settlement.

In connection with the acquisition of Ellipse Technologies in February 2016, the Company assumed the Ellipse Technologies, Inc. 2015 Incentive Award Plan and the shares thereunder, subject to an equity exchange adjustment, for future awards by the Company.

The compensation cost that has been included in the Consolidated Statements of Operations for the Company's stock-based compensation plans was as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | 2020 |
| Selling, general and administrative expense | $ 22,778 | $ 18,924 | $ 12,622 |
| Research and development expense | 5,620 | 6,112 | 5,259 |
| Cost of sales | 198 | 256 | 264 |
| Stock-based compensation expense before taxes | 28,596 | 25,292 | 18,145 |
| Related income tax benefits | (4,532) | (4,391) | (3,088) |
| Stock-based compensation expense, net of taxes | $ 24,064 | $ 20,901 | $ 15,057 |

As of December 31, 2022, there was $22.7 million and $21.5 million of unrecognized compensation expense for RSUs and PRSUs, respectively, which is expected to be recognized over a weighted-average period of approximately 1.8 years and 2.4 years, respectively. In addition, as of December 31, 2022, there was $0.8 million of unrecognized compensation expense for shares expected to be issued under the ESPP which is expected to be recognized through April 2023. There was no unamortized expense for stock options as of December 31, 2022.

*Restricted Stock Units*

The total fair value of RSUs that vested during the year ended December 31, 2022, 2021, and 2020 was $13.8 million, $18.0 million and $12.1 million, respectively.

Following is a summary of RSU activity for the year ended December 31, 2022:

| *(in thousands, except per share amounts)* | Number of Shares | Weighted Average Grant Date Fair Value |
|---|---|---|
| Outstanding at December 31, 2021 | 997 | $ 60.91 |
| Granted | 483 | 53.67 |
| Vested | (256) | 59.14 |
| Forfeited | (137) | 59.97 |
| Outstanding at December 31, 2022 | 1,087 | $ 58.23 |

For the majority of RSUs, shares are issued on the vesting dates net of the amount of shares needed to satisfy statutory tax withholding requirements to be paid by the Company on behalf of the employees. The total shares withheld related to vested RSUs were approximately 84,000, 91,000, and 71,000, in 2022, 2021, and 2020, respectively, and were based on the value of the awards on their vesting dates as determined by the Company's closing stock price. Total payments for the employees' tax obligations to the taxing authorities related to vesting RSUs were $4.6 million, $6.1 million and $4.1 million in 2022, 2021 and 2020, respectively. Further, within RSUs outstanding at December 31, 2022, there were 118,000 shares issuable pursuant to vested RSUs for which delivery has been deferred by non-employee directors.

*Performance-Based Restricted Stock Units*

The Company has granted PRSUs since 2012 for which the ultimate issuance amount is determined by the Company's Compensation Committee upon its certification of Company performance against a pre-determined matrix, which have included targets for net sales, operating margin, earnings per share and total shareholder return over pre-determined periods of time. Share payout levels range from 0% to 200% depending on the respective terms of an award. Based upon the Company's actual performance against the performance conditions, approximately 73,000, 105,000 and 61,000 shares of common stock vested pursuant to PRSUs in 2022, 2021 and 2020, respectively.

The total fair value of PRSUs vested during 2022, 2021, 2020 and was $3.9 million, $7.1 million and $3.8 million, respectively.

Following is a summary of PRSU activity for the year ended December 31, 2022:

| *(in thousands, except per share amounts)* | Shares | Maximum Number of Shares Eligible to be Issued | Average Grant Date Fair Value |
|---|---|---|---|
| Outstanding at December 31, 2021 | 681 | 941 | $ 58.95 |
| Awarded | 350 | 514 | 52.49 |
| Vested | (73) | (73) | 59.12 |
| Forfeited | (121) | (240) | 58.40 |
| Outstanding at December 31, 2022 | 837 | 1,142 | $ 56.47 |

For the majority of PRSUs, shares are issued on the vesting dates net of the amount of shares needed to satisfy statutory tax withholding requirements to be paid by the Company on behalf of the employees. The total shares withheld related to vesting PRSUs were approximately 20,000, 41,000, and 25,000 in 2022, 2021 and 2020 respectively, and were based on the value of the awards on their vesting dates as determined by the Company's closing stock price. Total payments for the employees' tax obligations to the taxing authorities related to vesting PRSUs were $1.1 million, $2.8 million, and $1.6 million in 2022, 2021, and 2020, respectively.

