
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

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

For the year ended December 31, 2016

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 0-19711

THE SPECTRANETICS CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware

84-0997049

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

9965 Federal Drive

Colorado Springs, Colorado 80921

(Address of principal executive offices and zip code)

Registrant's Telephone Number, Including Area Code:

(719) 633-8333

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, \$.001 par value

(Title of class)

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 that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

(Do not check if a smaller reporting company)

Smaller reporting company ☐

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

The aggregate market value of the voting stock of the Registrant, as of June 30, 2016, the last business day of the registrant's most recently completed second fiscal quarter was \$789,573,001, as computed by reference to the closing sale price of the voting stock held by non-affiliates on such date. As of February 21, 2017, there were outstanding 43,475,091 shares of Common Stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement for its 2017 Annual Meeting of Stockholders, to be filed with the Securities and Exchange Commission not later than April 30, 2017, are incorporated by reference into Part III as specified herein.

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PART I

The information in this annual report on Form 10-K includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, and is subject to the safe harbor created by that section. Forward-looking statements in this report or incorporated herein by reference constitute our expectations or forecasts of future events as of the date this report was filed with the Securities and Exchange Commission (“SEC”) and are not statements of historical fact. You can identify these statements by the fact that they do not relate strictly to historical or current facts. Such statements may include words such as “anticipate,” “will,” “estimate,” “seek,” “expect,” “project,” “intend,” “should,” “plan,” “believe,” “hope,” and other words and terms of similar meaning in connection with any discussion of, among other things, future operating or financial performance, strategic initiatives and business strategies, regulatory or competitive environments, our intellectual property and product development. You are cautioned not to place undue reliance on these forward-looking statements and to note they speak only as of the date hereof. Factors that could cause actual results to differ materially from those set forth in the forward-looking statements are in the risk factors listed from time to time in our filings with the SEC and those set forth in Item 1A, “Risk Factors.” We disclaim any intention or obligation to update or revise any financial projections or forward-looking statements due to new information or other events. Some industry and market data in this annual report on Form 10-K are based on independent industry publications, including those generated by the Millennium Research Group and IMS Health, or other publicly available information. This information involves several assumptions and limitations. Although we believe that each source is reliable as of its respective date, we have not independently verified the accuracy or completeness of this information. Certain percentage amounts included herein may not add due to rounding.

ITEM 1. *Business*

The Company

We develop, manufacture, market and distribute single-use medical devices used in minimally invasive procedures within the cardiovascular system. Our products are used to cross, prepare, and treat arterial blockages in the legs and heart and to remove pacemaker and defibrillator cardiac leads. We believe that the diversified nature of our business allows us to respond to a wide range of physician and patient needs. The innovative products and services we offer are divided into three categories:

- Vascular Intervention (“VI”): Our broad portfolio of VI devices consists of laser and aspiration catheters, AngioSculpt[®] scoring balloon catheters, which are a specialty balloon market leader, support catheters, and drug coated balloon (“DCB”) catheters including our Stellarex[™] and AngioSculptX[™] products.
- Lead Management (“LM”): We are a global leader in devices for the removal of pacemaker and defibrillator cardiac leads. Our primary LM devices consist of our excimer laser sheaths, non-laser mechanical sheaths, our Bridge[™] Occlusion Balloon, and cardiac lead management accessories.
- Laser, service, and other: Our proprietary excimer laser system, the CVX-300[®], is the only laser system approved in the United States (“U.S.”), Europe, Japan, China and select other major global markets for use in multiple minimally invasive cardiovascular procedures. We sell, rent and service our CVX-300 laser systems.

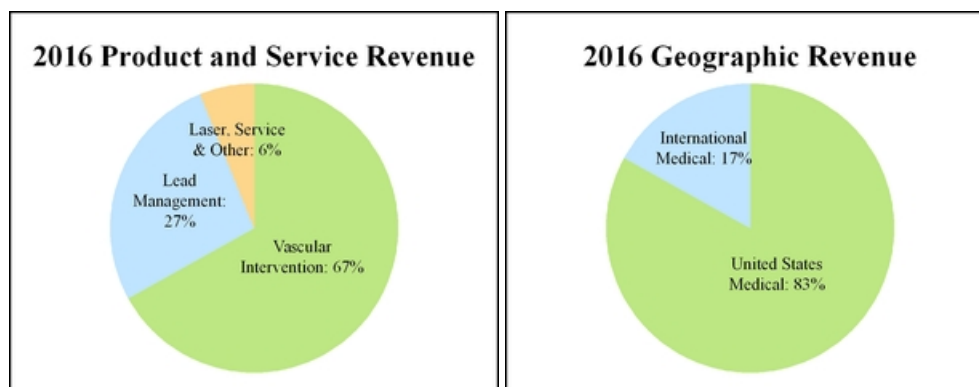
In January 2015, we acquired certain assets and liabilities related to Covidien LP’s Stellarex (“Stellarex”) over the wire percutaneous transluminal angioplasty balloon catheter with a paclitaxel coated balloon. The Stellarex DCB platform is designed to treat peripheral arterial disease. Stellarex uses EnduraCoat[™] technology, a durable, uniform coating designed to prevent drug loss during transit and facilitate controlled, efficient drug delivery to the treatment site. Stellarex products currently are approved for use in Europe but currently are not approved in the U.S. except for investigational purposes.

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In June 2014, we acquired AngioScore Inc., a U.S. market leader in specialty scoring balloon catheters. AngioScore develops, manufactures and markets the AngioSculpt scoring balloon catheter for the treatment of peripheral and coronary disease. The AngioSculpt catheter combines a semi-compliant balloon with a nitinol scoring element to address specific limitations of conventional balloon angioplasty catheters and rotational atherectomy. In August 2016, the Company received Conformité Européene (CE) mark approval of AngioSculptX, which is the world's first drug-coated scoring balloon to treat coronary disease.

Our disposable devices include VI and LM products. For the years ended December 31, 2016, 2015, and 2014, our disposable products generated 94%, 94% and 90%, respectively, of our consolidated revenue, of which VI accounted for 67%, 66% and 58%, respectively, and LM accounted for 27%, 28%, and 32%, respectively. The remainder of our revenue is derived from sales and rental of our laser systems and related service.

Our two operating segments are U.S. Medical and International Medical. U.S. Medical includes direct sales operations in the U.S. and Canada. International Medical includes product availability in over 65 countries outside of the U.S. and Canada, including our direct sales operations in certain countries in Europe and Puerto Rico and a network of approximately 60 distributors throughout Europe, Asia Pacific and Latin America. Total international revenue in 2016 was 17% of our consolidated revenue. For financial information about our segments and by geographic area for each of the last three fiscal years, please see Note 10, "Segment and Geographic Reporting," of the consolidated financial statements in Part IV, Item 15 of this annual report



Our business strategy emphasizes:

- *Saving lives and limbs:* We focus on inventing and delivering technology that allow patients to live life fully, free from health conditions that stand in the way. Our technology enables physicians to complete procedures confidently and successfully, as they treat cardiovascular disease and its complications.
- *Proven solutions:* We focus on proven algorithms of treatment for the most complex and challenging cardiovascular cases.
- *Expanding our reach:* We invest to broaden our solutions portfolio and deliver treatment options for complex diseases through:
 - organic growth via new product development;
 - new clinical indications for our existing products;
 - continued execution of our commercial, educational, and clinical programs;
 - capitalizing on our expanded sales force;
 - continued global expansion; and
 - acquisitions that leverage our current customer base and expand our portfolio of products.

Vascular Intervention Products

We are focused on the most complex challenges in peripheral (PAD) and coronary (CAD) artery disease with a vision to eradicate restenosis and reduce amputations. We partner with our customers to deliver meaningful solutions to solve the challenges of chronic total occlusions, in-stent restenosis, critical limb ischemia and complex coronary disease.

PAD is a global pandemic estimated to impact over 200 million people in the world, growing 25% from 2000 to 2010. In the U.S. and Europe alone, approximately 25 million people are afflicted with PAD; however, only approximately 10 million of these patients suffer from typical symptoms such as leg pain while walking or resting. PAD patients are often underdiagnosed and undertreated with one million patients receiving endovascular treatment each year, according to internal estimates using leading market research data.

CAD is a very large market with over two million interventions in the US and Europe. With advancements in medical therapy, total CAD procedures are flat, yet complex coronary revascularization interventions are growing rapidly with aging population and increased comorbidities of diabetes, obesity and renal disease.

Peripheral Vascular Intervention Products

Our portfolio is aligned with how physicians treat PAD: crossing the lesion, preparing the vessel, and finally treating the lesion.

In crossing, we are a U.S. market leader in support catheters, according to IMS Health data. Our crossing solutions products support vascular access in the arterial system to enable both coronary and peripheral interventions. Our primary crossing products include the Quick-Cross™, Quick-Cross Select, and Quick-Cross Extreme support catheters.

Vessel preparation is the core of our business driven by our laser atherectomy and AngioSculpt specialty scoring balloon catheter platforms. Our Turbo-Elite™, Turbo-Tandem™ and Turbo-Power™ laser atherectomy catheters treat stenoses and occlusions both above and below the knee. Our Turbo-Tandem and Turbo-Power laser catheters are the only atherectomy devices indicated to treat in-stent restenosis that are backed by level one clinical data (EXCITE) showing superior safety and effectiveness over PTA alone. We also are a U.S. market leader in the specialty balloon category. Our AngioSculpt products provide benefits to our patients in vessel preparation of complex lesions, combining a semi-compliant balloon with a nitinol scoring element to address specific limitations of conventional balloon angioplasty catheters, including a lower occurrence of flow-limiting dissections and balloon slippage.

Physicians typically treat PAD by using balloon angioplasty (either a scoring balloon, DCB or PTA), or by placing a stent (either drug-coated, bare metal or covered) in the artery. AngioSculpt peripheral scoring balloon catheters can be used for treatment of many lesion types, including highly calcified lesions, non-stent zones, and in-stent or native-vessel restenotic disease.

The acquisition of the Stellarex DCB in January 2015 further complemented our portfolio of products to treat PAD. The Stellarex DCB has been thoroughly evaluated in five significant clinical studies enrolling over 1,100 patients, including two randomized controlled trials. It has shown top tier results in patient groups comparable to randomized controlled trials of competitive products as well as in patient populations with a high percentage of severe calcium (>40%). For more information, refer to "Clinical Trials", in Part 1 of this annual report. Stellarex DCB received CE mark in the European Union in December 2014, and we launched the product in Europe in late January 2015. We expect to attain U.S. Food and Drug Administration ("FDA") premarket approval of the Stellarex DCB in 2017.

Coronary Vascular Intervention Products

In the coronary market, our disposable catheters are used to cross, prepare and treat complex CAD as an adjunctive treatment to traditional percutaneous coronary interventions using balloons and stents. For crossing and vessel preparation, we offer the ELCA™ laser ablation catheter and AngioSculpt scoring balloon catheters. For treatment, we launched AngioSculptX in Europe in the fourth quarter of 2016. AngioSculptX is a paclitaxel coated DCB on the AngioSculpt platform. In the coronary thrombus management market, we offer aspiration catheters, such as our QuickCat™ aspiration catheter, designed for quick deliverability and efficient thrombus removal from vessels in the arterial system.

Lead Management Products

We are a global leader in devices for the removal of pacemaker and defibrillation cardiac leads. The Heart Rhythm Society's list of indications for lead extraction includes several well-defined scenarios involving non-functional leads, functional leads and venous occlusion. We believe that more than 300,000 patients worldwide are indicated every year for a potential lead extraction as a result of an infection, which is classified by the Heart Rhythm Society as a Class I Indication for Extraction of Cardiac Leads. In addition, Heart Rhythm Society recommends lead extraction in the event of malfunction, system upgrade, venous occlusion, and other less common reasons, which are classified as Class II Indications for Extraction of Cardiac Leads. We believe that this results in a market potential of over \$700 million with approximately 25% from Class I indications and approximately 75% from Class II indications. Although infection is a Class I indication for lead extraction, we believe that a majority of patients with cardiac device infections are not being treated. The near-term consequence of delayed device removal for infection is an increase in the mortality rate of such patients. Recognizing this, in 2009, the Heart Rhythm Society strengthened recommendations for extraction of infected leads.

We also believe that the majority of the Class II non-infected leads are capped and left in the body as a predominant mode of practice, based on physician perception of risk associated with removal and perception that abandoned leads are benign. The long-term consequences associated with abandoned leads may be more significant than currently perceived and clinical data supporting the safety of lead removal, will be instrumental in reshaping perceptions around this procedure as a mainstream treatment option for patients with devices.

Our primary LM products include the GlideLight™ and SLS™ II; laser sheaths; Lead Locking Devices; and our mechanical tools, including the TightRail™ Rotating Dilator Sheath and SightRail™ Manual Dilator Sheath; and our Bridge Occlusion Balloon catheter.

We received 510(k) regulatory clearance and CE Mark for our Bridge Occlusion Balloon product in the first half of 2016. Bridge is designed to dramatically reduce blood loss, helping the physician maintain control, in the rare event of a tear in the superior vena cava during a lead extraction procedure. The device is designed to give the physician adequate time to stabilize and safely transition the patient to surgical repair and to give the surgeon the benefit of a clear field of view to repair the tear. By the end of 2016, Bridge was credited with providing beneficial results during a number of patient procedures, four of which were published in the *Heart Rhythm Journal*. Physicians who have incorporated Bridge into their procedural workflows report higher levels of confidence and control in approaching lead extraction procedures. Although a superior vena cava tear is a rare occurrence, we believe that this product is an important innovation that affirms our commitment to our goal of eliminating mortality as a risk during lead extraction procedures.

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Laser Equipment and Service

We sell or rent our CVX-300 excimer laser systems to hospitals and physicians' offices, and our field service engineers service the laser systems on a periodic basis.

Corporate Information

The Spectranetics Corporation is a Delaware corporation formed in 1984. Our principal executive offices are located at 9965 Federal Drive, Colorado Springs, Colorado 80921. Our telephone number is (719) 633-8333.

Our corporate website is www.spnc.com. A link to a third-party website is provided at our corporate website to access our SEC filings free of charge promptly after such material is electronically filed with, or furnished to, the SEC. We do not intend for information found on our website to be part of this document.

Research and Development

We believe research and development investments are critical to increasing our revenue and revenue growth rate. Our product development and technology teams are engaged in developing additional disposable devices addressing the VI and LM markets, and further developing our laser system. Our team of research scientists, engineers and technicians, supported by third-party research and engineering organizations, performs substantially all of our research and development activities. We believe in the near-term our primary pipeline research and development effort and expense will be within our DCB programs.

Our research and development expense, which also includes clinical studies costs, regulatory costs, and royalty costs, totaled \$67.5 million in 2016, \$64.4 million in 2015 and \$28.7 million in 2014. In 2016, research and development expense also included costs we incurred in response to a warning letter from the FDA related to observed non-conformities with current Good Manufacturing Practice ("GMP"), as defined by the FDA, at our Colorado Springs, Colorado facility. We plan to continue to respond timely and fully to the FDA's requests and we are working diligently to fully remediate the FDA's observations. We anticipate that we will incur incremental expenses ranging from approximately \$10 million to approximately \$15 million in 2017 in connection with remediating the warning letter.

Clinical Trials

Clinical studies or trials often are required in order for us to obtain regulatory approval or clearance for new products, and expanded indications for our existing products under development. The goal of a clinical trial is to meet the primary endpoint or endpoints, which measure effectiveness and/or safety of a device based on the product's ability to achieve a pre-specified outcome or outcomes. Primary endpoints for clinical trials are selected based on the proposed intended use of the medical device. A medical device pivotal study (or pivotal trial) is a definitive study designed to gather evidence to evaluate the safety and effectiveness of a product prior to its marketing. While results in clinical trials form the basis for approval or clearance of the product, results in clinical practice may be more or less favorable than in trials, because there may be variables in clinical practice that are controlled in the clinical trial setting.

Current and Recent Clinical Trials

The trials listed below represent the significant clinical work we are currently conducting or have recently conducted. This is not a complete listing of every trial conducted or underway. We may not complete some or all of the trials underway, and the clinical results of the completed trials may not be favorable, or even if favorable, they may not be sufficient to support approval or clearance of a new device or a new indication for a currently approved or cleared device.

Stellarex DCB ILLUMENATE clinical trials

There are five ILLUMENATE clinical studies evaluating the safety and effectiveness of the Stellarex DCB platform to support U.S., Canadian, and other foreign regulatory filings. These clinical data represent over 1,100 patients worth of rigorous clinical evidence.

- The ILLUMENATE First-In-Human (FIH) Study was a non-randomized, multi-center study that enrolled 80 patients. In the pre-dilatation arm (n=50), the primary patency rate at was 89.5% at 12 months and 80.3% at 24 months.
- The ILLUMENATE Pharmacokinetic Study measured the paclitaxel drug levels in the blood of 25 patients enrolled at two sites. Results demonstrated low and limited systemic exposure to paclitaxel.
- The ILLUMENATE European Randomized Clinical Trial ("EU RCT") is a prospective, randomized controlled, multi-center trial with 328 patients enrolled at 18 European sites. The primary safety and effectiveness endpoints were met and superiority over PTA was demonstrated in both. The 12-month primary patency rate was 89.0% vs. 65.0% in the PTA arm.
- The ILLUMENATE Pivotal Trial is a prospective, randomized controlled, multicenter trial with 300 patients enrolled at 43 U.S. sites to support U.S. FDA approval. The primary safety and effectiveness endpoints were met and superiority over PTA was demonstrated in both. With the most complex patient population ever studied in a DCB Superficial Femoral Artery ("SFA") Investigational Device Exemption ("IDE") trial, the 12-month primary patency rate was 82.3% at 12 months. Co-morbidities for the DCB arm included high rates of severe calcification (43.9%), diabetes (49.5%), renal insufficiency (18.0%), and cardiovascular disease (45.0%).
- The ILLUMENATE Global Study is a prospective, single arm, multi-center trial which enrolled 371 patients. The treated lesions were highly complex, including a high proportion of chronic total occlusions (31%) and severe calcification (41%), as reported by an independent angiographic core-laboratory. The 12-month primary patency rate was 81.4%

Stellarex DCB Future Studies

We began sponsorship of a large, multicenter, multi-year registry in Europe in 2016, referred to as the Stellarex Vascular e-Registry ("SAVER"). The purpose of SAVER is to continue to assess the Stellarex DCB in femoral-popliteal arteries according to the instructions for use in a broad, real-world, claudicant or ischemic rest pain patient population per the institution's standard practice. SAVER has 169 patients enrolled. In addition, we will continue to advance physician-initiated studies to evaluate long and calcified lesions.

EXCITE ISR

The EXCIMER Laser Randomized Controlled Study for the Treatment of Femoropopliteal arteries (above and behind the knee) ISR ("EXCITE ISR") study, conducted under an IDE granted by the FDA in 2011, was designed to investigate the safety and efficacy of treatment with laser atherectomy in subjects with ISR. The EXCITE ISR study incorporated a 2:1 randomization plan, in which one group of patients was treated with laser ablation using our Turbo-Tandem and Turbo-Elite laser ablation devices followed by adjunctive balloon angioplasty and a second control group was treated only with balloon angioplasty. The primary efficacy endpoint was freedom from TLR through six months following the procedure. The primary safety endpoint is freedom from major adverse events ("MAE"), such as death, major amputation, or TLR, at 30 days following the procedure. We announced early termination of the EXCITE ISR study in March 2014, having achieved statistically significant results in both safety and efficacy and meeting the endpoints of the study. In January 2015, the complete six month results of the EXCITE ISR trial were presented at the Leipzig Interventional Course (LINC) conference.

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In July 2014, we announced FDA 510(k) clearance of Turbo-Tandem and Turbo-Elite for the treatment of peripheral ISR in bare nitinol stents, when used in conjunction with percutaneous transluminal angioplasty. FDA clearance was based on the EXCITE ISR clinical findings. In December 2015, FDA clearance was granted for the 7Fr Turbo-Power atherectomy device, which includes usage for the treatment of ISR. This product line was expanded to include a 6 Fr Turbo-Power atherectomy device in January 2017. These products are now the only devices cleared by the FDA for the treatment of ISR.

Sales and Marketing

Our primary goal is to increase the global use of our vascular and cardiovascular products in new and existing accounts. We seek to educate and train physicians and institutions regarding the safety, efficacy, and ease of use of our VI and LM product portfolios. Through published studies of clinical applications and training initiatives, we share clinical outcomes with customers and potential customers to demonstrate that our products are proven safe and effective.

Our marketing team supports our VI and LM sales organizations, the Stellarex DCB program and global product development initiatives. Our team includes marketing and product managers responsible for all marketing activities for each of our core businesses. Our marketing activities are designed to support our direct sales teams and include branding, sales enablement tools, advertising and product publicity in trade journals, newsletters, continuing education programs, public relations and attendance at trade shows and professional association meetings.

We are dedicated to helping physicians cross, prepare and treat complex clinical challenges of peripheral and coronary artery disease. Throughout much of 2016, we have had a dedicated cross-functional team preparing for the launch of Stellarex in the U.S. and we are continuing to expand our sales force to address the DCB market opportunity competitively.

U.S. Sales and Marketing

Due to differentiated selling strategies and physician specialties, our U.S. sales organization is divided into two strategic groups, one focusing on VI and the other on LM. This strategic segmentation allows our sales teammates to better understand the needs of the customers within their respective product lines. Our VI commercial team works with interventional cardiologists, vascular surgeons and interventional radiologists who perform vascular procedures. Our LM commercial team works with electrophysiologists and cardiac surgeons who perform lead extraction procedures.

Our VI and LM educational sessions include hands-on training with a unique simulation system. The simulation technology augments traditional procedural training for physicians on the use of our products by permitting hands-on practice with extraction tools, catheter navigation and laser techniques in multiple case scenarios in a virtual operating environment.

International Sales and Marketing

International Medical includes product availability in over 65 countries outside of the U.S. and Canada, including our direct sales operations in certain countries in Europe and Puerto Rico and a network of approximately 60 distributors throughout Europe, Asia Pacific and Latin America. We also have a global marketing presence in key markets internationally that drives commercial execution of our full line of products to our direct international sales force and distributor partners. We sell substantially all of our products internationally, including Stellarex, which we sell in Europe; however, Stellarex is not approved in the U.S., where it is currently limited to investigational use.

We sell our products through direct sales and distributors in Japan, China and an expanding set of countries in the Asia Pacific and Latin America regions. We market and sell our products in Europe, the Middle East and

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Russia through our wholly-owned subsidiary, Spectranetics International, B.V., and its wholly-owned international subsidiaries and through distributors.

Competition

The medical device industry is highly competitive, subject to rapid change and significantly affected by new product introductions and other activities of industry participants. Our primary competitors are manufacturers of products used in competing therapies to cross, prepare and treat disease within the peripheral and coronary markets, such as mechanical methods to remove arterial blockages, balloon angioplasty and stents, specialty balloon angioplasty alternatives to our specialty scoring balloons, bypass surgery and amputation. Principal competitive factors in our markets include the ability to treat a variety of lesions safely and effectively as demonstrated by credible clinical data; ease of use of products; the impact of managed care practices, related reimbursement to the healthcare provider and procedure costs; the size and effectiveness of sales forces; and research and development capabilities. Primary competitors in the vascular intervention market include, but are not limited to, Medtronic, Boston Scientific Corporation, C.R. Bard, Inc., Cook Medical, Inc., QT Vascular, Biotronik and Cardiovascular Systems, Inc. In the lead management market our competitors include, but are not limited to, Cook Medical, Inc. and Biotronik internationally.

Manufacturing

We manufacture substantially all of our products and have vertically integrated a number of manufacturing processes in an effort to provide increased quality and reliability. We believe that our level of manufacturing integration allows us to better control lead time, costs, quality and process advancements, to accelerate new product development cycle time, to provide greater design flexibility, and to scale manufacturing, should market demand increase. Many of our manufacturing processes are proprietary.

We manufacture a significant number of our disposable products and all of our CVX-300 laser systems at our corporate headquarters in Colorado Springs, Colorado. We maintain manufacturing capabilities at another location in Colorado Springs for business continuity contingency planning purposes. We manufacture AngioSculpt products at our facility in Fremont, California. The Stellarex products are manufactured in a separate facility, also located in Fremont, California.

Our manufacturing facilities are subject to periodic inspections and audits by federal, state, international, and other regulatory authorities, including inspections by the FDA and audits by our Notified Body (currently the British Standards Institution ("BSI")), which is authorized by the European Commission ("EC") to conduct such audits on behalf of the European Union ("EU"). Most raw materials, components and subassemblies used in our laser and disposable products are purchased from outside suppliers and are generally readily available from multiple sources. We purchase certain components of our CVX-300 laser system and select disposable products from several sole source suppliers. We do not have guaranteed commitments from these suppliers.

Patents and Proprietary Rights

We hold numerous issued U.S. patents and trademarks and have rights to additional U.S. patents under license agreements in the name of The Spectranetics Corporation and AngioScore, Inc. We also hold issued patents and trademarks in other countries. In addition, we also have pending U.S. and international patent applications that cover numerous inventions, including general features of the laser system, our catheters, our scoring balloon technology platform, the coatings of our DCB platform, and other technologies. We also maintain trademarks in the U.S. and other countries as well as pending trademark applications in the U.S. and other countries.

It is our policy to require our employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting relationship with us. Each agreement provides that all confidential

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information developed or made known to the individual during the relationship will be kept confidential and not disclosed to third parties except in specified circumstances. In the case of employees, the agreements provide that all inventions developed by the individual pursuant to their employment are our exclusive property. In the case of consultants, those agreements often provide that inventions developed by the consultant under the agreement are either our exclusive property or provide us a license thereto. These agreements may not provide meaningful protection if unauthorized use or disclosure of such information occurs.

We also rely on trade secrets and unpatented know how to protect our proprietary technology and may be vulnerable to competitors who attempt to copy our products or gain access to our trade secrets and know how.

We are party to license agreements under which we license patents and technology covering certain aspects of our products. For example, we have an amended vascular laser angioplasty catheter license agreement with SurModics, Inc., under which SurModics has granted us a worldwide non-exclusive license to use a lubricious coating that is applied to our products using certain SurModics patents. We currently pay SurModics royalties as a specified percentage of net sales of products using its patents, subject to a quarterly minimum royalty. The license agreement expires on the later of the expiration of the last licensed patent or the fifteenth anniversary of the date a licensed product is first sold unless terminated earlier under certain circumstances, including if the royalties we pay SurModics are not greater than specified levels. In 2016, we incurred royalties of approximately \$1.4 million to SurModics under this license agreement.

In December 2009, we entered into a license agreement with Peter Rentrop, M.D. As part of the agreement, we received a worldwide, exclusive license to certain patents and patent applications owned by Dr. Rentrop, which, in general, apply to laser catheters with a tip diameter less than one millimeter. We pay Dr. Rentrop royalties of a specified percentage of net sales of products using his patents subject to a quarterly minimum royalty. The license agreement expires in January 2020, unless terminated earlier in accordance with its terms. In 2016, we incurred royalties of approximately \$3.0 million to Dr. Rentrop under this license agreement.

In March 2010, AngioScore entered into a development and license agreement with InnoRa GmbH, Ulrich Speck and Bruno Scheller. As part of the agreement, AngioScore received an exclusive license to certain InnoRa intellectual property related to drug coatings of certain balloon catheters in the field of the treatment of coronary artery disease and peripheral arterial disease, and AngioScore obtained ownership of any new technology developed under the agreement. AngioScore pays InnoRa royalties of a specified percentage of net sales of products developed under the agreement. The exclusive rights granted by InnoRa are subject to AngioScore meeting certain milestones. If AngioScore does not satisfy the milestones, then the exclusive license rights will convert to a non-exclusive license, and AngioScore will license certain new technology developed under the agreement to InnoRa. In 2016, AngioScore incurred an immaterial amount in royalties under this license agreement.

Third-Party Reimbursement

U.S. Third-Party Reimbursement

Reimbursement remains an important strategic consideration in the development and marketing of medical devices and procedures. We rely on appropriate insurance reimbursement to create favorable markets for our products, while providers depend on this reimbursement to incorporate new products into their medical practices. Failure to obtain insurance coverage or appropriate reimbursement can be significant barriers to the commercial success of a new product or procedure. The consequences can include slow adoption in the marketplace and inadequate payment levels that can continue over periods of time.

Our products are purchased principally by hospitals or physicians, which typically bill various third-party payers, such as governmental programs (e.g., Medicare and Medicaid), private insurance plans and managed care

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plans, for the healthcare services provided to their patients. Most third-party payers cover and reimburse for procedures using our products.

Our customers are typically reimbursed on a fixed fee, or prospective payment basis rather than at cost. This incentivizes customers to purchase the least costly device, though quality and efficacy are usually factors in the purchasing decision. Additional reimbursement is sometimes available for higher cost, newer technology, for a period of time.

International Third-Party Reimbursement

Market acceptance of our products in international markets is dependent in part upon the availability of reimbursement from healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country. The main types of healthcare payment systems in international markets are government-sponsored healthcare and private insurance. Countries with government-sponsored healthcare, such as the United Kingdom, have a centralized, nationalized healthcare system. New devices are brought into the system through negotiations between departments at individual hospitals at the time of budgeting. In many foreign countries, there are also private insurance systems that may offer payments for alternative therapies.

Government Regulation

Overview of Medical Device Regulation. Our products are medical devices subject to extensive regulation by the FDA under the Federal Food, Drug, and Cosmetic Act ("FDCA"). FDA regulations govern, among other things, the following activities related to our products:

- product design, development, manufacture and testing;
- pre-clinical and clinical studies;
- product labeling;
- product storage;
- premarket clearance or approval;
- recordkeeping;
- marketing, advertising and promotion;
- product sales and distribution; and
- post-market safety reporting.

The FDA classifies medical devices into one of three classes-Class I, Class II or Class III-based on the degree of risk the FDA determines to be associated with a device and the level of regulatory control deemed necessary to ensure the device's safety and effectiveness. Most Class I devices and some Class II devices are exempt from pre-market review and can be marketed without prior authorization from the FDA. Most of our products are Class II non-exempt medical devices and must either be approved through an application for Premarket Approval ("PMA") or be found "substantially equivalent" by the FDA (following the agency's review pursuant to Section 510(k) of the FDCA) to a legally marketed medical device not subject to a PMA. The PMA pathway is much more costly, lengthy and uncertain than the 510(k) process.

After a device is placed on the market, numerous regulatory requirements apply, such as FDA labeling regulations and Federal Trade Commission ("FTC") regulations, that prohibit promoting products for unapproved or "off-label" uses, the Medical Device Reporting regulation that requires reporting to the FDA of devices that may have malfunctioned or contributed to a death or serious injury, and the Reports of Corrections and Removals regulation that requires the reporting of recalls and field actions to the FDA.

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The FDA enforces these requirements by inspection and market surveillance. If the FDA finds a violation, it can institute a wide variety of enforcement actions, ranging from a public untitled, "it has come to our attention" letter, or warning letter to more severe sanctions such as:

- fines, injunctions, and civil penalties;
- recall or seizure of products;
- operating restrictions, partial suspension or total shutdown of production;
- refusing requests for 510(k) clearance or PMA of new products;
- withdrawing 510(k) clearance or PMAs already granted; and
- criminal prosecution.

International Regulations. International sales of our products are subject to foreign regulations, including health and medical safety regulations. The regulatory review process varies from country to country. Many countries also impose product standards, packaging and labeling requirements and import restrictions on devices.

The Medical Device Directive ("MDD") is a directive that covers the regulatory requirements for medical devices in the European Union and, upon successful completion, the MDD process results in the approval to apply for a CE mark. We have received CE mark registration for the majority of our current products. The CE mark indicates a product is certified for sale throughout the European Union and that the manufacturer of the product complies with applicable safety and quality standards.

Environmental Regulations. We are also subject to certain federal, state and local regulations regarding environmental protection and hazardous substance controls, among others. Compliance with such environmental regulations has not had a material effect on our capital expenditures or competitive position.

Corporate Compliance and Corporate Integrity Agreement. We have processes, policies and procedures designed to maintain compliance with applicable federal, state and foreign laws and regulations governing our operations. We entered a five-year Corporate Integrity Agreement ("CIA") with the Office of Inspector General of the U.S. Department of Health and Human Services ("OIG") in December 2009 to resolve a federal investigation. The CIA was completed in April 2015.

Product Liability Insurance

Our business entails the risk of product liability claims. We maintain product liability insurance for \$25 million per occurrence with an annual aggregate maximum of \$25 million.

Employees

As of December 31, 2016, we had 960 full time employees worldwide, an increase from 892 at December 31, 2015, primarily due to continued overall growth.

ITEM 1A. Risk Factors

Risks related to our business and industry

Regulatory compliance is expensive, complex and uncertain, and a failure to comply could lead to enforcement actions against us and other negative consequences for our business.

The FDA and similar state and foreign agencies regulate our products as medical devices. Complying with these regulations is costly, time consuming, complex and uncertain. FDA regulations and regulations of similar state and foreign agencies are wide-ranging and include oversight of:

- product design, development, manufacture (including supply chain) and testing;
- pre-clinical and clinical studies;
- product safety and efficacy;
- product labeling;
- product storage and shipping;
- record keeping;
- pre-market clearance or approval;
- marketing, advertising and promotion;
- product sales and distribution;
- product changes;
- product recalls; and
- post-market surveillance and reporting of deaths or serious injuries.

All of our potential products and improvements of our current products are subject to extensive regulation and will likely require permission from regulatory agencies and ethics boards to conduct clinical trials, and clearance or approval from the FDA and foreign regulatory agencies prior to commercial sale and distribution. Failure to comply with applicable U.S. requirements regarding, for example, promoting, manufacturing or labeling our products, may subject us to a variety of administrative or judicial actions and sanctions, such as Form 483 deficiency notices, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, and criminal prosecution. The FDA can also refuse to approve pending applications. Any enforcement action by the FDA and foreign regulatory agencies could have a material adverse impact on our business.

In January 2016, following an inspection of certain of our manufacturing facilities from late 2015 to early 2016, the FDA issued us a Form 483 notice, identifying certain observed non-conformities with current Good Manufacturing Practice ("GMP"), as defined by the FDA. Following the receipt of the Form 483, we provided written responses to the FDA detailing corrective actions underway to address the FDA's observations. In May 2016, we received a warning letter from the FDA related to observed non-conformities with current GMP, at our Colorado Springs, Colorado facility. We plan to continue to respond timely and fully to the FDA's requests, and we are working diligently to fully remediate the FDA's observations regarding the Colorado Springs facility. We anticipate that we will incur incremental expenses ranging from approximately \$10 million to approximately \$15 million in 2017 in connection with remediating the warning letter. We are continuing to manufacture and ship disposable products from the Colorado Springs facility and we currently do not anticipate that customer orders will be impacted while we work to resolve the FDA's concerns. Until the violations are corrected, we may be subject to additional regulatory action by the FDA and foreign regulatory agencies, including recalls, delays, suspension or withdrawal of approvals or clearances, and fines or civil penalties.

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Our products may be subject to recalls after receiving FDA or foreign approval or clearance, which could divert managerial and financial resources, harm our reputation, and adversely affect our business.

The FDA and similar foreign governmental authorities have the authority to require the recall of our products because of any failure to comply with applicable laws and regulations, or defects in design or manufacture. A government mandated or voluntary product recall by us could occur because of, for example, component failures, device malfunctions, or other adverse events, such as serious injuries or deaths, or quality-related issues such as manufacturing errors or design or labeling defects. We have conducted voluntary recalls in the past and may do so in the future. For a discussion of a recent voluntary recall, please refer to Note 13, "Commitments and Contingencies," to our consolidated financial statements included in Part IV, Item 15 of this annual report. Any future recalls of our products could divert managerial and financial resources, harm our reputation and adversely affect our business. The FDA may also order us to reimburse parties affected by the recall of our products.

In addition, we are subject to medical device reporting regulations that require us to report to the FDA or similar foreign governmental authorities if one of our products may have caused or contributed to a death or serious injury or if we become aware that it has malfunctioned in a way that would be likely to cause or contribute to a death or serious injury if the malfunction recurred. Failures to properly identify reportable events or to file timely reports can subject us to sanctions and penalties. Physicians, hospitals and other healthcare providers may make similar reports. Any such reports may trigger an investigation by the FDA or similar foreign regulatory bodies, which could divert managerial and financial resources, harm our reputation and adversely affect our business.

We may be unable to compete successfully with larger companies in our highly competitive industry.

The medical device industry is highly competitive. Our primary competitors are manufacturers of products used in competing therapies within the peripheral and coronary atherectomy and lead management markets, such as:

- atherectomy and thrombectomy, using mechanical methods to remove arterial blockages;
- balloon angioplasty and stents;
- specialty balloon angioplasty, such as scoring balloons, pillowing balloons, cutting balloons and drug-coated balloons;
- bypass surgery;
- amputation; and
- mechanical lead removal tools.

We believe that the primary competitive factors in the interventional peripheral and coronary markets include:

- the ability to treat a variety of lesions safely and effectively as demonstrated by credible clinical data;
- ease of use;
- the impact of managed care practices, related reimbursement to the healthcare provider and procedure costs;
- size and effectiveness of sales forces; and
- research and development capabilities.

Many of our competitors have substantially greater financial, manufacturing, commercial and technical resources than we do. There has been consolidation in the industry, and we expect that to continue. Larger competitors may have substantially larger sales and marketing operations than we do. This may allow those competitors to spend more time with potential customers and to focus on a larger number of potential customers, which gives them a significant advantage over our sales and marketing team and our international distributors in making sales. At times, we have experienced significant sales personnel turnover, and sales personnel turnover could be an issue in the future.

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Larger competitors may also have broader product lines, which enables them to offer customers bundled purchase contracts and quantity discounts. These competitors may have more experience than we have in research and development, marketing, manufacturing, preclinical testing, conducting clinical trials, obtaining FDA and foreign regulatory approvals and marketing approved products. Our competitors may discover technologies and techniques, or enter into partnerships and collaborations, to develop competing products that are more effective or less costly than our products or the products we may develop. This may render our technology or products obsolete or noncompetitive. Academic institutions, government agencies, and other public and private research organizations may seek patent protection regarding potentially competitive products or technologies and may establish exclusive collaborative or licensing relationships with our competitors. Our competitors may be better equipped than we are to respond to competitive pressures. Competition will likely intensify.

Technological change may adversely affect sales of our products and may cause our products to become obsolete.

The medical device market is characterized by extensive research and development and rapid technological change. Technological progress or new developments in our industry could adversely affect sales of our products. Our products could be rendered obsolete because of future innovations by our competitors or others in the treatment of cardiovascular disease.

We may be unable to sustain our revenue growth.

Our ability to continue to increase our revenue in future periods will depend on our ability to successfully penetrate our target markets and increase sales of our VI products and LM products and generate significant sales from our Stellarex DCB catheters and new and improved products we introduce, which will, in turn, depend in part on our success in growing our customer base and obtaining orders from those customers. New products will also need to be developed and approved or cleared by the FDA and foreign regulatory agencies to sustain revenue growth in our markets. Additional clinical data and new products may be necessary to grow revenue. We may not be able to generate, sustain, or increase revenue on a quarterly or annual basis. If we cannot achieve or sustain revenue growth for an extended period, our financial results will be adversely affected and our stock price may decline.

Our products may not achieve or maintain market acceptance.