*Stock Options*

The Company has not granted any stock options since 2011. The stock options previously granted were exercisable for a period of up to ten years after the date of grant.

The Company issued approximately 16,000 shares of common stock, before net share settlement, upon the exercise of outstanding stock options during the year ended December 31, 2020. The aggregate intrinsic value of outstanding stock options at December 31, 2020 is based on the Company's closing stock price on December 31, 2020 of $56.33. Stock option exercises during the year ended December 31, 2020 were primarily all executed with net share settlements, for which the Company did not receive any cash proceeds. The total intrinsic value of stock options exercised was $0.4 million during the year ended December 31, 2020. There were no stock options that vested during the years ended December 31, 2022, 2021 or 2020. As of December 31, 2022 and 2021, the Company did not have any outstanding stock options.

*Employee Stock Purchase Plan*

The NuVasive, Inc. 2004 Amended and Restated Employee Stock Purchase Plan, or the ESPP, provides eligible employees with a means of acquiring equity in the Company at a discounted purchase price using their own accumulated payroll deductions. Under the terms of the ESPP, employees can elect to have up to 15% of their annual compensation, up to a maximum of $21,250 per year, withheld to purchase shares of Company common stock for a purchase price equal to 85% of the lower of the fair market value per share (at closing) of Company common stock on (i) the commencement date of the six-month offering period or (ii) the respective purchase date. In the years ended December 31, 2022, 2021 and 2020, 142,000, 153,000, and 136,000 shares, respectively, were purchased under the ESPP.

The weighted average assumptions used to estimate the fair value of stock options granted and stock purchase rights under the ESPP are as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| | 2022 | 2021 | 2020 |
| **ESPP** | | | |
| Volatility | 40 % | 39 % | 56 % |
| Expected term (years) | 0.5 | 0.5 | 0.5 |
| Risk free interest rate | 1.7 % | 0.1 % | 0.5 % |
| Expected dividend yield | — % | — % | — % |

*Common Stock Reserved for Future Issuance*

The following table summarizes common shares reserved for issuance on exercise or conversion at December 31, 2022:

| *(in thousands)* | |
|---|---|
| Issued and outstanding RSUs and PRSUs | 1,924 |
| Available for issuance under the ESPP | 534 |
| Available for future grant | 2,889 |
| 2023 Notes | 7,082 |
| 2023 Warrants | 6,949 |
| 2025 Notes | 6,512 |
| 2025 Warrants | 6,271 |
| Total shares reserved for future issuance | 32,161 |

## 9. Income Taxes

Total income (loss) before income taxes summarized by region was as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | 2020 |
| United States | $ 45,037 | $ 21,096 | $ (45,534) |
| Foreign | 7,285 | (79,480) | (2,011) |
| Total income (loss) before income taxes | $ 52,322 | $ (58,384) | $ (47,545) |

The income tax provision (benefit) was as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | 2020 |
| Current: | | | |
| Federal | $ 26,133 | $ 3,607 | $ (35) |
| State | 4,682 | 2,989 | 2,309 |
| Foreign | 1,597 | 3,268 | 4,675 |
| Total current provision | 32,412 | 9,864 | 6,949 |
| Deferred: | | | |
| Federal | (17,429) | (902) | (13,800) |
| State | (6,129) | (6,573) | (8,315) |
| Foreign | (1,791) | (23,040) | (3,849) |
| Total deferred provision | (25,349) | (30,515) | (25,964) |
| Changes in tax rate | (303) | 47 | (579) |
| Changes in valuation allowance | 5,155 | 26,306 | 9,202 |
| Total provision (benefit) | $ 11,915 | $ 5,702 | $ (10,392) |