Even if we obtain FDA and foreign regulatory approval or clearance of our products, or new indications for our products, market acceptance of our products in the healthcare community, including physicians, patients and third-party payers, depends on many factors, including:

- our ability to provide incremental clinical and economic data that shows the safety and clinical efficacy and cost effectiveness of, and patient benefits from, our products;
- the availability of alternative treatments;
- whether our products are included on insurance company formularies;
- the willingness and ability of patients and the healthcare community to adopt new technologies;
- the convenience and ease of use of our products relative to other treatment methods;
- the pricing and reimbursement of our products relative to other treatment methods; and
- the marketing and distribution support for our products.

Even if we obtain all necessary FDA and foreign regulatory approvals and clearances, any of our products may fail to achieve market acceptance. If we do not educate physicians about PAD and the need to address cardiac device infection through lead removal and the existence of our products, these products may not gain market acceptance, as many physicians do not routinely screen for PAD while screening for coronary artery disease and are not aware of the need to remove and replace coronary leads when treating cardiac device infections. If our products achieve market acceptance, they may not maintain that market acceptance over time if competing products or technologies are introduced that are received more favorably or are more cost effective. Our Lead Management

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products are used, in part, to remove advisory leads, which are leads for which a physician advisory has been issued by the manufacturer of the lead. When the advisory leads are extracted or become inactive, the market for our Lead Management products will be reduced. Failure to achieve or maintain market acceptance would limit our ability to generate revenue and would have a material adverse effect on our business, financial condition, and results of operations.

If we do not achieve our projected development and commercialization goals, our business may be harmed.

For planning, we estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development and commercialization goals, which we sometimes refer to as milestones. These milestones may include the commencement or completion of scientific studies and clinical trials and the submission of regulatory filings. From time to time, we publicly announce the expected timing of some of these milestones. We base these milestones on a variety of assumptions, which are subject to numerous risks and uncertainties. There is a risk we will not achieve these milestones on a timely basis or at all. Even if we achieve these milestones, the actual timing of the achievement of these milestones can vary dramatically compared to our estimates, often for reasons beyond our control, depending on numerous factors, including:

- the rate of progress, costs and results of our clinical trials and research and development activities;
- our ability to identify and enroll patients who meet clinical trial eligibility criteria;
- the extent of scheduling conflicts with participating physicians and clinical institutions;
- adverse reactions reported during clinical trials or commercialization;
- the ability of our products to meet the standards for clearance or approval;
- the receipt of IDEs, marketing approvals and clearances by our competitors and by us from the FDA and foreign regulatory agencies; and
- other actions by regulators, including actions related to a class of products.

If we do not meet these milestones for our products or if we are delayed in achieving these milestones, the development and commercialization of new products, modifications of existing products or sales of existing products for new approved indications may be prevented or delayed, which could damage our reputation or materially adversely affect our business. Even if we achieve a milestone for a product, market acceptance for the product is not assured.

We have a history of losses and may not return to profitability.

We incurred net losses from our inception in 1984 until 2000, and again in 2002, 2006, from 2008 to 2010 and from 2013 to 2016. At December 31, 2016, we had accumulated \$252.7 million in net losses since inception. We may not be profitable in the future.

We have made certain assumptions relating to the AngioScore and Stellarex acquisitions that have proven in the past and may prove in the future to be materially inaccurate.

We have made certain assumptions relating to the AngioScore and Stellarex acquisitions that relate to numerous matters, including:

- projections of future revenue and revenue growth rates;
- the amount of goodwill and intangibles resulting from the acquisitions;
- certain other purchase accounting adjustments that are being recorded in our financial statements in connection with the acquisitions;
- our ability to maintain, develop and deepen relationships with customers; and
- other financial and strategic risks of the acquisitions.

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Certain assumptions relating to the AngioScore and Stellarex acquisitions may prove to be inaccurate. For example, for 2015 and 2016, the first two full fiscal years subsequent to the AngioScore acquisition, we failed to achieve the revenue growth that we projected at the time of the acquisition. Our assumptions relating to the AngioScore and Stellarex acquisitions may be inaccurate in the future, which may result in our failure to realize the expected benefits of the acquisitions, failure to realize expected revenue growth rates, failure to receive product clearances or approvals in a timely manner or at all, higher than expected operating, transaction and integration costs, failure to integrate acquired personnel, loss of key employees, loss of key vendors, as well as general economic and business conditions that may adversely affect us following the acquisitions. If our assumptions regarding these acquisitions prove to be inaccurate and we cannot achieve or sustain revenue growth or we experience higher costs for an extended period, our financial results will be adversely affected and our stock price may decline.

If we cannot obtain additional funding, we may be unable to make desirable acquisitions or fund expanding growth and operations.

We may require additional funds to make acquisitions of desirable companies, products or technologies, or fund expanding growth and operations. There can be no assurance that financing will be available in amounts or on terms acceptable to us, if at all. The inability to obtain additional capital may restrict our ability to grow and may reduce our ability to make desirable acquisitions. Any equity or convertible debt financing may result in substantial dilution to our existing stockholders.

If we do not manage our growth or control costs related to growth, our results of operations will suffer.

We intend to grow our business by expanding our customer base, sales force and product offerings, including through additional acquisitions or other business combinations. Growth could place significant strain on our management, employees, operations, operating and financial systems, and other resources. To accommodate significant growth, we could be required to open additional facilities, expand and improve our information systems and procedures and hire, train, motivate and manage a growing workforce, all of which would increase our costs. Our systems, facilities, procedures and personnel may not be adequate to support our future operations. Further, we may not maintain or accelerate our current growth, manage our expanding operations or achieve planned growth on a timely and profitable basis.

Litigation and other legal proceedings may adversely affect our business.

From time to time we are involved in legal proceedings relating to patent and other intellectual property matters, product liability claims, employee claims, tort or contract claims, federal regulatory investigations, securities class action, and other legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business. Litigation is inherently unpredictable and can result in excessive or unanticipated verdicts and/or injunctive relief that affect how we operate our business. We could incur judgments or enter into settlements of claims for monetary damages or for agreements to change the way we operate our business, or both. There may be an increase in the scope of these matters or there may be additional lawsuits, claims, proceedings or investigations in the future, which could have a material adverse impact on us. Adverse publicity about regulatory or legal action against us could damage our reputation and brand image, undermine our customers' confidence and reduce long-term demand for our products, even if the regulatory or legal action is unfounded or not material to our operations.

We must indemnify officers and directors, including, in certain circumstances, former employees and directors, against all losses, including expenses, incurred by them in legal proceedings and advance their reasonable legal defense expenses, unless certain conditions apply. We are indemnifying and advancing legal defense expenses for an officer and former officer in connection with the securities class action litigation described below, and we also have incurred significant advancement costs in connection with AngioScore's litigation with a former director as

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described below. Insurance for claims of this nature does not apply in all such circumstances, may be denied or may not be adequate to cover all legal or other costs related to the proceeding. A prolonged uninsured expense and indemnification obligation could have a material adverse impact on us.

We have been named as a defendant in a securities class action lawsuit that may result in substantial costs and could divert management's attention.

On August 27, 2015, a person purporting to represent a class of persons who purchased our securities between February 19, 2015 and July 23, 2015 filed a lawsuit against us and certain of our officers in the U.S. District Court for the District of Colorado. The lawsuit asserts claims under Sections 10(b) and 20 of the Securities Exchange Act of 1934, alleging that certain of our public statements concerning our projected revenue for 2015 were false and misleading. Plaintiff seeks unspecified monetary damages on behalf of the alleged class, interest, and attorney's fees and costs of litigation. On March 1, 2016, the plaintiffs filed an amended complaint, including additional allegations challenging certain statements made by us. The class period in the amended complaint runs from February 27, 2014 to July 23, 2015. We filed a motion to dismiss the amended complaint in June 2016, plaintiffs filed their response in July 2016, and we filed our reply brief in August 2016.

We are not able to predict the ultimate outcome of this action. It is possible it could be resolved adversely to us, result in substantial costs, result in derivative actions and additional claims, and divert management's attention and resources, which could harm our business. While we maintain director and officer liability insurance and have submitted this claim to our carriers who have acknowledged coverage and reserved their rights under the policies, the amount of insurance coverage may not be sufficient to cover a claim, and the continued availability of this insurance cannot be assured. Protracted litigation, including any adverse outcomes, may have an adverse impact on our business, results of operations or financial condition, could subject us to adverse publicity, and require us to incur significant legal fees.

We may incur substantial costs because of litigation or other proceedings relating to patent and other intellectual property rights, which could cause substantial costs and liability.

There may be patents and patent applications owned by others relating to peripheral and coronary atherectomy products, lead management products, specialty balloons, drug-coated balloons, or other technologies, which, if determined to be valid and enforceable, may be infringed by us. Holders of certain patents, including holders of patents involving the use of lasers, catheters, specialty balloons or drug-coated balloons in the body, may contact us and request we enter into license agreements for the underlying technology and pay them royalties, which could be substantial.

If we need to obtain a license to use any intellectual property, we may be unable to obtain such license on favorable terms or at all or we may be required to make substantial royalty or other payments to use this intellectual property or we may become involved in litigation regarding the use of the relevant intellectual property.

Litigation concerning patents and proprietary rights is time-consuming, expensive and unpredictable, and could divert the attention of our management from our business operations. We cannot guarantee that other patent holders will not sue us and prevail. An adverse ruling could subject us to significant liability, require us to seek licenses, and restrict our ability to manufacture and sell our products. We are, and in the past have been, a party to legal proceedings involving our intellectual property and may be a party to future proceedings. For a discussion of our legal proceedings, please refer to Note 13, "Commitments and Contingencies," to our consolidated financial statements included in Part IV, Item 15 of this annual report. Some of our competitors may be able to sustain the costs of complex litigation more effectively than we can because they have substantially greater resources. An unfavorable outcome in an interference proceeding or patent infringement suit could require us to pay substantial damages, to lose our patent protection, to cease using the technology or to license rights, potentially at a substantial cost, from prevailing third parties. There is no guarantee that any prevailing party would offer us a license or that we

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could acquire any license on commercially acceptable terms. Even if we can obtain rights to a third-party's patented intellectual property, those rights may be non-exclusive, and therefore our competitors may obtain access to the same intellectual property. Ultimately, we may have to cease some of our business operations because of patent infringement claims, which could severely harm our business. To the extent we are found to be infringing on the intellectual property rights of others, we may not develop or otherwise obtain alternative technology. If we need to redesign our products to avoid third-party patents, we may suffer significant regulatory delays associated with conducting additional studies or submitting technical, manufacturing or other information related to any redesigned product and, ultimately, in obtaining regulatory approval. Further, any such redesigns may result in less effective or less commercially desirable products or both.

AngioScore is subject to pending litigation that may materially harm its intellectual property and our business .

Prior to our acquisition of AngioScore, AngioScore filed a lawsuit in federal district court in California against Eitan Konstantino, a former director of AngioScore and founder of TriReme Medical, LLC ("TriReme"), Quattro Vascular Pte Ltd. ("Quattro") and QT Vascular Ltd. ("QT Vascular"), which sell a balloon angioplasty device sold under the name "Chocolate." The lawsuit alleged infringement of an AngioScore patent, and state law claims of breach of fiduciary duties by Konstantino while serving as a director of AngioScore, and aiding and abetting of that breach by the other defendants. In July 2015, the district court ruled in favor of AngioScore, finding that Konstantino breached his fiduciary duties to AngioScore, that TriReme and Quattro aided and abetted that breach, and that QT Vascular was liable for the acts of TriReme and Quattro. The district court awarded AngioScore \$20.034 million against all defendants plus disgorgement from Konstantino of all benefits he accrued from his breach of fiduciary duties. In September 2015, a jury found against AngioScore in the patent infringement case.

In July 2016, an appellate court reversed the state law rulings on procedural grounds, finding that the district court lacked jurisdiction to hear those claims, and affirmed the district court's ruling that the defendants were not entitled to attorneys' fees in the patent infringement case. In August 2016, AngioScore filed a petition for rehearing of the order reversing the state law rulings, which the appellate court denied. The appellate court remanded the matter to the district court for dismissal of the state law claims, which the district court did in February 2017.

In May 2014, Konstantino filed claims for advancement of fees and costs and indemnification by AngioScore against the breach of fiduciary duty claims. A court held in August 2014 that AngioScore was required to advance the former director's attorneys' fees. AngioScore filed a motion for summary judgment, and in November 2015, the court granted in part AngioScore's motion for summary judgment and ordered that TriReme is liable for 50% of advanced fees and costs, and must pay all fees and costs to be advanced moving forward until such fees and costs equal the fees and costs paid by AngioScore, and thereafter, the fees and costs must be advanced 50% by TriReme and 50% by AngioScore. A judge or jury could determine that AngioScore must ultimately pay the former director's legal fees and costs defending against the breach of fiduciary duty and other claims, and the fees and costs associated with the dispute regarding indemnification, which could be material. As of December 31, 2015, AngioScore had incurred approximately \$12.8 million in advancement costs, which may not be covered by insurance. AngioScore did not incur any advancement costs in 2016.

In June 2014, TriReme sued AngioScore seeking to change the inventorship of certain patents owned by AngioScore. TriReme alleges that an Israeli physician, Chaim Lotan, should be named as a co-inventor on three patents owned by AngioScore. Dr. Lotan allegedly assigned any rights he may have had in the three patents to TriReme. In March 2015, the court granted AngioScore's motion to dismiss this case. In February 2016, an appellate court reversed the lower court's ruling dismissing the case and remanded the case for further proceedings. In January 2017, AngioScore filed a motion for summary judgment requesting the court to dismiss the case.

Regardless of whether AngioScore ultimately prevails in this litigation, the defendants and other third parties may use the AngioScore discoveries or technologies without paying damages, licensing fees or royalties to

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us, which could significantly diminish the value of the AngioScore intellectual property. We cannot at this time determine the likelihood of any outcome. As of December 31, 2016, we had no amounts accrued for potential damages. During the years ended December 31, 2016 and 2015, we incurred \$1.8 million and \$19.9 million, respectively, of legal fees associated with these matters, including amounts advanced for certain of Konstantino's attorneys' fees and costs in 2015. A judge or jury could determine that AngioScore must ultimately pay the former director's legal fees and costs defending against the breach of fiduciary duty and other claims, and the fees and costs associated with the dispute regarding indemnification. The cost of this litigation may continue to be material to us and may not be covered by insurance. Any of the foregoing could have a material adverse effect on our business, results of operations, financial position, or liquidity.

Healthcare reform initiatives and other administrative and legislative proposals may adversely affect our business, financial condition, results of operations and cash flows in our key markets.

There have been and continue to be proposals by the federal government, state governments, regulators and third-party payers to control or manage the increased costs of health care and, more generally, to reform the U.S. healthcare system. Certain of these proposals could limit the prices we are able to charge for our products or the coverage and reimbursement available for our products and could limit the acceptance and availability of our products. The adoption of proposals to control costs could have a material adverse effect on our financial position and results of operations.

The Patient Protection and Affordable Care Act ("PPACA") has made significant changes to the way healthcare is financed by both federal and state governments and private insurers, and has directly impacted the medical device and pharmaceutical industries. The PPACA includes, with limited exceptions, a deductible excise tax of 2.3% on sales of medical devices by entities, including us, which manufacture or import certain medical devices offered for sale in the U.S., including many of our products. The tax was effective January 1, 2013, but is currently suspended under a two-year moratorium that began January 1, 2016. Revenue from many of our products is subject to that excise tax. Congress is currently considering whether to permanently repeal the medical device excise tax.

Congress has adopted other legislative changes regarding healthcare since it enacted the PPACA. On August 2, 2011, the Budget Control Act of 2011 created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, could not reach required goals, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year. The 2% Medicare payment reductions went into effect in April 2013 and, unless additional Congressional action is taken, will stay in effect through 2025 due to the Bipartisan Budget Act of 2015 signed into law in November 2015. The American Taxpayer Relief Act ("ATRA") also reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These laws may cause additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and our financial condition.

Various new healthcare reform proposals are emerging at the federal and state level. Any new federal and state healthcare initiatives that may be adopted could limit the amounts that federal and state governments will pay for healthcare products and services, and could have a material adverse effect on our industry and our results of operations.

Product clearances and approvals can often be denied or significantly delayed.

Under FDA regulations, unless exempt, a new medical device may only be commercially distributed after it has received 510(k) clearance or is the subject of an approved PMA. The FDA will clear marketing of a medical

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device through the 510(k) process if it is demonstrated that the new product is substantially equivalent to another legally marketed product not subject to a PMA. Sometimes, a 510(k) clearance must be supported by preclinical and clinical data.

The PMA process typically is more costly, lengthy and stringent than the 510(k) process. Unlike a 510(k) review which determines “substantial equivalence,” a PMA requires that the applicant demonstrate reasonable assurance that the device is safe and effective by producing valid scientific evidence, including data from preclinical studies and human clinical trials. Therefore, to obtain regulatory clearance or approvals, we typically must, among other requirements, provide the FDA and similar foreign regulatory authorities with preclinical and clinical data that demonstrate to their satisfaction that our products satisfy the criteria for clearance or approval. Preclinical testing and clinical trials must comply with the regulations of the FDA and other government authorities in the U.S. and similar agencies in other countries.

We may be required to obtain new PMAs, PMA supplements or additional 510(k) premarket clearances to market modifications to our existing products. The FDA requires device manufacturers to make and document a determination of whether a modification requires an approval, supplement or clearance; however, the FDA can review a manufacturer’s decision. The FDA may not agree with our decisions not to seek approvals, supplements or clearances for particular device modifications. If the FDA requires us to obtain PMAs, PMA supplements or pre-market clearances for any modification to a previously cleared or approved device, we may be required to cease manufacturing and marketing the modified device and perhaps also to recall such modified device until we obtain FDA clearance or approval. We may also be subject to significant regulatory fines or penalties.

The FDA may not approve our current or future PMA applications or supplements or clear our 510(k) applications on a timely basis or at all. Such delays or refusals could have a material adverse impact on our business.

The FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which may prevent or delay approval or clearance of our products under development or impact our ability to modify our currently approved or cleared products on a timely basis. Any of these actions could have a material adverse impact on our business.

International regulatory approval processes may take longer than the FDA approval process. If we fail to comply with applicable FDA and foreign regulatory requirements, we may not receive regulatory approvals or may be subject to FDA or foreign enforcement actions. We may be unable to obtain future regulatory approval in a timely manner, or at all, especially if existing regulations are changed or new regulations are adopted. For example, the FDA clearance process for the use of excimer laser technology in clearing blocked arteries in the leg took longer than we anticipated due to requests for additional clinical data and changes in regulatory requirements. A failure or delay in obtaining necessary regulatory approvals would materially adversely affect our business.

If our clinical trials are unsuccessful or significantly delayed, or if we do not complete our clinical trials, our business may be harmed.

Product development is a long, expensive and uncertain process and is subject to delays and to the risk that products may ultimately prove unsafe or ineffective in treating the indications for which they are designed. Completion of the clinical trials usually takes several years or more. We cannot assure you that we will successfully complete clinical testing of our products within the period we have planned, or at all. Even if we achieve positive interim results in clinical trials, these results do not necessarily predict final results, and positive results in early trials do not necessarily indicate success in later trials. Several companies in the medical device industry have suffered significant setbacks in advanced clinical trials, even after receiving promising results in earlier trials.

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We may experience numerous adverse events during, or because of, the clinical trial process that could delay or prevent us from receiving regulatory approval for new products, modification of existing products, or new approved or cleared indications for existing products including:

- delays in enrolling an adequate number of subjects in clinical trials when competing with other companies;
- enrollment in our clinical trials may be slower than we anticipate, or we may experience high drop-out rates of subjects from our clinical trials, resulting in significant delays;
- the FDA or similar foreign regulatory authorities may find the product is not sufficiently safe for investigational use in humans;
- officials at the FDA or similar foreign regulatory authorities may interpret data from preclinical testing and clinical trials unfavorably or less favorably than we do;
- there may be delays or failure in obtaining approval of our IDE or clinical trial protocols from the FDA or foreign regulatory authorities;
- there may be delays in obtaining institutional review board approvals or government approvals to conduct clinical trials at prospective sites;
- the FDA or similar foreign regulatory authorities may find our or our suppliers' manufacturing processes or facilities unsatisfactory;
- the FDA or similar foreign regulatory authorities may change their approval policies or adopt new regulations that may negatively affect or delay our ability to bring a product to market or receive approvals or clearances to treat new indications;
- our clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical or preclinical testing or to abandon programs;
- we may have difficulty managing multiple clinical sites;
- trial results may not meet the level of statistical significance required by the FDA or foreign regulatory authorities;
- we may experience delays in agreeing on acceptable terms with third-party research organizations and trial sites that will conduct the clinical trials; and
- we, or regulators, may suspend or terminate our clinical trials because the participating patients are being exposed to unacceptable health risks.

Failures or perceived failures in our clinical trials will delay and may prevent our product development and regulatory approval process, damage our business prospects and negatively affect our reputation and competitive position. Any of these outcomes could have a material adverse impact on our business.

From time to time, we engage outside parties to perform services related to certain of our clinical studies and trials, and any failure of those parties to fulfill their obligations could cause costs and delays.

From time to time, we engage consultants and contract research organizations to help design, monitor and analyze the results of certain of our clinical studies and trials. The consultants and contract research organizations we engage interact with clinical investigators to enroll patients in our clinical trials. We depend on these consultants, contract research organizations and clinical investigators to perform the clinical studies and trials and monitor and analyze data from these studies and trials under the investigational plan and protocol for the study or trial and in compliance with regulations and standards, commonly referred to as good clinical practices, for conducting, recording and reporting results of clinical studies or trials to assure that the data and results are credible and accurate and the trial participants are adequately protected, as required by the FDA and foreign regulatory authorities. The consultants and contract research organizations also are responsible for protecting confidential patient data and complying with U.S. laws and regulations related to data privacy, including the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act ("HIPAA"), and equivalent European Union and other foreign laws where such services are provided. We may face delays in our regulatory approval process if these parties do not perform their obligations in a timely or

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competent fashion or if we must change service providers. This risk may be greater for our clinical studies and trials conducted outside of the U.S., where it may be more difficult to ensure our studies and trials are conducted in compliance with FDA or foreign regulatory requirements. Any third parties we hire to design or monitor and analyze results of our clinical studies and trials may also provide services to our competitors, which could compromise the performance of their obligations to us. If these third parties do not successfully carry out their duties or meet expected deadlines, or if the quality, completeness or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical trial protocols or for other reasons, our clinical studies or trials may be extended, delayed or terminated or may otherwise prove to be unsuccessful, and our development costs will increase. We may not establish or maintain relationships with these third parties on favorable terms, or at all. If we need to enter into replacement arrangements, including because a third-party is not performing in accordance with our expectations, we may not do so without undue delays or considerable expenditures, or at all.

The FDA and similar foreign regulatory bodies may hold us responsible for any failure of our third-party consultants or contract research organizations. Our monitoring of our third-party consultants or contract research organizations may fail to detect, remedy, or report their failures.

Any of these occurrences could have a material adverse impact on our business.

Our regulatory compliance program cannot guarantee we comply with all potentially applicable U.S. federal and state regulations and all potentially applicable foreign regulations.

We are subject to extensive federal and state regulation in the U.S. and in foreign countries covering, for example, the development, testing, manufacturing, distribution, pricing, sales, marketing, promotion, import, export and reimbursement of our products, together with our general operations. We are also subject to certain financial regulations, including the National Physician Payment Transparency Program in the U.S., which requires collection of information about payments to physicians and teaching hospitals for each calendar year and reporting such information by the 90th day of each subsequent calendar year. Congress and certain governmental entities, such as the FDA, the Office of Inspector General ("OIG"), and the U.S. Department of Justice ("DOJ") have been increasing their scrutiny of our industry. Although we have a regulatory compliance program, our employees, our consultants or our contractors may not comply with all potentially applicable U.S. federal and state laws and regulations or all potentially applicable foreign laws and regulations, including laws and regulations about the promotion of our approved or cleared products. Promotion of products cleared under a 510(k) can be particularly risky because 510(k) cleared indications can be vague, and the FDA or foreign regulatory agencies may determine that our promotion of a product is "off-label." This may also occur with products approved under a PMA. If we fail to comply with these laws or regulations, a range of actions could result, including, but not limited to, the termination of clinical trials, failing to approve a product candidate, restrictions on our products or manufacturing processes, including withdrawal or recall of our products from the market, significant fines, penalties and/or damages, exclusion from government healthcare programs or other sanctions or litigation. In April 2015, we completed a five-year corporate integrity agreement as part of a 2009 settlement of a federal compliance investigation of our company.

The continuing development of many of our products depends upon our maintaining strong working relationships with physicians.

The research, development, marketing and sale of many of our new and improved products depend upon our maintaining working relationships with physicians. We rely on these professionals to provide us with considerable knowledge and experience regarding the development, marketing and sale of our products. Physicians assist us as researchers, marketing and product consultants, inventors and public speakers. If we cannot maintain our strong working relationships with these professionals and continue to receive their advice and input, the development and marketing of our products could suffer, which could have a material adverse effect on our business and results of operations. At the same time, the medical device industry's relationship with physicians is under increasing scrutiny by the OIG and the DOJ. Our failure to comply with requirements governing the industry's

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relationships with physicians, including the reporting of certain payments to physicians under the National Physician Payment Transparency Program or an investigation into our compliance by the OIG or the DOJ, could have a material adverse effect on our business.

We may not effectively be able to protect our intellectual property, which could have a material adverse effect on our business, financial condition or results of operations.

The medical device market in which we participate is largely technology driven. Physicians historically have moved quickly to new products and new technologies. As a result, intellectual property rights, particularly patents and trade secrets, play a significant role in product development and differentiation. Trademarks also play a role in product differentiation. In order to protect our intellectual property, we may be involved in intellectual property litigation, which is inherently complex, expensive and unpredictable.

We hold patents and licenses to use patented technology, and have numerous pending patent applications. Our patents cover numerous inventions, including features of our catheters and other technologies. Our competitors may seek to produce products that include technologies that are not subject to patent protection, which may negatively affect our business.

The patents we own and license may not be sufficiently broad to protect our technology or to give us any competitive advantage. Our patents could be challenged as invalid or unenforceable, or circumvented by competitors. Issuing a patent is not conclusive as to its validity or enforceability. Any patents for which we have applied may not be granted. Third parties own numerous U.S. and foreign issued patents and pending patent applications in the fields in which we manufacture and sell our products.

Because patent applications can take many years to issue, there may be pending applications, unknown to us, which may later result in issued patents our products or technologies may infringe. Challenges raised in, or in response to, patent infringement litigation may cause determinations that our patents or licensed patents are invalid, unenforceable, or otherwise subject to limitations. In such events, third parties may use the discoveries or technologies without paying damages, licensing fees or royalties to us, which could significantly diminish the value of our intellectual property. We could also be adversely affected if our licensors terminate our licenses to use patented technology.

We hold trademark applications or registrations relating to our products. Our trademarks may also be challenged as invalid or not distinctive by competitors or third parties. Issuing a trademark registration is not conclusive as to its validity or the right to use such trademark. Third parties own numerous U.S. and foreign trademark registrations and trademark applications in the fields in which we manufacture and sell our products.

The laws of certain foreign countries do not protect our intellectual property rights to the same extent as do the laws of the U.S. The foregoing could have a material adverse effect on our business.

If we cannot protect and control unpatented trade secrets, know-how and other proprietary technology, we may suffer competitive harm.

Besides patented intellectual property, we also rely on trade secrets, unpatented proprietary technology, confidential information and know-how to protect our technology and maintain our competitive position, particularly when patent protection is not appropriate or obtainable. However, trade secrets and unpatented proprietary technology are difficult to protect. To protect proprietary technology and processes, we rely in part on confidentiality and intellectual property assignment agreements with our employees, consultants and others. These agreements may not prevent disclosure of confidential information nor result in the effective assignment to us of intellectual property, and may not provide an adequate remedy if unauthorized disclosure of confidential information or other breaches of the agreements occur. Others may independently discover trade secrets and proprietary

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information licensed to us or that we own, and in such case, we could not assert any trade secret rights against such party. Enforcing a claim that a party illegally obtained and is using trade secrets licensed to us or that we own is difficult, expensive and time consuming, and the outcome is unpredictable. Courts outside the U.S. may be less willing to protect trade secrets or unpatented proprietary technology. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We have important sole source suppliers and may be unable to replace them if they stop supplying us.

We purchase certain components of our CVX-300 laser system and select disposable products from several sole source suppliers. We do not have guaranteed commitments from these suppliers, as we order products through purchase orders placed with these suppliers from time to time. While we believe that we could obtain replacement components from alternative suppliers, we may be unable to do so. Losing any of these suppliers could cause a disruption in our production. Our suppliers may encounter problems during manufacturing due to a variety of reasons, including failure to follow specific protocols and procedures, failure to comply with applicable regulations, equipment malfunction and environmental factors. Establishing additional or replacement suppliers for these materials may take significant time, as certain of these suppliers must be approved by regulatory authorities. If we cannot secure on a timely basis sufficient quantities of the materials we depend on to manufacture our laser systems and disposable products, if we encounter delays or contractual or other difficulties in our relationships with these suppliers, or if we cannot find replacement suppliers at an acceptable cost, then manufacturing our laser system and disposable products may be disrupted, which could increase our costs and have a material adverse effect on our business.

If critical components used in manufacturing our CVX-300 excimer laser system or other products become scarce or unavailable, we may incur increased costs and delays in the manufacturing and delivery of our products, which could damage our business.

Certain critical components used in manufacturing our products may be subject to supply shortages, which could subject our business to the risk of price increases and delays in the delivery of our products. If we are unable to continue obtaining components from our suppliers in the quantities we require, on a timely basis, and at acceptable prices, we may not be able to deliver our products on a timely or cost-effective basis to our customers, or at all, which could reduce our product sales, increase our costs, and harm our business. Moreover, if any of our suppliers become unable to supply our required materials, then we may need to find new suppliers, which could take significant time and could disrupt our production. As a result, we could experience significant delays in manufacturing and delivering our products to customers. We cannot assure you we can continue obtaining required materials that are in short supply within the time frames we require at an affordable cost, if at all.

Our net operating loss carryovers may be limited.

We have net operating loss carryovers, or NOLs, including NOLs that we acquired in the AngioScore acquisition, that we may use to offset against taxable income for U.S. federal income tax purposes. However, Section 382 of the Internal Revenue Code of 1986, as amended, may limit the NOLs that we may use in any year for U.S. federal income tax purposes in the event of certain changes in ownership of our company. The NOLs of AngioScore or any other company that we may acquire may also be limited due to the ownership change that occurs upon acquisition. Any limitation on our ability to use NOLs could, depending on the extent of such limitation, result in higher U.S. federal income taxes being paid (and therefore a reduction in cash) during any year in which we have taxable income than if such NOLs were available as an offset against such income for U.S. federal income tax reporting purposes.

The stated value of long-lived and intangible assets may become impaired and result in an impairment charge.

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As of December 31, 2016, we had approximately \$247.0 million of intangible assets and goodwill, \$209.4 million of which related to the AngioScore acquisition. In addition, if in the future we acquire additional businesses or technologies, a substantial portion of the value of such assets may be recorded as intangible assets or goodwill. The carrying amounts of intangible assets and goodwill are affected whenever events or changes in circumstances indicate that the carrying amount of any asset may not be recoverable. Such events or changes might include a significant decline in market share, a significant decline in revenue, a significant increase in losses or decrease in profits, rapid changes in technology, failure to achieve the benefits of capacity increases and utilization, significant litigation arising out of an acquisition or other matters. Adverse events or changes in circumstances may affect the estimated undiscounted future operating cash flows expected to be derived from intangible assets. If at any time we determine that an impairment has occurred, we will be required to reflect the impaired value as a charge, resulting in a reduction in earnings in the period such impairment is identified and a corresponding reduction in our net asset value. In 2016, there was no intangible asset impairment. In 2015, we recorded an intangible asset impairment of \$2.5 million to record a partial impairment of the in-process research and development intangible assets acquired as part of the AngioScore acquisition. For more information, refer to Note 2, "Business Combinations," to our consolidated financial statements in Part IV, Item 15 of this annual report. In 2014, we recorded an impairment charge of approximately \$4.1 million related to the intangible assets acquired as part of our product acquisition from Upstream Peripheral Technologies Ltd. ("Upstream") in January 2013, based on their updated fair value using revised cash flow assumptions related to those assets. The potential recognition of impairment in the carrying value of our long-lived assets, if any, could have a material and adverse effect on our financial condition and results of operations.

We and our component suppliers may not meet regulatory quality standards applicable to our manufacturing processes, which could have an adverse effect on our business, financial condition, and results of operations.

As a medical device manufacturer, we must register with the FDA and foreign regulatory agencies, and we are subject to periodic inspection by the FDA and foreign regulatory agencies, for compliance with certain good manufacturing practices, including design controls, product validation and verification, in process testing, quality control and documentation procedures. Compliance with applicable regulatory requirements is subject to continual review and is rigorously monitored through periodic inspections by the FDA and foreign regulatory agencies. Our component suppliers are also required to meet certain standards applicable to their manufacturing processes.

We cannot assure you that we or our component suppliers comply or can continue to comply with all regulatory requirements. The failure by us or one of our component suppliers to achieve or maintain compliance with these requirements or quality standards may disrupt our ability to supply products sufficient to meet demand until compliance is achieved or, with a component supplier, until a new supplier has been identified and evaluated. Our or our component supplier's failure to comply with applicable regulations could cause sanctions to be imposed on us, including warning letters, fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delays, suspension or withdrawal of approvals or clearances, license revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, which could harm our business. We cannot assure you that if we need to engage new suppliers to satisfy our business requirements, we can locate new suppliers in compliance with regulatory requirements. Our failure to do so could have a material adverse effect on our business.

In the European Union, we must maintain certain International Organization for Standardization, or ISO, certifications to sell our products and must undergo periodic inspections by notified bodies, including the British Standards Institution, to obtain and maintain these certifications. If we fail these inspections or fail to meet these regulatory standards, our business could be materially adversely affected.

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Healthcare cost containment pressures and legislative or administrative reforms resulting in restrictive coverage and reimbursement practices of third-party payers could decrease the demand for our products, the prices that customers are willing to pay for those products and the number of procedures performed using our devices, which could have an adverse effect on our business.

Our products are purchased principally by hospitals and stand-alone peripheral intervention practices, which typically bill various third-party payers, including governmental programs, such as Medicare and Medicaid, private insurance plans and managed care plans, for the healthcare services provided to their patients. The ability of our customers to obtain appropriate coverage and reimbursement for our products and services from government and private third-party payers is critical to our success. The availability of coverage and reimbursement affects which products customers purchase and the prices they are willing to pay.

Reimbursement varies from country to country, state to state and plan to plan and can significantly influence the acceptance of new products and services. Certain private third-party payers may view some procedures using our products as experimental and may not provide coverage. Third-party payers may not cover and reimburse the procedures using our products in whole or in part in the future, or payment rates may not be adequate, or both. Further, the adequacy of coverage and reimbursement by third-party payers is also related to billing codes to describe procedures performed using our products. Hospitals and physicians use several billing codes to bill for such procedures. Third-party payers may not continue to recognize the billing codes available for use by our customers.

Reimbursement rates are unpredictable, and we cannot project how our business may be affected by future legislative and regulatory developments. Future legislation or regulation, or changing payment methodologies, may have a material adverse effect on our business, and reimbursement may not be adequate for all customers. From time to time, typically on an annual basis, payment amounts are updated and revised by third-party payers. Because the cost of our products generally is recovered by the healthcare provider as part of the payment for performing a procedure and not separately reimbursed, these updates could directly impact the demand for our products. For example, in July 2013, the Centers for Medicare and Medicaid Services, or CMS, proposed reimbursement changes that would have decreased reimbursement for procedures in an office-based facility. Although CMS chose not to implement those changes in 2013, we cannot assure you that CMS will not take similar actions in the future.

The Medicare program is subjected to annual updates to physician payments. This is performed using a prescribed statutory formula. The Protecting Access to Medicare Act of 2014, signed into law in April 2014, provided for a 0.5% update from 2013 payment rates under the Medicare Physician Fee Schedule through 2014 and a 0% update from January 1 until April 1, 2015. The Medicare Access and CHIP Reauthorization Act of 2015, signed into law in April 2015, lays out annual updates to payments for at least the next 10 years: payment rates will be updated by 0.5% for July 1, 2015 through December 31, 2015, and then annually through 2019; the law then provides a 0% update from 2020 through 2025. Beginning in 2026, payment rates will be updated either by 0.25% annually for providers participating in non-alternative payment models or by 0.75% annually for providers participating in alternative payment models. In addition, the Medicare physician fee schedule has been adopted by some private payers into their plan specific physician payment schedule. We cannot predict how pending and future healthcare legislation will impact our business. Any changes in coverage and reimbursement that further restricts coverage of our products or lowers reimbursement for procedures using our devices could materially affect our business.

After we develop new products or seek to market our products for new approved or cleared indications, we may find limited demand for the product unless government and private third-party payers provide adequate coverage and reimbursement. Even with reimbursement approval and coverage by government and private payers, providers submitting reimbursement claims may face delay in payment if there is confusion by providers regarding the appropriate codes to use in seeking reimbursement. Such delays may create an unfavorable impression within the marketplace regarding the level of reimbursement or coverage available for our products.

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Demand for our products or new approved indications for our existing products may fluctuate over time if federal or state legislative or administrative policy changes affect coverage or reimbursement levels for our products or the services related to our products. In the U.S., there have been and we expect there will continue to be legislative and regulatory proposals to change the healthcare system, such as the potential repeal of the PPACA, some of which could significantly affect our business. It is uncertain what impact the newly elected U.S. presidential administration will have on health care spending including a campaign promise to repeal the PPACA. If enacted and implemented, any measures to restrict health care spending could result in decreased revenue from our products and decreased potential returns from our research and development initiatives. Other legislative or administrative reforms to the U.S. or international reimbursement systems in a manner that significantly reduces reimbursement for procedures using our medical devices or denies coverage for those procedures could have a material adverse effect on our business.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse and health information privacy and security laws and regulations and equivalent local laws in the foreign jurisdictions in which we operate and, if we cannot fully comply with such laws, could face substantial penalties.

Various broad federal and state healthcare fraud and abuse laws may directly or indirectly affect our operations. Such laws include the federal Anti-Kickback Statute in the U.S. and related state and international anti-kickback laws. The federal Anti-Kickback Statute prohibits any person from knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, to induce or reward either the referral of an individual, or the furnishing, purchasing, leasing or ordering of, or arranging for or recommending the furnishing, purchasing, leasing or ordering of an item or service, for which payment may be made under federal healthcare programs, such as Medicare and Medicaid. A person may be found guilty of violating the statute without actual knowledge of the statute or specific intent to violate it. The federal Stark law and self-referral prohibitions under analogous state laws restrict referrals by physicians and, sometimes, other healthcare providers, practitioners and professionals, to entities with which they have indirect or direct financial relationships for furnishing of designated health services. The federal False Claims Act prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment to Medicare, Medicaid or other third-party payers that are false or fraudulent. The government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act or federal civil money penalties statute. HIPAA created federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. These healthcare fraud and abuse laws are subject to evolving interpretations by various federal and state enforcement and regulatory authorities. Under current interpretations of the federal False Claims Act and certain similar state laws, some of these laws also may be subject to enforcement in a qui tam lawsuit brought by a private party "whistleblower," with or without the intervention of the government. Whistleblowers are entitled to be paid a portion of the judgment or settlement amount and therefore have financial incentives to file these cases.