The differences between the income tax provision (benefit) at the U.S. federal statutory tax rate and the Company's effective tax rate were as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| *(in thousands)* | 2022 | 2021 | 2020 |
| Tax provision (benefit) at federal statutory rate | $ 10,988 | $ (12,261) | $ (9,984) |
| Valuation allowance | 5,155 | 26,306 | 9,202 |
| Compensation expense | 2,570 | 2,153 | 3,314 |
| Acquisition related charges | (551) | 1,338 | 687 |
| State income tax | 2,357 | 979 | (1,243) |
| Nondeductible meals and entertainment | 247 | 171 | 351 |
| Return to provision adjustments | (2,737) | 116 | (881) |
| Change in tax rates | (303) | 47 | (579) |
| Income tax reserves | 950 | (447) | (4,217) |
| Foreign tax rate differences from federal statutory rate | 564 | (7,166) | (1,215) |
| Income tax credits and incentives | (7,012) | (7,286) | (7,155) |
| Other | (313) | 1,752 | 1,328 |
| Total provision (benefit) | $ 11,915 | $ 5,702 | $ (10,392) |

Significant components of the Company's deferred tax assets and liabilities were as follows:

| *(in thousands)* | December 31, 2022 | December 31, 2021 |
|---|---|---|
| Deferred tax assets: | | |
| Net operating loss carryforwards | $ 102,383 | $ 87,671 |
| Amortization | 42,215 | 66,482 |
| Inventory | 40,502 | 48,244 |
| Lease liability | 26,718 | 28,402 |
| General business and other credit carryforwards | 30,111 | 25,913 |
| Capitalized research and development costs | 22,827 | — |
| Original issue discount | 12,303 | 22,130 |
| Stock-based compensation | 11,692 | 10,042 |
| Foreign currency exchange gains and losses | 12,025 | 5,967 |
| Other | 27,174 | 28,699 |
| Gross deferred tax assets | 327,950 | 323,550 |
| Less valuation allowance | (167,919) | (168,409) |
| Net deferred tax assets | 160,031 | 155,141 |
| Deferred tax liabilities: | | |
| Depreciation | (43,815) | (46,597) |
| Acquired intangibles | (23,848) | (34,181) |
| Right-of-use assets | (22,211) | (23,904) |
| Other | (2,338) | (3,137) |
| Total deferred tax liabilities | (92,212) | (107,819) |
| Net deferred tax assets | $ 67,819 | $ 47,322 |

The Company consolidates subsidiaries in foreign jurisdictions which use the local currency as their functional currency. Since income taxes for these subsidiaries are assessed in their local currency, deferred tax balances are translated into the Company's reporting currency and adjusted for changes in the exchange rates over time through the cumulative translation account. During 2021, as a result of the adoption of ASU 2020-06, net decreases in deferred tax liabilities of $28.9 million and valuation allowance of $0.9 million were recorded against stockholders' equity. Additionally, during 2021, as a result of the Simplify Medical acquisition, the Company recorded an increase in deferred tax assets of $10.7 million and an offsetting increase in valuation allowance of the same amount against goodwill. Accordingly, these changes in deferred tax balances are not reflected in income tax expense and create differences between changes in net deferred tax assets and deferred tax expense for the years presented.

The following table summarizes the activity related to the Company's unrecognized tax benefits:

| *(in thousands)* | Year Ended December 31, 2022 | 2021 | 2020 |
|---|---|---|---|
| Gross unrecognized tax benefits at January 1 | $ 19,743 | $ 18,316 | $ 20,328 |
| Increases in tax positions for prior years | 488 | 165 | 1,758 |
| Increases in tax positions for current year relating to ongoing operations | 2,159 | 2,087 | 2,159 |
| Decreases in tax positions as a result of a lapse of statute of limitations | (44) | (769) | (5,929) |
| Decreases in tax positions due to settlements with taxing authorities | (63) | (56) | — |
| Gross unrecognized tax benefits at December 31 | $ 22,283 | $ 19,743 | $ 18,316 |

At December 31, 2022, 2021, and 2020, $20.1 million, $17.8 million, and $16.5 million, respectively, of the Company's total unrecognized tax benefits, if recognized, would impact the effective income tax rate.