If our operations, including our laser system placement and disposable products sales and marketing programs, clinical research or consulting arrangements with physicians, are found to violate these laws and are not protected under a statutory exception or regulatory safe harbor provision, we, our officers or our employees may be subject to civil and/or criminal penalties, including large monetary penalties, damages, fines, imprisonment and exclusion from Medicare and other federal healthcare program participation. Exclusion would preclude our products from use in treatment of Medicare or other federal healthcare program patients and could negatively impact sales of our products. If federal or state investigations or enforcement actions occur, our business and financial condition would be harmed.

There has been a recent trend of increased federal and state regulation of payments made to physicians. The PPACA imposes reporting and disclosure requirements on medical device and drug manufacturers for any "transfer of value" made or distributed to physicians and teaching hospitals. Medical device and drug manufacturers are also required to report and disclose any investment interests held by physicians and their immediate family members

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during the preceding calendar year. Failure to submit required information or the submission of incorrect information may result in significant civil monetary penalties. Manufacturers must submit reports providing payment data for a calendar year by the 90th day of the subsequent calendar year. Some states, including California, Massachusetts and Vermont, have enacted statutes with various requirements, such as implementation of compliance programs, and the tracking and reporting of gifts, compensation and other remuneration to physicians. The shifting compliance environment and the need to build and maintain robust and expandable systems to comply with multiple jurisdictions with different compliance and/or reporting requirements increases the possibility that a healthcare company may run afoul of one or more requirements. If we are investigated or found to have violated these laws, we may incur significant expenses, including fines and penalties.

In addition, HIPAA and other federal and state data privacy and security laws and equivalent local laws in the foreign jurisdictions in which we operate govern the collection, dissemination, security, use and confidentiality of patient-identifiable health information. The costs of complying with privacy and security-related legal and regulatory requirements may be burdensome, and if we do not comply with existing or new federal or state laws and regulations related to patient health information, we could be subject to criminal or civil sanctions and any resulting liability could adversely affect our business.

If we fail to obtain regulatory approvals in other countries for our products, we cannot market our products in those countries, which could harm our business.

The requirements governing the conduct of clinical trials and manufacturing and marketing of our products, new products, or additional indications for our existing products outside the U.S. vary widely from country to country. Foreign approvals may take longer to obtain than FDA approvals and can require additional testing and different clinical trial designs. Foreign regulatory approval processes include all of the risks associated with the FDA approval processes. Some foreign regulatory agencies also must approve the reimbursement policies related to specific products. We have had difficulties in the past in obtaining reimbursement approvals for our products in Europe and are seeking regulatory and reimbursement approval for certain of our products in Japan and other countries. We cannot assure you that we will receive this approval or that revenue in Japan and other countries will increase if we receive it. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively influence the regulatory process in others. We may not file for regulatory approvals and may not receive necessary approvals to market our existing products in any foreign country. If we fail to comply with these regulatory requirements or fail to obtain and maintain required approvals in any foreign country, we cannot sell our products in that country and our ability to generate revenue could be materially adversely affected.

There are risks from having international operations.

For the year ended December 31, 2016, our revenue from international operations represented 17% of consolidated revenue. Changes in international political or economic conditions, war or other conflicts, currency exchange rates, foreign laws regulating the approval and sales of medical devices, foreign tax laws, export/import licenses or tariffs, other trade regulations or intellectual property protection could adversely affect our ability to market our products outside the U.S. Our international operations subject us to the extraterritorial effects of U.S. laws such as the Foreign Corrupt Practices Act. Any significant changes in the competitive, political, legal, regulatory, reimbursement or economic environment where we conduct international operations may have a material adverse impact on our business. To the extent we expand our international operations, we expect our sales and expenses denominated in foreign currencies to expand, therefore increasing the risk fluctuations in currency exchange rates will adversely affect us. We do not hedge against foreign currency fluctuations, which could result in reduced consolidated revenue or increased operating expenses.

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We use both a direct sales organization and distributors for sales of our products throughout most of the countries that comprise our international operations. The international sales and marketing efforts could fail to attain long-term success.

We face additional credit and compliance risks related to our international sales using foreign distributors.

We may not be able to collect all of the funds owed to us by our foreign distributors. Some foreign distributors may experience financial difficulties, including bankruptcy, which may hinder our collection of accounts receivable. We regularly review the collectability and creditworthiness of our foreign distributors when determining the payment terms for such distributors. If our uncollectible accounts exceed our expectations, this could adversely impact our operating results. In addition, failure by our foreign distributors to comply with the Foreign Corrupt Practices Act or similar laws, insurance requirements, or other contract terms could have a negative impact on our business. Failure to manage the risks related to our foreign distributors could adversely affect our operations and financial results.

The consequences of the 2016 U.K. “Brexit” vote may adversely affect our operations and financial results.

On June 23, 2016, the United Kingdom (“U.K.”) held a referendum in which voters approved withdrawal of the U.K. from the European Union (“E.U.”), commonly referred to as “Brexit”. As a result of the referendum, it is expected that the British government will begin negotiating the terms of the U.K.’s future relationship with the E.U. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and E.U. countries and increased regulatory complexities. These changes may adversely affect our operations and financial results.

If our manufacturing operations are interrupted, our results may be adversely affected.

Our ability to manufacture our products may be adversely affected by factors such as a failure to follow specific internal protocols and procedures, equipment malfunction, environmental factors or damage to one or more of our facilities. If an interruption in manufacturing occurs, we may be unable to quickly move to alternate means of producing affected products or to meet customer demand. If the interruption results from a failure to follow regulatory protocols and procedures, we may be required to recall affected products and may experience delays in resuming production of affected products due primarily to a need to obtain regulatory approvals. We may suffer loss of market share, which we may be unable to recapture, and harm to our reputation, which could adversely affect our results of operations and financial condition.

An interruption in or breach of security of our information or manufacturing systems, including the occurrence of a cyber incident or a deficiency in our cybersecurity, may cause a loss of business or damage to our reputation.

We rely on communications, information and manufacturing systems to conduct our business. Any failure, interruption, or cyber incident that impacts these systems could cause failures or disruptions in our customer relationship management or product manufacturing. A cyber incident is an intentional attack or an unintentional event that can include gaining unauthorized access to information systems to disrupt operations, corrupt data, or steal confidential information. The occurrence of any failures, interruptions, or cyber incidents could cause a loss of customer business or reputation and have a material effect on our business, financial condition, results of operations and cash flows.

Product liability and other claims against us may reduce demand for our products or result in substantial damages.

Our business exposes us to potential liability for risks that may arise from the clinical testing of our unapproved or cleared new products, the clinical testing of expanded indications for existing products, the use of our products by physicians and the manufacture and sale of any approved or cleared products. An individual may bring a

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product liability claim against us, including frivolous lawsuits, if one of our products causes, or merely appears to have caused, an injury. We maintain product liability insurance for \$25 million per occurrence with an annual aggregate maximum of \$25 million. We cannot assure, however, that product liability claims will not exceed our insurance coverage limits or that such insurance coverage limits will continue to be available on acceptable terms, or at all. Our insurers may also claim that certain claims are not within the scope of our product liability insurance. A product liability claim, recall, or other claim regarding uninsured liabilities or for amounts over insured liabilities could have a material adverse effect on our business. Any product liability claim or series of claims or class actions brought against us, with or without merit, could result in:

- liabilities that substantially exceed our insurance levels, which we would then be required to pay from other sources, if available;
- an increase of our product liability insurance rates or the inability to renew or obtain product liability insurance coverage in the future on acceptable terms, or at all;
- withdrawal of clinical trial volunteers or subjects;
- damage to our reputation and the reputation of our products;
- regulatory investigations that could require costly recalls or product modifications;
- litigation costs; and
- diversion of management's attention from managing our business.

Patients treated with our products often are seriously ill or have pacemaker or implantable cardioverter defibrillator ("ICD") leads embedded and surrounded by scar tissue within their chest. Patients treated with our products may suffer from severe infection, PAD, coronary artery disease, diabetes, high blood pressure, high cholesterol and other problematic conditions. During procedures or the clinical follow-up subsequent to procedures involving the use of our products, serious adverse events may occur and some patients may die. Serious adverse events or patient deaths involving the use of our products may subject us to product liability litigation, product recalls or other regulatory enforcement actions or limit our ability to grow our revenue, which could have a material adverse impact on our business.

Consumers, healthcare providers or others selling our products may make claims against us. We may be subject to claims against us even if an alleged injury is due to the actions of others. We rely on the expertise of physicians, nurses and other associated medical personnel to perform the medical procedures and related processes relating to our products. If these medical personnel are not properly trained or are negligent in using our products, the therapeutic effect of our products may be diminished or the patient may suffer injury or death, which may subject us to liability. An injury or death resulting from the activities of our suppliers may serve as a basis for a claim against us.

We maintain policies and procedures and require training designed to educate our employees that they should not promote our products in an off-label promotion fashion. However, we cannot prevent a physician from using our products for any off-label applications. If injury to a patient results from such use, we may become involved in a product liability suit, which may be expensive to defend. Even if we do not become involved in a suit, quality or safety issues could cause reputational harm, warning letters, product recalls or seizures, monetary sanctions, injunctions to halt manufacture and distribution of devices, civil or criminal sanctions, or withdrawal of existing approvals or clearances.

Although there is federal preemption for medical devices approved by the FDA under a PMA application that in some situations provides a shield against state tort product liability claims, Supreme Court decisions or federal legislation could reverse the exemption. If this preemption is removed, product liability claims may increase. Federal preemption for medical devices cleared through the 510(k) process is limited, if it exists at all.

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Environmental and health safety laws may result in liabilities, expenses and restrictions on our operations.

Federal, state, local and foreign laws regarding environmental protection, hazardous substances and human health and safety may adversely affect our business. Using hazardous substances in our operations exposes us to the risk of accidental injury, contamination or other liability from the use, storage, importation, handling, or disposal of hazardous materials. If our or our suppliers' operations result in the contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and fines, and any liability could significantly exceed our insurance coverage and have a material adverse effect on our financial condition. We maintain insurance for certain environmental risks, subject to substantial deductibles; however, we cannot assure you we can continue to maintain this insurance in the future at an acceptable cost or at all. Future changes to environmental and health and safety laws could cause us to incur additional expenses or restrict our operations.

We depend on attracting, retaining and developing key management, clinical, scientific and sales and marketing personnel, and losing these personnel could impair the development and sales of our products.

Our success depends on our continued ability to attract, retain, develop and motivate highly qualified management, clinical, scientific and sales and marketing personnel. Except for our chief executive officer, we do not have employment agreements with our employees. Our employees are employed "at will," and each employee can terminate his or her employment with us at any time. As a condition of employment, our employees sign a confidentiality and trade secrets agreement that precludes them, upon termination of their employment, from disclosing any proprietary information, recruiting our employees or working for a competitor. We also have agreements with some of our officers that provide for the payment of either two years' salary plus bonus or one year's salary plus bonus if the officer's employment ends in certain circumstances. The agreements also prohibit the officer from competing with us and soliciting our employees and customers if termination of employment occurs. The enforceability of these agreements depends on the circumstances at the time of separation, and the agreements may be difficult to enforce. We do not carry key person insurance covering members of senior management. The competition for qualified personnel in the medical device industry is intense. We will need to hire additional personnel as we continue to expand our development activities and drive sales of our products. We may not attract, retain and develop quality personnel on acceptable terms due to the competition for such personnel.

Consolidation in the healthcare industry could have an adverse effect on our revenue and results of operations.

Many healthcare industry companies, including healthcare systems, are consolidating to create new companies with greater market power. As the healthcare industry consolidates, competition to provide goods and services to industry participants will become more intense. These industry participants may try to use their market power to negotiate price concessions or reductions for medical devices that incorporate components produced by us. If we reduce our prices because of consolidation in the healthcare industry, our revenue would decrease and our consolidated earnings, financial condition, or cash flows would suffer.

If we make additional acquisitions, we could incur significant costs and encounter difficulties that harm our business.

We may acquire companies, products, or technologies in the future. If we engage in such acquisitions, we may incur significant transaction and integration costs and have difficulty integrating the acquired personnel, operations, products or technologies or otherwise realizing synergies or other benefits from the acquisitions. The integration process could result in the loss of key employees, loss of key customers, loss of key vendors, decreases in revenue and increases in operating costs, as well as the disruption of our business. Acquisitions may dilute our earnings per share, disrupt our ongoing business, distract our management and employees, increase our expenses, subject us to liabilities and increase our risk of litigation, all of which could harm our business. If we use cash to acquire companies, products or technologies, it may divert resources otherwise available for other purposes or

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increase our debt. If we use our common stock to acquire companies, products or technologies, we may experience a change of control or our stockholders may experience substantial dilution or both.

A U.S. and global economic downturn could adversely affect our operating results, financial condition, or liquidity.

We are subject to risks arising from adverse changes in domestic and global economic conditions, including recession or economic slowdown and disruption of credit markets. Over the past several years, the global credit and capital markets have experienced extreme volatility and disruption. The strength of the U.S. and global economy is uncertain, and the U.S. may experience slowed growth or another recession. Turbulence in the financial markets and general economic uncertainties may make it more difficult and more expensive for hospitals and health systems to obtain credit, which would contribute to pressures on our operating margin, resulting from rising supply costs, reduced investment income and philanthropic giving, increased interest expense, reimbursement pressure, reduced elective healthcare spending and uncompensated care. In such circumstances, we expect many of our customers would continue to scrutinize costs, trim budgets and look for opportunities to further reduce or slow spending.

The potential decline in federal and state revenues that may result from such conditions may create additional pressures to contain or reduce reimbursements for our products from Medicare, Medicaid and other government-sponsored programs. Increasing job losses or slow improvement in the unemployment rate in the U.S. has and may continue to result in a smaller percentage of patients being covered by an employer group health plan and a larger percentage being covered by lower paying Medicare, Medicaid and health plans offered through PPACA exchanges.

Further, a strengthening of the U.S. dollar or other economic event may adversely affect the results of our international operations when those results are translated into U.S. dollars. Disruptions in the credit markets could impede our access to capital, which could further adversely affect us if we cannot maintain our current credit ratings. If we cannot obtain financing, we may need to defer capital expenditures or seek other sources of liquidity, which may not be available to us on acceptable terms, if at all. All of these factors related to the global economic situation, which are beyond our control, could negatively affect our business, results of operations, financial condition and liquidity.

Risks Related to Our Debt

We may not have the cash necessary to satisfy our cash obligations under our outstanding 2.625% Convertible Senior Notes due 2034, our term loan facility or our revolving loan facility, and our future debt may contain limitations on our ability to satisfy our cash obligations under the notes, the term loan facility or the revolving loan facility.

We incurred \$230 million in aggregate principal amount of senior indebtedness in June 2014 when we issued our 2.625% Convertible Senior Notes due 2034, or the Notes. The Notes bear cash interest payable semiannually at a rate of 2.625% per year and are convertible at any time, initially at a price of approximately \$31.35 per share. The conversion price is subject to adjustment upon the occurrence of certain events including a fundamental change as defined in the indenture agreement. The Notes mature on June 1, 2034, unless earlier converted, redeemed by us, or repurchased in accordance with terms of the Notes. On each of June 5, 2021, June 5, 2024 and June 5, 2029 and upon a fundamental change, the holders may require us to repurchase some or all of their Notes for cash at a repurchase price equal to 100% of the principal amount of the Notes being repurchased, plus accrued and unpaid interest, if any, to, but excluding, the relevant repurchase date. We may not have sufficient funds to satisfy such cash obligations and, in such circumstances, may not be able to arrange the necessary financing to satisfy such cash obligations on favorable terms or at all. In addition, our ability to satisfy such cash obligations may be limited by applicable law or the terms of other instruments governing our indebtedness, including debt that we may incur in the future that is secured or senior in right of payment to the Notes. Our failure to pay such cash

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obligations would constitute an event of default under the indenture governing the Notes, which in turn could constitute an event of default under any of our outstanding indebtedness, thereby resulting in the acceleration of such indebtedness (including the Notes) and required prepayment and further restrict our ability to satisfy such cash obligations.

On December 7, 2015, we entered into a term credit and security agreement and a revolving credit and security agreement. The term credit and security agreement provides for a five-year \$60 million term loan facility and the revolving credit and security agreement provides for a five-year \$50 million revolving loan facility. Our obligations under these agreements are secured by a lien on substantially all of our assets. Interest-only payments are due during the first 24 months of the term loan facility, with principal payments beginning thereafter in equal monthly installments until maturity, provided that we may postpone making principal payments for an additional 12 months if certain conditions are met and the lenders and its agent agree to such extension. We may not have sufficient funds to satisfy such cash obligations and, in such circumstances, may not be able to arrange the necessary financing to satisfy such cash obligations on favorable terms or at all. In addition, our ability to satisfy such cash obligations may be limited by applicable law or the terms of other instruments governing our indebtedness, including debt that we may incur in the future that is senior in right of payment to the term loan facility or revolving loan facility. Our failure to pay such cash obligations would constitute an event of default under the term credit and security agreement and the revolving credit and security agreement, which in turn could constitute an event of default under any of our outstanding indebtedness (including the Notes), thereby resulting in the acceleration of such indebtedness and required prepayment and further restricting our ability to satisfy such cash obligations.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the Notes, the term loan facility and the revolving loan facility, depends on our future performance, which is subject to prevailing economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Our term loan facility and revolving loan facility contain financial covenants that require us to maintain certain financial metrics and restrictive covenants that limit our flexibility. A breach of those covenants may cause us to be in default under the facilities and our other indebtedness, and our lenders could foreclose on our assets.

The term credit and security agreement and revolving credit and security agreement require us to maintain minimum cash and cash equivalents of not less than \$10 million and achieve net revenues in excess of certain specified thresholds. A failure to increase our revenue levels or an inability to control costs or capital expenditures could negatively impact our ability to meet these financial covenants. If we breach such covenants or any of the restrictive covenants described below, the lenders could either refuse to lend funds to us under the revolving loan facility or accelerate the repayment of any outstanding borrowings under the term loan facility and revolving loan facility. We may not have sufficient assets to repay such indebtedness upon a default. If we are unable to repay the indebtedness, the lenders could initiate a bankruptcy proceeding or collection proceedings with respect to our assets.

The term credit and security agreement and revolving credit and security agreement also contain certain restrictive covenants that limit and in some circumstances prohibit, our ability to, among other things, incur additional debt, sell, lease or transfer our assets, pay dividends on our common stock, make capital expenditures and investments, guarantee debt or obligations, create liens, repurchase our common stock, enter into transactions with our affiliates and enter into certain merger, consolidation or other reorganization transactions. These restrictions could limit our ability to obtain future financing, make acquisitions or needed capital expenditures, withstand downturns in our business or the economy in general, conduct operations or otherwise take advantage of business opportunities that may arise, any of which could place us at a competitive disadvantage relative to our competitors.

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Our debt could adversely affect our financial health and prevent us from fulfilling our debt service and other obligations.

As of December 31, 2016, our total consolidated indebtedness was approximately \$314.7 million, consisting of \$230.0 million principal amount of Notes, \$60.0 million outstanding under our term loan facility and \$24.7 million outstanding under our revolving loan facility. Our debt could have important consequences to you. For example, it could:

- due to financial and other covenants contained in the agreements, make it more difficult for us to satisfy our financial obligations under our debt and our contractual and commercial commitments and increase the risk that we may default on our debt obligations;
- require us to use a substantial portion of our cash flow from operations to pay interest and principal on our debt, which would reduce the funds available for working capital, capital expenditures and other general corporate purposes;
- limit our ability to obtain additional financing for working capital, capital expenditures, acquisitions and other investments, or general corporate purposes, which may limit the ability to execute our business strategy;
- heighten our vulnerability to downturns in our business, our industry or in the general economy and restrict us from exploiting business opportunities or making acquisitions;
- place us at a competitive disadvantage compared to those of our competitors that may have less debt;
- limit management's discretion in operating our business;
- limit our flexibility in planning for, or reacting to, changes in our business, the industry in which we operate or the general economy; and
- result in higher interest expense if interest rates increase and we have outstanding floating rate borrowings.