In accordance with the disclosure requirements as described in ASC Topic 740, Income Taxes, the Company classified uncertain tax positions as non-current income tax liabilities unless expected to be paid in one year. The Company's continuing practice is to recognize interest and/or penalties related to income tax matters in income tax expense. For the years ended December 31, 2022, 2021, and 2020, the Company recognized approximately $0.4 million, $0.1 million, and $(0.1) million, respectively, in interest and penalties as income tax (expense) benefit in the Consolidated Statements of Operations. The Company had approximately $0.6 million and $0.1 million accrued for interest and penalties at December 31, 2022 and 2021, respectively, in the Consolidated Balance Sheets.

The Company believes there are no significant unrecognized tax positions that are expected to reverse by the end of 2023.

The Company is subject to routine compliance reviews on various tax matters around the world in the ordinary course of business. Currently, the only active audits are with the U.S. Internal Revenue Service for 2014 – 2016 tax years, Illinois State for the 2019 tax year, the Netherlands for the 2018 tax year, and Italy for the 2017 tax year. California is subject to examination in all years due to prior year net operating losses and research and development credits. Other major state and foreign jurisdictions remain subject to examination from 2018 and 2017 forward, respectively.

The Company made the accounting policy election to treat taxes due on U.S. inclusions in taxable income related to Global Intangible Low-Taxed Income as a current period expense when incurred (the "period cost method").

The Company has $9.0 million of undistributed earnings attributable to operations in its controlled foreign corporations as of December 31, 2022. Additionally, due to recent tax reform in the U.S. and favorable treaties between the U.S. and countries in which its controlled foreign corporations operate, the Company has the ability to repatriate earnings without incurring additional tax liabilities. Accordingly, the Company has not recorded a liability for taxes associated with any future distributions of these undistributed earnings.

At December 31, 2022, the Company had $1.6 million, $51.7 million and $292.6 million of federal, state and foreign net operating loss carryforwards, respectively. Federal net operating loss carryforwards begin to expire in 2026, state net operating loss carryforwards begin to expire in 2023, and foreign net operating losses carry forward indefinitely.

The Company has California research and development income tax credit carryforwards of $46.8 million. The California credits can be carried forward indefinitely. The Company has foreign tax credit carryforwards of $0.9 million which expire beginning in 2027. Additionally, there are other state tax jobs credit carryforwards of $0.3 million which begin to expire in 2034.

Due to the "change of ownership" provision of the Tax Reform Act of 1986, utilization of the Company's net operating loss and credit carryforwards may be subject to an annual limitation against taxable income in future periods. As a result of any future ownership changes, the annual limitation of loss and credit carryforwards may cause them to expire before ultimately becoming available to reduce future income tax liabilities.

**10. Business Segment, Product and Geographic Information**

The Company operates in one segment based upon the Company's organizational structure, the way in which the operations and investments are managed and evaluated by the chief operating decision maker, or the CODM, as well as the lack of availability of discrete financial information at a lower level. The Company's CODM reviews net sales at the product line offering level, and manufacturing, operating income and expenses, and net income at the Company wide level to allocate resources and assess the Company's overall performance. The Company shares common, centralized support functions, including finance, human resources, legal, information technology, and corporate marketing, all of which report directly to the CODM. Accordingly, decision-making regarding the Company's overall operating performance and allocation of Company resources is assessed on a consolidated basis. The Company has disclosed the net sales for each of its product line offerings to provide the reader of the financial statements transparency into the operations of the Company.

The Company reports under two distinct product lines; spinal hardware and surgical support. The Company's spinal hardware product line offerings include implants and fixation products. The Company's surgical support product offerings include IONM services, disposables and biologics, and capital equipment, all of which are used to aid spinal surgery.