We may incur substantial additional debt in the future. If new debt or other liabilities are added to our current debt levels, the related risks that we now face could intensify.

Risks Related to Our Common Stock

Our stock price may continue to be volatile.

The market price of our common stock, similar to other medical device companies, has been, and is likely to continue to be, highly volatile. The trading price of our stock varied from a low of \$11.42 to a high of \$25.39 in 2016. The following factors may significantly affect the market price of our common stock:

- actual or anticipated fluctuations in our operating results and the operating results of competitors;
- announcements of technological innovations, new products or acquisitions by us or our competitors;
- results of clinical trials or studies by us or our competitors;
- governmental regulation;
- developments regarding patents or proprietary rights, including assertions our patents are invalid or our products infringe the intellectual property rights of others;
- public concern regarding the safety of products developed by us or others;
- the initiation or cessation in coverage of our common stock, or changes in estimates or recommendations concerning us or our common stock, by securities analysts and results that differ from analysts' estimates;
- changes in accounting principles;
- past or future management changes;
- litigation;
- adverse developments in any government inquiry or investigation;
- changes in market and economic conditions;

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- the possibility of our financing future operations through additional issuances of equity securities, which may cause dilution to existing stockholders; and
- any of the other events described in these “Risk Factors.”

In the past, following periods of volatility in the market price of a company’s securities, securities class action litigation has often been brought against that company. Following the decrease in our stock price in July 2015, we became the target of securities litigation. Due to the potential volatility of our stock price, we may be the target of securities litigation in the future. Securities litigation could cost substantial amounts and divert management’s attention and resources from our business and could require us to make substantial payments to settle those proceedings or satisfy any judgments that may be reached against us.

If securities or industry analysts issue an adverse or misleading opinion regarding our stock or do not publish research or reports about our business, our stock price could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about our business and us. We do not control these analysts or the content and opinions included in their reports. The price of our common stock could decline if one or more analysts downgrade our common stock or if those analysts issue other unfavorable commentary or cease publishing reports about our business or us. If one or more analysts cease coverage of our company or fail to regularly publish reports about our company, we could lose visibility in the financial market, which could cause our stock price to decline. Further, securities or industry analysts may elect not to provide research coverage of our common stock and such lack of research coverage may adversely affect the market price of our common stock.

We have never paid cash dividends on our capital stock, and we do not anticipate paying any dividends in the foreseeable future.

We have never paid cash dividends on our capital stock and intend to retain our future earnings to fund the development and growth of our business. Capital appreciation of our common stock will be the sole source of gain on our common stock for the foreseeable future.

The issuance of additional shares of our common stock in connection with acquisitions, conversion of the Notes or otherwise will dilute all other stockholdings and could affect the market price of our common stock.

As of December 31, 2016, we had 61.5 million shares of our common stock authorized but unissued and not reserved for issuance under our option and compensation plans or under other convertible or derivative instruments. We may issue all of these shares without any action or approval by our stockholders. We may pursue acquisitions of other companies and may issue shares of our common stock in connection with these acquisitions. Any shares of our common stock issued in connection with equity or convertible debt offerings, acquisitions, the conversion of the Notes, the exercise of stock options or restricted stock units, or otherwise may involve substantial dilution to our existing stockholders.

Protections against unsolicited takeovers in our charter and bylaws may reduce or eliminate our stockholders’ ability to resell their shares at a premium over market price.

Our charter and bylaws contain provisions relating to issuance of preferred stock, special meetings of stockholders and advance notification procedures for stockholder proposals that could have the effect of discouraging, delaying or preventing an unsolicited change in the control of our company. Our stockholders elect our board of directors for staggered three-year terms, which prevents stockholders from electing all directors at each annual meeting and may have the effect of discouraging, delaying or preventing a change in control.

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We are subject to Section 203 of the Delaware General Corporation law, or Section 203, which in general and subject to exceptions, prohibits a publicly held Delaware corporation from engaging in a “business combination” (as defined in Section 203) with an “interested stockholder” (as defined in Section 203) for a period of three years after the transaction in which the person became an interested stockholder, unless certain conditions are met. Section 203 may discourage, delay, or prevent an acquisition of our company even at a price our stockholders may find attractive.

ITEM 1B. *Unresolved Staff Comments*

None.

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ITEM 2. *Properties*

The majority of our domestic operations are located in an 80,000 square foot building in Colorado Springs, Colorado. The facility has approximately 17,000 square feet of manufacturing space that contains our manufacturing operations for all products except for the AngioSculpt and Stellarex products, which are manufactured in Fremont, California. We also occupy 20,000 square feet adjacent to the headquarters for administrative functions. The term of both leases in Colorado Springs is through September 2023. In addition, we lease a 6,500 square foot office in Broomfield, Colorado, which lease expires in December 2017.

In addition to the leased facilities described above, we continue to occupy a building that we own in Colorado Springs, Colorado. This facility, which we purchased in 2005, contains approximately 24,000 square feet of usable space, and maintains manufacturing capabilities for business continuity contingency planning.

In June 2014, with the acquisition of AngioScore, we acquired a leased facility in Fremont, California, which was comprised of approximately 42,000 square feet, housing manufacturing, research and development, and administrative functions. The lease expired in May 2016. We have vacated approximately 20,000 square feet of the leased space and established a new lease for the remaining approximately 22,000 square feet; the new lease expires in May 2021.

In January 2015, with the acquisition of the Stellarex DCB platform, we acquired a second leased facility in Fremont, California, which contains approximately 23,000 square foot of manufacturing space. The lease expires in May 2021.

In March 2015, we leased a facility in Maple Grove, Minnesota, which is comprised of approximately 36,000 square feet, for research and development and administrative functions. The lease expires in August 2025.

Spectranetics International B.V. leases 6,265 square feet in Leusden, The Netherlands. The facility houses our operations for the marketing and distribution of products in Europe and the Middle East, and the lease expires August 31, 2021. Spectranetics Deutschland GmbH leases an office in Germany under a lease that expires in August 2018. With the acquisition of the Stellarex DCB platform, we established a sales and clinical office in Paris, France where Spectranetics International B.V. leases approximately 1,900 square feet with a lease expiration date of June 2024.

Our United States Medical segment uses the properties described above that are located in the United States and our International Medical segment uses the properties described above that are located in Europe. We believe the current facilities are adequate to meet our requirements.

ITEM 3. *Legal Proceedings*

For a discussion of our legal proceedings, please refer to Note 13, "Commitments and Contingencies," to our consolidated financial statements in Part IV, Item 15, "Exhibits and Financial Statement Schedules."

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**

Our common stock is traded on the NASDAQ Global Select Market under the symbol "SPNC." The table below sets forth the high and low sales prices for our common stock as reported on the NASDAQ Global Select Market for each calendar quarter in 2016 and 2015.

	<u>High</u>	<u>Low</u>
Year Ended December 31, 2015		
1st Quarter	\$ 36.44	\$ 31.77
2nd Quarter	35.13	23.01
3rd Quarter	25.67	11.55
4th Quarter	15.77	10.78
Year Ended December 31, 2016		
1st Quarter	\$ 15.94	\$ 11.42
2nd Quarter	19.82	14.50
3rd Quarter	25.39	19.24
4th Quarter	25.14	20.85

Number of Record Holders; Dividends

The closing sales price of our common stock on February 21, 2017 was \$27.05. On February 21, 2017, we had 384 stockholders of record. This number was derived from our stockholder records and does not include beneficial owners of our common stock whose shares are held in the names of various dealers, clearing agencies, banks, brokers, nominees and other fiduciaries.

We have not paid cash dividends on our common stock in the past and do not expect to do so in the foreseeable future. The payment of dividends in the future will be at the discretion of the Board of Directors and will depend on our financial condition, results of operations, capital requirements and such other factors as the Board of Directors deems relevant. Our term loan facility and revolving loan facility limit our ability to pay cash dividends without the lenders' prior approval.

Recent Sales of Unregistered Equity Securities

During 2016, we did not issue or sell any shares of our common stock or other equity securities of our company without registration under the Securities Act of 1933, as amended.

Issuer Purchases of Equity Securities

We repurchased none of our equity securities during the quarter ended December 31, 2016.

Securities Issuable Under Equity Compensation Plans

For a discussion of the securities authorized under our equity compensation plans, see Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," which incorporates by reference the information to be disclosed in our definitive proxy statement for our 2017 Annual Meeting of Stockholders.

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ITEM 6. Selected Financial Data

The following selected consolidated financial data, as of and for each year in the five-year period ended December 31, 2016, is derived from our consolidated financial statements. The information set forth below should be read in conjunction with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the consolidated financial statements and notes thereto in Part IV, Item 15 of this annual report.

	Year Ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share data)				
<i>Statement of Operations Data:</i>					
Revenue	\$ 270,823	\$ 245,956	\$ 204,914	\$ 158,811	\$ 140,285
Cost of products sold	68,326	63,134	53,459	41,356	37,927
Selling, general and administrative	164,289	143,355	128,129	91,750	82,254
Research, development and other technology	67,480	64,436	28,675	22,080	16,846
Medical device excise tax (1)	—	3,465	2,834	2,138	—
Acquisition transaction, integration and legal costs (2)	1,922	29,472	17,288	—	311
Intangible asset amortization (2)	12,227	13,275	6,335	901	—
Contingent consideration expense (2)	214	2,671	2,070	867	—
Reduction in fair value of contingent consideration liability (2)	—	(25,819)	(1,064)	(5,165)	—
Intangible asset impairment (2)	—	2,496	4,138	4,490	—
Operating (loss) income	(43,635)	(50,529)	(36,950)	394	2,947
Interest (expense) income, net (3)	(13,295)	(7,850)	(4,062)	3	8
Foreign currency transaction (loss) gain	(403)	(369)	(211)	13	5
(Loss) income before income taxes	(57,333)	(58,748)	(41,223)	410	2,960
Income tax expense (benefit) (4)	787	726	(322)	780	734
Net (loss) income	\$ (58,120)	\$ (59,474)	\$ (40,901)	\$ (370)	\$ 2,226
Net (loss) income per share, basic	\$ (1.35)	\$ (1.40)	\$ (0.98)	\$ (0.01)	\$ 0.06
Net (loss) income per share, diluted	\$ (1.35)	\$ (1.40)	\$ (0.98)	\$ (0.01)	\$ 0.06
Weighted average common shares outstanding:					
Basic	42,935	42,430	41,679	38,941	34,377
Diluted	42,935	42,430	41,679	38,941	35,767

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	As of December 31,				
	2016	2015	2014	2013	2012
	(In thousands)				
Balance Sheet Data:					
Working capital (5)	\$ 68,590	\$ 94,600	\$ 128,791	\$ 144,160	\$ 49,321
Cash and cash equivalents (5)	57,237	84,594	95,505	128,395	37,775
Property and equipment, net	44,827	44,719	33,819	28,281	27,006
Total assets (2) (5)	430,078	467,999	457,838	216,712	110,456
Long-term obligations (3)	288,813	287,351	254,338	3,487	1,566
Stockholders' equity	74,323	116,969	162,157	190,000	88,697

- (1) On January 1, 2013, we began paying a medical device excise tax that the PPACA imposes on medical device manufacturers on their sales in the U.S. of certain devices. In December 2015, legislation was enacted that suspended the medical device excise tax for 2016 and 2017.
- (2) In January 2013, we acquired certain products from Upstream Peripheral Technologies Ltd. ("Upstream"). In June 2014, we acquired AngioScore. In January 2015, we acquired Stellarex. See further discussion of these expenses in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 2, "Business Combinations," to our consolidated financial statements in Part IV, Item 15 of this annual report.
- (3) In June 2014, we completed the sale of \$230 million aggregate principal amount of Notes due in 2034. In December 2015, we entered into a five-year term loan facility. Interest expense in 2016, including amortization of debt issuance costs, was related to the term loan facility and the Notes. Interest expense in 2015 and 2014, including amortization of debt issuance costs, was primarily related to the Notes. See further discussion of these Notes in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations," and in Note 11, "Debt," to our consolidated financial statements in Part IV, Item 15 of this annual report.
- (4) Income tax benefit for the year ended December 31, 2014 included a tax benefit of \$1.3 million resulting from a reduction in the valuation allowance against our deferred tax assets related to the acquisition of AngioScore. See further discussion of this tax benefit in Note 12, "Income Taxes," to our consolidated financial statements in Part IV, Item 15 of this annual report.
- (5) In May 2013, we completed an offering of 5,462,500 shares of our common stock at a public offering price of \$18.00 per share minus the underwriters' discount of \$1.08 per share. We received net proceeds of approximately \$92.0 million, after deducting underwriting discounts and commissions and offering expenses (approximately \$0.4 million).

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

The following discussion should be read in conjunction with our consolidated financial statements and the related notes contained elsewhere in this annual report on Form 10-K and in our other SEC filings. The following discussion may contain forward-looking statements that constitute our expectations or forecasts of future events as of the date this report was filed with the SEC and are not statements of historical fact. You are cautioned not to place undue reliance on these forward-looking statements and to note that they speak only as of the date hereof. Factors that could cause actual results to differ materially from those in the forward-looking statements are included in the risk factors listed from time to time in our filings with the SEC and in Item 1A, "Risk Factors." See the introduction to Part I of this annual report.

Corporate Overview

We develop, manufacture, market and distribute single-use disposable medical devices and a proprietary laser system used in minimally invasive procedures within the cardiovascular system. Our products are used to cross, prepare, and treat arterial blockages in the legs and heart and to remove pacemaker and defibrillator cardiac leads. We believe that the diversified nature of our business allows us to respond to a wide range of physician and patient needs. The innovative products and services we offer are divided into three categories:

- Vascular Intervention ("VI"): Our broad portfolio of VI devices consists of laser and aspiration catheters, AngioSculpt scoring balloon catheters, support catheters, and the Stellarex DCB catheters, which we sell in Europe and currently are not approved for sale in the U.S.
- Lead Management ("LM"): We are a global leader in devices for the removal of pacemaker and defibrillator cardiac leads. Our primary LM devices consist of our excimer laser sheaths, non-laser mechanical sheaths, cardiac lead management accessories for the removal of pacemaker and defibrillator cardiac leads, and our Bridge Occlusion Balloon.
- Laser, service, and other: Our proprietary excimer laser system, the CVX-300, is approved in approximately 50 countries for use in multiple minimally invasive cardiovascular procedures. We sell, rent and service our CVX-300 laser systems.

During the year ended December 31, 2016, our disposable products generated 94% of our revenue, of which VI products accounted for 71% and LM products accounted for 29%. The remainder of our revenue is derived from sales and rental of our laser system related services.

Approximately half of our disposable product revenue is currently derived from products used with our proprietary CVX-300 excimer laser system. Our laser catheters contain up to 250 small diameter, flexible optical fibers that can access difficult to reach peripheral and coronary anatomy and produce evenly distributed laser energy at the tip of the catheter.

For an overview of our business, products, market opportunities, and clinical trials, please see Part I, Item I, "Business," of this annual report on Form 10-K.

Recent Developments

In April 2016, Professor Thomas Zeller presented the first interim analysis of 12-month interim data from the ILLUMENATE Global Study at the Charing Cross Symposium in London, England. The ILLUMENATE Global Study is a prospective, multicenter, single-arm study designed to assess the clinical performance of the Stellarex DCB in the superficial femoral and popliteal arteries. Subsequently, in June 2016, Dr. Prakash Krishnan presented the second interim analysis of 12-month data from the ILLUMENATE Global Study at the New Cardiovascular Horizons annual conference in New Orleans, Louisiana. Interim results from 220 patients (247 lesions) of the 371 patients enrolled demonstrated a primary patency rate of 90.3% at day 360 and 86.5% at day 365. Freedom from

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CD-TLR was 93.9% at both day 360 and day 365. These interim results include a larger number of patients than, and are consistent with, the initial ILLUMENATE Global Study 12-month interim analysis and the ILLUMENATE First-In-Human Study results. In January 2017, Professor Thomas Zeller presented the final 12 month results from the ILLUMENATE Global Study at the Leipzig Interventional Course (LINC) in Leipzig, Germany. Final results from the 371 patients demonstrated a primary patency rate of 81.4% at day 365. Freedom from clinically-driven TLR was 94.8% at day 365.

In August 2016, Professor Marianne Brodmann presented the final 12-month results of the DCB ILLUMENATE EU RCT at the Amputation Prevention Symposium in Chicago, Illinois. The EU RCT Trial enrolled 328 patients, 295 of whom were randomized to treatment with the DCB or a percutaneous transluminal angioplasty ("PTA"). The key results at day 365 include primary patency (per Kaplan-Meier survival estimates), which was 89.0% for the DCB group and 65.0% for the PTA group, and freedom from clinically-driven target lesion revascularization (per Kaplan-Meier survival estimates), which was 94.8% for the DCB group and 85.3% for the PTA group.

In May 2016, we received a warning letter from the FDA related to observed non-conformities with current GMP, as defined by the FDA, at our Colorado Springs, Colorado facility. In January 2016, following an inspection of certain of our manufacturing facilities from late 2015 to early 2016, the FDA issued a Form 483, List of Inspectional Observations, identifying certain observed non-conformities with current GMP. Following the receipt of the Form 483, we provided written responses to the FDA detailing corrective actions underway to address the FDA's observations. The FDA warning letter acknowledges the actions already taken by us to address the observations. We plan to continue to respond timely and fully to the FDA's requests and we are working diligently to fully remediate the FDA's observations regarding the Colorado Springs facility. We anticipate that we will incur incremental expenses ranging from approximately \$10 million to approximately \$15 million in 2017 in connection with remediating the warning letter. We are continuing to manufacture and ship disposable products from the Colorado Springs facility and we currently do not anticipate that customer orders will be impacted while we work to resolve the FDA's concerns. Until the violations are corrected, we may be subject to additional regulatory action by the FDA and foreign regulatory agencies, including recalls, delays, suspension or withdrawal of approvals or clearances, and fines or civil penalties.

In August 2016, we received European CE mark approval for AngioSculptX, our drug-coated percutaneous transluminal coronary angioplasty ("PTCA") scoring balloon catheter. AngioSculptX combines the AngioSculpt PTCA scoring balloon catheter with a drug coating. It is indicated for the treatment of hemodynamically significant coronary artery stenosis, including in-stent restenosis. In connection with the approval we made a \$5.0 million contingent consideration payment as further described in Note 2, "Business Combinations," to our consolidated financial statements and in Part IV, Item 15 of this annual report.

In October 2016, we submitted the Stellarex 0.014" IDE to the FDA for the planned 0.014" below-the-knee randomized clinical study. This purpose of this study is to evaluate the safety and effectiveness of the Stellarex 0.014" DCB for the treatment of lesions in below-the-knee arteries compared to a standard PTA catheter. We are working through the necessary testing with the FDA in order to obtain a conditional approval.

In November 2016, Dr. Sean Lyden presented the final 12-month results of the Stellarex DCB ILLUMENATE Pivotal Trial at the Transcatheter Cardiovascular Therapeutics (TCT) conference in Washington, D.C. The Pivotal Trial enrolled 300 patients, all of whom were randomized to treatment with the Stellarex DCB or a PTA. The key results at day 365 include primary patency (per Kaplan-Meier survival estimates), which was 82.3% for the DCB group and 70.9% for the PTA group, and freedom from CD-TLR (per Kaplan-Meier survival estimates), which was 93.6% for the DCB group and 87.3% for the PTA group. Additionally, the trial met its primary safety and effectiveness endpoints and demonstrated superiority to PTA on both. Concurrent with this announcement, we submitted our application for FDA PMA of the Stellarex DCB.

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Year Ended December 31, 2016 Compared with Year Ended December 31, 2015
Selected Consolidated Statements of Operations Data

The following tables present a summary of Consolidated Statements of Operations data for the years ended December 31, 2016 and December 31, 2015 based on the percentage of revenue for each line item, and the dollar and percentage change of each of the items. For a detailed discussion of each item, please see the explanations below.

(in thousands, except for percentages)	For the Year Ended December 31,					
	2016	% of revenue (1)	2015	% of revenue (1)	\$ Change	% Change
Revenue	\$ 270,823	100 %	\$ 245,956	100 %	\$ 24,867	10 %
Gross profit (2)	202,497	75 %	182,822	74 %	19,675	11 %
Operating expenses						
Selling, general and administrative	164,289	61 %	143,355	58 %	20,934	15 %
Research, development and other technology	67,480	25 %	64,436	26 %	3,044	5 %
Medical device excise tax	—	— %	3,465	1 %	(3,465)	(100)%
Acquisition transaction, integration and legal costs	1,922	1 %	29,472	12 %	(27,550)	(93)%
Intangible asset amortization	12,227	5 %	13,275	5 %	(1,048)	(8)%
Contingent consideration expense	214	— %	2,671	1 %	(2,457)	(92)%
Reduction in fair value of contingent consideration liability	—	— %	(25,819)	(10)%	25,819	(100)%
Intangible asset impairment	—	— %	2,496	1 %	(2,496)	(100)%
Total operating expenses	246,132	91 %	233,351	95 %	12,781	5 %
Operating loss	(43,635)	(16)%	(50,529)	(21)%	6,894	(14)%
Other expense						
Interest expense	(13,295)	(5)%	(7,850)	(3)%	(5,445)	69 %
Foreign currency transaction loss	(403)	— %	(369)	— %	(34)	9 %
Loss before income taxes	(57,333)	(21)%	(58,748)	(24)%	1,415	(2)%
Income tax expense (benefit)	787	— %	726	— %	61	8 %
Net loss	\$ (58,120)	(21)%	\$ (59,474)	(24)%	\$ 1,354	(2)%
 Worldwide installed base of laser systems	 1,511		 1,392		 119	

(1) Percentage amounts may not add due to rounding.

(2) Includes the impact of \$0.3 million of amortization of acquired inventory step-up in 2015.

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Revenue and gross margin

In the following discussion, we disclose all growth rates on an “as reported” basis, and we specify the growth rate on a “constant currency” basis only when it differs from the “as reported” growth rate. See the “Non-GAAP Financial Measures” section below for a discussion of our use of the constant currency financial measure. The following is a summary of revenue by product line for the years ended December 31, 2016 and December 31, 2015:

For the Year Ended December 31,						
(in thousands, except for percentages)	2016	% of revenue (1)	2015	% of revenue (1)	\$ change	% change
Revenue:						
Disposable products:						
Vascular Intervention	\$ 181,602	67%	\$ 160,480	65%	\$ 21,122	13%
Lead Management	73,265	27%	69,899	28%	3,366	5%
Total disposable products	254,867	94%	230,379	94%	24,488	11%
Laser, service, and other	15,956	6%	15,577	6%	379	2%
Total revenue	\$ 270,823	100%	\$ 245,956	100%	\$ 24,867	10%

(1) Percentage amounts may not add due to rounding.

Revenue increased \$24.9 million, or 10% (10% on a constant currency basis), from \$246.0 million for the year ended December 31, 2015 to \$270.8 million for the year ended December 31, 2016. The increase was primarily due to an increase in VI disposables revenue, described further below.

VI revenue, which includes revenue from products used in the peripheral and coronary vascular systems, increased \$21.1 million, or 13% (13% on a constant currency basis), from \$160.5 million for the year ended December 31, 2015 to \$181.6 million for the year ended December 31, 2016. The increase in VI revenue was driven primarily by unit volume increases in our peripheral atherectomy and coronary atherectomy products.

LM revenue, which includes revenue from excimer laser sheaths, mechanical sheaths, and cardiac lead management accessories for the removal of pacemaker and defibrillator cardiac leads, increased \$3.4 million, or 5% (5% on a constant currency basis), from \$69.9 million for the year ended December 31, 2015 to \$73.3 million for the year ended December 31, 2016. The growth was primarily due to revenue from mechanical tools, including our newly-introduced Bridge product, offset by a decrease in laser sheath revenue due to a decrease in unit volumes.

Laser, service, and other revenue increased \$0.4 million, or 2% (3% on a constant currency basis), from \$15.6 million for the year ended December 31, 2015 to \$16.0 million for the year ended December 31, 2016, primarily due to an increase in lasers placed during the year.

We placed 194 laser systems with new customers during the year ended December 31, 2016, compared with 190 during the year ended December 31, 2015. Of these laser placements, 119 lasers were newly manufactured during 2016, and 75 lasers were redeployed from previous institutions. The new placements during the year ended December 31, 2016 brought our worldwide installed base of laser systems to 1,511 (1,083 in the U.S.) as of December 31, 2016, compared to 1,392 (999 in the U.S.) as of December 31, 2015.

Geographically, revenue for the U.S. medical segment increased \$18.6 million, or 9%, from \$206.7 million for the year ended December 31, 2015 to \$225.3 million for the year ended December 31, 2016, primarily due to an increase in VI revenue. Revenue for the International Medical segment increased \$6.3 million, or 16% (16% on a constant currency basis), from \$39.3 million for the year ended December 31, 2015 to \$45.5 million for the year

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ended December 31, 2016 primarily due to an increase in VI revenue, which was principally driven by an increase in AngioSculpt and Stellarex revenue.

Gross margin was 75% for the year ended December 31, 2016, compared with 74% for the year ended December 31, 2015. Increased production efficiencies and a higher sales mix of disposable products were the primary factors that improved margins during 2016. These improvements were offset by unfavorable impacts of costs related to the FDA warning letter and product recall, as discussed further in Note 13, "Commitments and Contingencies," to our consolidated financial statements and in Part IV, Item 15 of this annual report.

Operating expenses

Total operating expenses increased \$12.8 million, or 5%, from \$233.4 million for the year ended December 31, 2015 to \$246.1 million for the year ended December 31, 2016. The following table shows the changes in operating expenses for the years ended December 31, 2016 and December 31, 2015:

(in thousands, except for percentages)	For the Year Ended December 31,					
	2016	% of revenue (1)	2015	% of revenue (1)	\$ change	% change
Operating Expenses:						
Selling, general and administrative	\$ 164,289	61%	\$ 143,355	58 %	\$ 20,934	15 %
Research, development and other technology	67,480	25%	64,436	26 %	3,044	5 %
Medical device excise tax	—	—%	3,465	1 %	(3,465)	(100) %
Acquisition transaction, integration and legal costs	1,922	1%	29,472	12 %	(27,550)	(93) %
Intangible asset amortization	12,227	5%	13,275	5 %	(1,048)	(8) %
Contingent consideration expense	214	—%	2,671	1 %	(2,457)	(92) %
Reduction in fair value of contingent consideration liability	—	—%	(25,819)	(10)%	25,819	(100) %
Intangible asset impairment	—	—%	2,496	1 %	(2,496)	(100) %
Total operating expenses	<u>\$ 246,132</u>	<u>91%</u>	<u>\$ 233,351</u>	<u>95 %</u>	<u>\$ 12,781</u>	<u>5 %</u>

(1) Percentage amounts may not add due to rounding.

Selling, general and administrative. Selling, general and administrative ("SG&A") expenses increased \$20.9 million, or 15%, from \$143.4 million for the year ended December 31, 2015 to \$164.3 million for the year ended December 31, 2016, primarily due to an increase in personnel expenses, as a result of the following:

- an increase in commission expense of approximately \$5.4 million on higher revenue;
- an increase of approximately \$5.3 million due to the expansion of our sales and marketing teams to support the launch of Stellarex DCB products;
- an increase of approximately \$3.7 million in stock-based compensation expense due to improved performance and our organizational growth; and
- an increase of approximately \$2.7 million related to our performance bonus plan.

Research, development and other technology. Research, development and other technology expenses increased \$3.0 million, or 5%, from \$64.4 million for the year ended December 31, 2015 to \$67.5 million for the year ended December 31, 2016. The increase in research, development and other technology expenses was primarily due to an increase in costs associated with the Stellarex DCB research, development and clinical studies of approximately \$2.0 million; an increase in costs of \$3.0 million in relation to the FDA warning letter described in

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Note 13, "Commitments and Contingencies," to our consolidated financial statements in Part IV, Item 15 of this annual report; and an increase of \$1.2 million in royalty expenses for certain of our products due to higher revenues for those products for the year ended December 31, 2016. The increase was partially offset by a decrease in clinical study costs of approximately \$0.7 million due to the approval of AngioSculptX under our drug coated AngioSculpt ("DCAS") program and cost savings of \$2.0 million in relation to costs deferred to address the warning letter. Costs included within research, development and other technology expenses are product development costs, clinical studies costs, warning letter remediation costs and royalty costs associated with various license agreements with third-party licensors.

Medical device excise tax. The Patient Protection and Affordable Care Act of 2010 ("PPACA") imposed a medical device excise tax on medical device manufacturers on their sales in the U.S. of certain devices, which was effective January 1, 2013. Legislation enacted in December 2015 suspended the medical device excise tax for 2016 and 2017, resulting in no expense incurred for the year ended December 31, 2016, compared with \$3.5 million for the year ended December 31, 2015.

Acquisition transaction, integration and legal costs. We incurred \$1.9 million of costs related to the AngioScore and Stellarex acquisitions for the year ended December 31, 2016, which was primarily related to legal fees associated with a breach of fiduciary duty and patent matters, further described in Note 13, "Commitments and Contingencies," to our consolidated financial statements in Part IV, Item 15 of this annual report.

For the year ended December 31, 2015, we incurred \$29.5 million of costs related to acquisitions. Of this amount, \$19.9 million comprised legal fees associated with the breach of fiduciary duty and patent matter. Stellarex acquisition costs of \$8.0 million primarily consisted of one-time costs associated with establishing in-house and third-party manufacturing operations related to Stellarex products and investment banking fees. We also incurred \$1.6 million of severance, retention and consulting costs for the integration of AngioScore, which is complete.

Intangible asset amortization. As part of our recent acquisitions, we acquired certain intangible assets, which are being amortized over periods from two to 12 years. We recorded \$12.2 million of amortization expense related to these intangible assets for the year ended December 31, 2016, compared with \$13.3 million for the year ended December 31, 2015. The decrease was due to intangible assets with a two year estimated life being fully amortized during the middle of 2016. See Note 2, "Business Combinations," and Note 5, "Goodwill and Other Intangible Assets," of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion of these acquisitions and related accounting matters.

Contingent consideration expense. For the years ended December 31, 2016 and December 31, 2015, we recorded \$0.2 million and \$2.7 million of contingent consideration expense, respectively, related to our contingent consideration liabilities from the AngioScore and Upstream acquisitions, due to the passage of time (i.e., accretion). The year-over-year decrease was primarily due to the remeasurement of our contingent consideration liability during 2015, which eliminated the liability for future AngioScore revenue-related contingent payments, as well as a payment of \$5.0 million in contingent consideration during 2016 for AngioScore. See Note 2, "Business Combinations," of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion.

Reduction in fair value of contingent consideration liability. During the year ended December 31, 2015, we remeasured the contingent consideration liability related to the AngioScore acquisition to its fair value and reduced it by approximately \$25.8 million. Of this amount, \$21.5 million related to a decrease in our future revenue estimates for the acquired AngioSculpt products. The remaining \$4.3 million was the result of an analysis we performed during the third quarter of 2015 related to the costs and efforts remaining to complete the DCAS projects, which are subject to contingent regulatory milestone payments. This analysis resulted in a determination that it was unlikely we would meet the regulatory milestones for two of the three DCAS projects within the time frames required and with the expenditure of funds set forth in the AngioScore acquisition agreement. See Note 2, "Business

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Combinations,” of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion.

Intangible asset impairment. For the year ended December 31, 2015, concurrent with the analysis of the contingent consideration liability discussed above, we recorded an intangible asset impairment of \$2.5 million to record a partial impairment of the in-process research and development intangible assets acquired as part of the AngioScore acquisition.

Other expense

Total other expense increased \$5.5 million, or 67%, from \$8.2 million for the year ended December 31, 2015 to \$13.7 million for the year ended December 31, 2016. The following table shows the changes in other expense for the years ended December 31, 2016 and December 31, 2015:

(in thousands, except for percentages)	For the Year Ended December 31,					
	2016	% of revenue (1)	2015	% of revenue (1)	\$ change	% change
Other expense:						
Interest expense, net	\$ (13,295)	(5)%	\$ (7,850)	(3)%	\$ (5,445)	69%
Foreign currency transaction loss	(403)	— %	(369)	— %	(34)	9%
Total other expense	<u>\$ (13,698)</u>	<u>(5)%</u>	<u>\$ (8,219)</u>	<u>(3)%</u>	<u>\$ (5,479)</u>	<u>67%</u>

(1) Percentage amounts may not add due to rounding.

The increase in other expense was primarily due to an increase in interest expense of \$5.4 million for the year ended December 31, 2016, compared with the year ended December 31, 2015, which was principally related to the term loan facility and revolving loan facility we entered into in December 2015.

Income tax expense

We recorded income tax expense of \$0.8 million and \$0.7 million for the years ended December 31, 2016 and 2015, respectively, consisting of current foreign and state income tax expense and deferred federal and state income tax expense.

Our ability to realize the benefit of our deferred tax assets in future periods will depend on the generation of future taxable income and tax planning strategies. Due to our history of losses and our planned near-term investments in our growth, we have recorded a valuation allowance against substantially all of our deferred tax assets that are in excess of our deferred tax liabilities. We do not expect to further reduce the valuation allowance against our deferred tax assets until we have a sufficient historical trend of taxable income and can predict future taxable income with a higher degree of certainty.

See Note 12, “Income Taxes,” to our consolidated financial statements in Part IV, Item 15 of this annual report for further discussion of our accounting for income taxes.

Net loss

Net loss decreased \$1.4 million, from \$59.5 million for the year ended December 31, 2015 to \$58.1 million for the year ended December 31, 2016. The decrease in net loss was primarily due to a decrease in operating loss of \$6.9 million, partially offset by an increase of \$5.5 million in other expense, described further above.

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Year Ended December 31, 2015 Compared with Year Ended December 31, 2014
Selected Consolidated Statements of Operations Data

The following tables present a summary of Consolidated Statements of Operations data for the years ended December 31, 2015 and December 31, 2014 based on the percentage of revenue for each line item, and the dollar and percentage change of each of the items. For a detailed discussion of each item, please see explanations below.

For the Year Ended December 31,						
(in thousands, except for percentages)	2015	% of revenue (1)	2014	% of revenue (1)	\$ Change	% Change
Revenue	\$ 245,956	100 %	\$ 204,914	100 %	\$ 41,042	20 %
Gross profit (2)	182,822	74 %	151,455	74 %	31,367	21 %
Operating expenses						
Selling, general and administrative	143,355	58 %	128,129	63 %	15,226	12 %
Research, development and other technology	64,436	26 %	28,675	14 %	35,761	125 %
Medical device excise tax	3,465	1 %	2,834	1 %	631	22 %
Acquisition transaction, integration and legal costs	29,472	12 %	17,288	8 %	12,184	70 %
Intangible asset amortization	13,275	5 %	6,335	3 %	6,940	110 %
Contingent consideration expense	2,671	1 %	2,070	1 %	601	29 %
Reduction in fair value of contingent consideration liability	(25,819)	(10)%	(1,064)	(1)%	(24,755)	nm
Intangible asset impairment	2,496	1 %	4,138	2 %	(1,642)	(40)%
Total operating expenses	233,351	95 %	188,405	92 %	44,946	24 %
Operating (loss) income	(50,529)	(21)%	(36,950)	(18)%	(13,579)	37 %
Other (expense) income						
Interest (expense) income, net	(7,850)	(3)%	(4,062)	(2)%	(3,788)	93 %
Foreign currency transaction (loss) gain	(369)	— %	(211)	— %	(158)	75 %
(Loss) income before income taxes	(58,748)	(24)%	(41,223)	(20)%	(17,525)	43 %
Income tax (benefit) expense	726	— %	(322)	— %	1,048	(325)%
Net loss	<u>\$ (59,474)</u>	<u>(24) %</u>	<u>\$ (40,901)</u>	<u>(20)%</u>	<u>\$ (18,573)</u>	<u>45 %</u>

(1) Percentage amounts may not add due to rounding.

(2) Includes the impact of \$0.3 million and \$2.1 million of amortization of acquired inventory step-up in 2015 and 2014, respectively.
nm = not meaningful.

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Revenue and gross margin

The following is a summary of revenue by category for the years ended December 31, 2015 and December 31, 2014:

For the Year Ended December 31,						
(in thousands, except for percentages)	2015	% of revenue (1)	2014	% of revenue (1)	\$ change	% change
Revenue:						
Disposable products:						
Vascular Intervention, ex-AngioSculpt	\$ 103,655	42%	\$ 88,522	43%	\$ 15,133	17 %
AngioSculpt	56,825	23%	29,626	14%	27,199	92 %
Total Vascular Intervention	160,480	65%	118,148	58%	42,332	36 %
Lead Management	69,899	28%	66,662	33%	3,237	5 %
Total disposable products	230,379	94%	184,810	90%	45,569	25 %
Laser, service, and other	15,577	6%	20,104	10%	(4,527)	(23) %
Total revenue	\$ 245,956	100%	\$ 204,914	100%	\$ 41,042	20 %
Total revenue ex-AngioSculpt	\$ 189,131	77%	\$ 175,288	86%	\$ 13,843	8 %

(1) Percentage amounts may not add due to rounding.

Revenue increased \$41.0 million, or 20% (22% on a constant currency basis), from \$204.9 million for the year ended December 31, 2014 to \$246.0 million for the year ended December 31, 2015. The increase was primarily due to an increase in VI disposables revenue, including the impact of a full year of AngioSculpt revenue in 2015, as compared with six months of AngioSculpt revenue in the prior year. Excluding revenue from AngioSculpt products, revenue increased 8% (10% on a constant currency basis). During 2015, approximately 52% of our disposable product revenue was from products used with our laser system, a decrease from 58% during the year ended December 31, 2014. The percentage decrease primarily related to the sales of the newly acquired AngioSculpt products.

VI revenue increased \$42.3 million, or 36% (38% on a constant currency basis), from \$118.1 million for the year ended December 31, 2014 to \$160.5 million for the year ended December 31, 2015, primarily due to an increase in revenue from AngioSculpt products of \$27.2 million, since 2014 revenue only included six months of AngioScore revenue. During 2015, AngioScore revenue was negatively impacted by market dynamics, including the launch of drug-coated balloons by competitors, and our sales force optimization efforts following the acquisition of AngioScore. Excluding revenue from AngioSculpt products, VI revenue increased 17% (18% on a constant currency basis). The increase in VI revenue excluding AngioSculpt was driven primarily by unit volume increases in peripheral atherectomy products in both hospitals and office-based physician clinics and, to a lesser extent, unit volume increases in our coronary atherectomy products. In the U.S., we have placed additional focus on our coronary business following the acquisition of AngioScore, which increased our portfolio of coronary products. In addition, a significant increase in outpatient hospital reimbursement for coronary interventions became effective January 1, 2015.

LM revenue increased \$3.2 million, or 5% (8% on a constant currency basis) from \$66.7 million for the year ended December 31, 2014 to \$69.9 million for the year ended December 31, 2015. The growth was primarily due to global market penetration of our mechanical tools, which were launched in the third quarter of 2014.

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Laser, service, and other revenue decreased \$4.5 million, or 23% (20% on a constant currency basis), from \$20.1 million for the year ended December 31, 2014 to \$15.6 million for the year ended December 31, 2015, primarily due to lower sales of laser systems internationally.