Net sales by product line was as follows:

| (in thousands) | Year Ended December 31, 2022 | 2021 | 2020 |
|---|---|---|---|
| Spinal hardware | $ 909,778 | $ 856,556 | $ 783,510 |
| Surgical support | 292,164 | 282,432 | 267,072 |
| Total net sales | $ 1,201,942 | $ 1,138,988 | $ 1,050,582 |

Net sales and property and equipment, net, by geographic area were as follows:

| | Net Sales | | | Property and Equipment, Net | |
|---|---|---|---|---|---|
| | Year Ended December 31, | | | December 31, | |
| (in thousands) | 2022 | 2021 | 2020 | 2022 | 2021 |
| United States | $ 925,859 | $ 876,614 | $ 821,824 | $ 295,914 | $ 256,688 |
| International (excludes Puerto Rico) | 276,083 | 262,374 | 228,758 | 50,596 | 46,976 |
| Total | $ 1,201,942 | $ 1,138,988 | $ 1,050,582 | $ 346,510 | $ 303,664 |

## 11. Contingencies

The Company is subject to potential liabilities under government regulations and various claims and legal actions that are pending or may be asserted from time-to-time. These matters arise in the ordinary course and conduct of the Company's business and include, for example, commercial, intellectual property, environmental, securities and employment matters. The Company intends to continue to defend itself vigorously in such matters and when warranted, take legal action against others. Furthermore, the Company regularly assesses contingencies to determine the degree of probability and range of possible loss for potential accrual in its financial statements.

An estimated loss contingency is accrued in the Company's financial statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Based on the Company's assessment, it has adequately accrued an amount for contingent liabilities currently in existence. The Company does not accrue amounts for liabilities that it does not believe are probable. Litigation is inherently unpredictable, and unfavorable resolutions could occur. As a result, assessing contingencies is highly subjective and requires judgment about future events. The amount of ultimate loss may exceed the Company's current accruals, and it is possible that its cash flows or results of operations could be materially affected in any particular period by the unfavorable resolution of one or more of these contingencies.

## 12. Subsequent Events

*Proposed Merger with Globus Medical*

On February 8, 2023, the Company entered into the Merger Agreement with Globus Medical and Zebra Merger Sub, Inc., a wholly owned subsidiary of Globus Medical, or Merger Sub. The Merger Agreement provides, among other things, that subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will merge with and into the Company, referred to as the Merger, with the Company surviving the merger as a wholly owned subsidiary of Globus Medical, referred to as the Combination.

Under the Merger Agreement, at the effective time of the Merger, or the Effective Time, each share of common stock of the Company issued and outstanding immediately prior to the Effective Time (other than certain excluded shares as described in the Merger Agreement) will be cancelled and converted into the right to receive 0.75 fully paid and non-assessable shares of Class A common stock of Globus Medical, and cash in lieu of fractional shares.

The respective obligations of the Company and Globus Medical to consummate the transactions contemplated by the Merger Agreement are subject to the satisfaction or waiver of a number of conditions, including: (1) the adoption of the Merger Agreement by the Company's stockholders; (2) approval by Globus Medical's stockholders of the issuance of shares of Globus Medical Class A common stock in connection with the Merger; (3) the absence of any law or order prohibiting consummation of the Merger; (4) Globus Medical's registration statement on Form S-4 with respect to the Globus Medical Class A common stock to be issued in connection with the Merger having been declared effective by the U.S. Securities and Exchange Commission; (5) the expiration or termination of the applicable waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended; (6) accuracy of the other party's representations and warranties, subject to certain materiality standards set forth in the Merger Agreement; (7) compliance by the other party in all material respects with such other party's obligations under the Merger Agreement; and (8) the absence of a material adverse effect on the other party since February 8, 2023.

If the Merger Agreement is terminated under specified circumstances, the Company may be required to pay Globus Medical a termination fee of up to $120 million, and if the Merger Agreement is terminated under certain other circumstances, Globus Medical may be required to pay the Company a termination fee of up to $120 million.

For additional information related to the Merger Agreement, please refer to our Current Report on Form 8-K filed with the SEC on February 9, 2023 (the "February 9th Form 8-K"). The foregoing description of the Merger Agreement is qualified in its entirety by reference to the full text of the Merger Agreement attached as Exhibit 2.1 to the February 9th Form 8-K.

*Amendment to Bylaws*

On February 8, 2023, the Company's Board of Directors approved and adopted "Amendment No. 3 to the Restated Bylaws of NuVasive, Inc." which adopts an exclusive forum bylaw designating (i) a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal court for the District of Delaware) as the sole and exclusive forum for certain types of actions and proceedings, and (ii) the federal district courts of the United States of America as the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended, against the Company or any director or officer of the Company.

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