We placed 190 laser systems with new customers during the year ended December 31, 2015 compared with 180 during the year ended December 31, 2014. Of these laser placements, 121 lasers were newly manufactured during 2015, and 69 lasers were redeployed from previous institutions. The new placements during the year ended December 31, 2015 brought our worldwide installed base of laser systems to 1,392 (999 in the U.S.) as of December 31, 2015, compared to 1,271 (913 in the U.S.) as of December 31, 2014.

Geographically, revenue for the U.S. Medical segment increased \$39.3 million, or 23%, from \$167.4 million for the year ended December 31, 2014 to \$206.7 million for the year ended December 31, 2015, primarily due to an increase in VI revenue, and, to a lesser extent, an increase in LM revenue, partially offset by a small decline in laser, service, and other revenue. Revenue for the International Medical segment increased \$1.8 million, or 5% (17% on a constant currency basis), from \$37.5 million for the year ended December 31, 2014 to \$39.3 million for the year ended December 31, 2015 primarily due to an increase in VI and LM disposables revenue for the year ended December 31, 2015 compared with the year ended December 31, 2014. These increases were partially offset by a decrease in laser revenue internationally, notably in Japan, where we are transitioning to a volume-based laser placement model.

Gross margin was 74% for the year ended December 31, 2015, with no significant change as compared with the year ended December 31, 2014. Increased production efficiencies and a higher sales mix of disposable products were factors that improved margins during 2015. These improvements were offset by unfavorable impacts of currency and the impact of establishing manufacturing operations for the Stellarex DCB product, which was early in its launch cycle with lower volumes and a short shelf life.

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Operating expenses

Total operating expenses increased \$44.9 million, or 24%, from \$188.4 million for the year ended December 31, 2014 to \$233.4 million for the year ended December 31, 2015. The following table shows the changes in operating expenses for the years ended December 31, 2015 and December 31, 2014:

(in thousands, except for percentages)	For the Year Ended December 31,					
	2015	% of revenue (1)	2014	% of revenue (1)	\$ change	% change
Operating Expenses:						
Selling, general and administrative	\$ 143,355	58 %	\$ 128,129	63 %	\$ 15,226	12 %
Research, development and other technology	64,436	26 %	28,675	14 %	35,761	125 %
Medical device excise tax	3,465	1 %	2,834	1 %	631	22 %
Acquisition transaction, integration and legal costs	29,472	12 %	17,288	8 %	12,184	70 %
Intangible asset amortization	13,275	5 %	6,335	3 %	6,940	110 %
Contingent consideration expense	2,671	1 %	2,070	1 %	601	29 %
Reduction in fair value of contingent consideration liability	(25,819)	(10)%	(1,064)	(1)%	(24,755)	2,327 %
Intangible asset impairment	2,496	1 %	4,138	2 %	(1,642)	(40) %
Total operating expenses	<u>\$ 233,351</u>	<u>95 %</u>	<u>\$ 188,405</u>	<u>92 %</u>	<u>\$ 44,946</u>	<u>24 %</u>

(1) Percentage amounts may not add due to rounding.

Selling, general and administrative. SG&A expenses increased \$15.2 million, or 12%, from \$128.1 million for the year ended December 31, 2014 to \$143.4 million for the year ended December 31, 2015, primarily due to the expansion of our sales teams related to the AngioScore acquisition and the expansion of our sales team in Europe in early 2015 to support the launch and sales of the Stellarex DCB products. In addition, general and administrative personnel expenses increased in 2015 due to our organizational growth.

Research, development and other technology. Research, development and other technology expenses increased \$35.8 million, or 125%, from \$28.7 million for the year ended December 31, 2014 to \$64.4 million for the year ended December 31, 2015. Costs associated with the Stellarex DCB research, development and clinical studies totaled \$30.5 million, or 85% of the increase, for the year ended December 31, 2015. Costs included within research, development and other technology expenses are product development costs, clinical studies costs and royalty costs associated with various license agreements with third-party licensors.

Medical device excise tax. The PPACA imposes a medical device excise tax on medical device manufacturers on their sales in the U.S. of certain devices, which was effective January 1, 2013. The excise tax is 2.3% of the taxable base and applies to a substantial majority of our U.S. sales. We incurred \$3.5 million of medical device excise tax expense for the year ended December 31, 2015 compared with \$2.8 million for the year ended December 31, 2014. The increase in the medical device excise tax was due to increased U.S. revenue for the year ended December 31, 2015. In December 2015, legislation was enacted that suspended the medical device excise tax for 2016 and 2017.

Acquisition transaction, integration and legal costs. We incurred \$29.5 million of costs related to the AngioScore and Stellarex acquisitions for the year ended December 31, 2015. Of this amount, \$19.9 million

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comprised legal fees associated with the breach of fiduciary duty and patent infringement matter in which AngioScore is the plaintiff, including amounts advanced for attorneys' fees and costs. This matter is further described in Note 13, "Commitments and Contingencies," to the consolidated financial statements included in Part IV, Item 15 of this annual report. Stellarex acquisition costs of \$8.0 million primarily consisted of one-time costs associated with establishing in-house and third-party manufacturing operations related to Stellarex products and investment banking fees. We also incurred \$1.6 million of severance, retention and consulting costs for the integration of AngioScore.

In the year ended December 31, 2014, we incurred \$17.3 million of costs related to acquisitions. Of this amount, \$15.8 million related to the AngioScore acquisition, and consisted primarily of investment banking, accounting, consulting, and legal fees, as well as severance, retention, and other integration costs. These costs also included legal fees associated with a patent-related matter in which AngioScore is the plaintiff. We incurred \$1.5 million of expenses related to the Stellarex product acquisition that closed in 2015, consisting primarily of legal fees.

Intangible asset amortization. As part of our recent acquisitions, we acquired certain intangible assets, which are being amortized over periods from two to 12 years. We recorded \$13.3 million of amortization expense related to these intangible assets for the year ended December 31, 2015, compared with \$6.3 million for the year ended December 31, 2014. The increase was due to a full-year of amortization of the AngioScore intangible assets (as compared to six months amortization post-acquisition in 2014), as well as amortization related to the intangible assets acquired as part of the Stellarex acquisition. See Note 2, "Business Combinations," and Note 5, "Goodwill and Other Intangible Assets," of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion of these acquisitions and related accounting matters.

Contingent consideration expense. For the years ended December 31, 2015 and December 31, 2014, we recorded \$2.7 million and \$2.1 million of contingent consideration expense, respectively, related to our contingent consideration liabilities from the AngioScore and Upstream acquisitions, due to the passage of time (i.e., accretion). The year-over-year increase was primarily due to a full year of contingent consideration expense during 2015. See Note 2, "Business Combinations," of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion.

Reduction in fair value of contingent consideration liability. During the year ended December 31, 2015, we remeasured the contingent consideration liability related to the AngioScore acquisition to its fair value and reduced it by approximately \$25.8 million. Of this amount, \$21.5 million related to a decrease in our future revenue estimates for the acquired AngioSculpt products. The remaining \$4.3 million was the result of an analysis we performed during the third quarter of 2015 related to the costs and efforts remaining to complete the DCAS projects, which are subject to contingent regulatory milestone payments. This analysis resulted in a determination that it was unlikely we would meet the regulatory milestones for two of the three DCAS projects within the time frames required and with the expenditure of funds set forth in the AngioScore acquisition agreement. See Note 2, "Business Combinations," of the consolidated financial statements in Part IV, Item 15 of this annual report for further discussion.

During the year ended December 31, 2014, as a result of our assessment of reduced estimated revenue related to the acquired Upstream products, we remeasured the contingent consideration liability related to the Upstream acquisition to its fair value and reduced the liability by \$1.1 million.

Intangible asset impairment. For the year ended December 31, 2015, concurrent with the analysis of the contingent consideration liability discussed above, we recorded an intangible asset impairment of \$2.5 million to record a partial impairment of the in-process research and development intangible assets acquired as part of the AngioScore acquisition. During the year ended December 31, 2014, we recorded an intangible asset impairment of

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\$4.1 million related to the intangible assets acquired from Upstream based on their estimated fair value using revised cash flow assumptions related to those assets.

Other income (expense)

Total other expense increased \$3.9 million, or 92%, from \$4.3 million for the year ended December 31, 2014 to \$8.2 million for the year ended December 31, 2015. The following table shows the changes in other expense for the years ended December 31, 2015 and December 31, 2014:

(in thousands, except for percentages)	For the Year Ended December 31,					
	2015	% of revenue (1)	2014	% of revenue (1)	\$ change	% change
Other (expense) income:						
Interest (expense) income, net	\$ (7,850)	(3)%	\$ (4,062)	(2)%	\$ (3,788)	93%
Foreign currency transaction (loss) gain	(369)	— %	(211)	— %	(158)	75%
Total other (expense) income	<u>\$ (8,219)</u>	<u>(3)%</u>	<u>\$ (4,273)</u>	<u>(2)%</u>	<u>\$ (3,946)</u>	<u>92%</u>

(1) Percentage amounts may not add due to rounding.

The increase in other expense was primarily due to an increase in interest expense of \$3.8 million for the year ended December 31, 2015, compared with the year ended December 31, 2014, which was primarily related to a full year of interest expense on the Notes (as compared to approximately seven months post-issuance in 2014), including amortization of debt issuance costs. In addition, other expense was impacted by an increase in foreign currency transaction loss of \$0.2 million for the year ended December 31, 2015, which resulted from the intercompany transactions with our Dutch subsidiary, whose functional currency is the euro, due to a weakening of the euro during the year ended December 31, 2015.

Income tax (benefit) expense

We recorded income tax expense of \$0.7 million for the year ended December 31, 2015, consisting of current foreign and state income tax expense and deferred federal and state income tax expense. Our income tax benefit of \$0.3 million for the year ended December 31, 2014, consisted of a tax benefit of approximately \$1.3 million that was partially offset by current foreign and state income tax expense and deferred federal income tax expense. The \$1.3 million tax benefit resulted from a partial release of the valuation allowance against our deferred tax assets related to the AngioScore acquisition.

See Note 12, "Income Taxes," to our consolidated financial statements in Part IV, Item 15 of this annual report for further discussion of our accounting for income taxes.

Net loss

Net loss increased \$18.6 million, from \$40.9 million for the year ended December 31, 2014 to \$59.5 million for the year ended December 31, 2015. The increase in net loss was primarily due to an increase in operating loss of \$13.6 million, due primarily to increased research and development expenses from the Stellarex acquisition, and an increase of \$3.9 million in other expense, described further above.

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Liquidity and Capital Resources

As of December 31, 2016, we had cash and cash equivalents of \$57.2 million, representing a decrease of \$27.4 million from \$84.6 million at December 31, 2015.

Our future liquidity requirements will be influenced by numerous factors. We believe that our cash and cash equivalents, anticipated funds from operations, and other sources of liquidity, which may include additional borrowings under the revolving loan facility or other credit or financing arrangements, will be sufficient to meet our liquidity requirements for at least the next 12 months based on our expected level of operations.

We may need or seek additional funding in the future. In addition to access to available borrowings under our revolving loan facility, we have an effective shelf registration statement on file with the SEC under which we may issue, from time to time, up to \$200 million of senior debt securities, subordinated debt securities, common stock, preferred stock and other securities. Our ability to issue debt securities is limited by certain covenants in the credit agreements described below under "Term Loan Facility and Revolving Loan Facility". A financing transaction may not be available on terms acceptable to us, or at all, and a financing transaction may be dilutive to our current stockholders.

We have generated and used cash as follows:

(in thousands)	For the Year Ended December 31,	
	2016	2015
Net cash used in operating activities	\$ (24,433)	\$ (59,459)
Net cash used in investing activities	(5,354)	(39,538)
Net cash provided by financing activities	2,372	88,239

Operating Activities. For the year ended December 31, 2016, cash used in operating activities was \$24.4 million. This compared with cash used in operating activities of \$59.5 million for the year ended December 31, 2015. The primary sources and uses of cash in 2016 were:

- Our net loss of \$58.1 million included approximately \$42.0 million of net non-cash expenses, which consisted primarily of \$27.4 million of depreciation and amortization and \$14.0 million of stock-based compensation.
- During 2016, we made a \$5.0 million contingent consideration payment in connection with the AngioScore acquisition, \$2.3 million of which was recognized in earnings subsequent to the AngioScore acquisition and contributed to net cash used in operating activities. See "Future Investments and Contingent Consideration Related to Acquisitions" below for more information on contingent consideration payments.
- Cash used as a result of a net change in operating assets and liabilities of approximately \$8.3 million was primarily due to an increase in equipment held for rental or loan of \$9.8 million as a result of placement activity of our laser systems through our rental and evaluation programs, an increase in our inventories of approximately \$3.7 million, primarily due to increased sales demand and higher disposables production, and an increase in prepaid expenses and other current assets of approximately \$1.4 million, primarily due to an increase in prepayments for travel. These uses of cash were partially offset by an increase in accounts payable and accrued liabilities of \$7.8 million, primarily due to the timing of compensation-related accruals related to an investment in our field sales force and increased sales.

The primary sources and uses of cash in 2015 were:

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- Our net loss of \$59.5 million included approximately \$18.5 million of net non-cash expenses. Non-cash expenses primarily included \$26.6 million of depreciation and amortization, \$10.1 million of stock-based compensation, \$2.7 million of contingent consideration expense and a \$2.5 million intangible asset impairment, partially offset by a \$25.8 million change in fair value of the contingent consideration liability.
- Cash used as a result of a net increase in operating assets and liabilities of approximately \$18.5 million was primarily due to an increase in equipment held for rental or loan of \$12.1 million as a result of placement activity of our laser systems through our rental and evaluation programs, in addition to a decrease in accounts payable and accrued liabilities of \$6.2 million, primarily as a result of a reduction in accrued legal costs in 2015.

Investing Activities. For the year ended December 31, 2016, cash used in investing activities consisted of capital expenditures of \$5.4 million. This compared with cash used in investing activities of \$39.5 million in the year ended December 31, 2015, consisting of \$30.0 million of payments for the Stellarex acquisition and \$9.5 million of capital expenditures. The capital expenditures for the years ended December 31, 2016 and 2015 included manufacturing equipment upgrades and replacements, additional capital items for research and development projects, and additional computer equipment and software purchases, including capital items required for the Stellarex product line.

Financing Activities. Cash provided by financing activities for the year ended December 31, 2016 was \$2.4 million, consisting primarily of the exercise of stock options and sale of common stock under our employee stock purchase plan of \$4.7 million and net proceeds on our line of credit of \$0.5 million. These sources of cash were partially offset by payments of \$2.7 million of a \$5.0 million contingent consideration payment in connection with the AngioScore acquisition related to the portion of the liability included as part of the initial measurement of fair value. See “*Future Investments and Contingent Consideration Related to Acquisitions*” below for more information on contingent consideration payments. For the year ended December 31, 2015, cash provided by financing activities consisted primarily of \$60.0 million in proceeds from the term loan, proceeds on the line of credit, net, of \$24.2 million, and the exercise of stock options and sales of common stock under our employee stock purchase plan of \$4.8 million.

The table below presents the change in receivables and inventory, in relative terms, through the presentation of financial ratios. Days sales outstanding are calculated by dividing the ending accounts receivable balance, net of allowances for sales returns and doubtful accounts, by the average daily sales for the quarter. The decrease in days sales outstanding for the year ended December 31, 2016 compared to the year ended December 31, 2015 was primarily due to increased collections from slower-paying customers. Inventory turns are calculated by dividing annualized cost of sales for the quarter by ending inventory.

	December 31, 2016	December 31, 2015
Days Sales Outstanding	55	60
Inventory Turns	2.5	2.4

Future Investments and Contingent Consideration Related to Acquisitions

On January 27, 2015, we completed the acquisition of the Stellarex DCB Assets and made a cash payment of \$30 million. The Stellarex acquisition will require substantial additional investments prior to full commercialization, primarily within research, development and clinical trials.

In connection with the AngioScore acquisition, we agreed to pay additional contingent merger consideration, a portion of which included a cash payment of \$5.0 million if the AngioSculptX product received European CE mark approval by December 31, 2016. We received the European CE mark approval during the third quarter of 2016 and made a contingent consideration payment of \$5.0 million, \$2.7 million of which was classified as a cash flow from

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financing activities, because it was included as part of the initial measurement of the fair value of the consideration transferred. The remaining \$2.3 million of the payment was classified as a cash flow from operating activities, as it was reflected in earnings in the periods subsequent to the acquisition as accretion expense and a change in the fair value of the contingent consideration liability. As of December 31, 2016, we do not expect to make any additional contingent consideration payments related to the AngioScore acquisition.

Term Loan Facility and Revolving Loan Facility

On December 7, 2015, the Company and AngioScore Inc., as borrowers (jointly, the “Borrowers”) entered into a term credit and security agreement (the “Term Loan Credit Agreement”) and a revolving credit and security agreement (the “Revolving Loan Credit Agreement”, and together with the Term Loan Credit Agreement, the “Credit Agreements”) with MidCap Financial Trust and the other lenders party thereto. The Credit Agreements replace the Credit and Security Agreement (the “Wells Fargo Credit Agreement”) entered into by the Company and Wells Fargo Bank, National Association on February 25, 2011. The Term Loan Credit Agreement provides for a five-year \$60 million term loan facility (the “Term Loan Facility”) and the Revolving Loan Credit Agreement provides for a five-year \$50 million revolving loan facility (the “Revolving Loan Facility”). The Revolving Loan Facility may be increased to up to \$70 million, subject to approval. The obligations of the Borrowers under the Credit Agreements are secured by a lien on substantially all of the assets of the Borrowers. For more information, see Note 11, “Debt,” to our consolidated financial statements in Part IV, Item 15 of this annual report.

The Revolving Loan Facility had an outstanding balance of \$24.7 million as of December 31, 2016. We may prepay and re-borrow amounts borrowed under the Revolving Loan Facility without penalty. The Term Loan Facility had an outstanding balance of \$60.0 million as of December 31, 2016. The interest rate on the Term Loan Facility was 8.12% at December 31, 2016 and the monthly weighted average interest rate on the Revolving Loan Facility was 5.07% at December 31, 2016.

Convertible Senior Notes

In June 2014, we sold \$230 million aggregate principal amount of Convertible Senior Notes due 2034 (the “Notes”). Net proceeds from the sale of the Notes were used for the AngioScore acquisition. The Notes bear interest at a rate of 2.625% per annum. We pay interest on the Notes on June 1 and December 1 of each year, beginning December 1, 2014. The Notes will mature on June 1, 2034 (maturity date), unless earlier repurchased, redeemed or converted.

Holders may convert their Notes into shares of our common stock at their option at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date.

The initial conversion rate is 31.9020 shares of our common stock per \$1,000 principal amount of Notes (equivalent to an initial conversion price of approximately \$31.35 per share of our common stock). The conversion price is subject to adjustment in some events, but will not be adjusted for accrued interest. In addition, if a fundamental change occurs or we deliver a redemption notice, in certain circumstances we will increase the conversion rate for a holder that elects to convert its Note in connection with such fundamental change or redemption notice, as the case may be.

Holders may require us to repurchase some or all of their Notes for cash on each of June 5, 2021, June 5, 2024 and June 5, 2029 and upon a fundamental change (as defined in the indenture governing the Notes) at a repurchase price equal to 100% of the principal amount of the Notes being repurchased, plus accrued and unpaid interest, if any, to, but excluding, the relevant repurchase date.

We may not redeem the Notes prior to June 5, 2018. On or after June 5, 2018 and prior to June 5, 2021, we may redeem for cash all or part of the Notes if the closing sale price of our common stock for at least 20 trading

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days (whether or not consecutive) during the period of 30 consecutive trading days ending on the trading day immediately prior to the date we provide the notice of redemption exceeds 130% of the applicable conversion price for the Notes. On or after June 5, 2021, we may redeem any or all of the Notes in cash. The redemption price for the Notes to be redeemed as described in the two immediately preceding sentences equals 100% of the principal amount of the Notes being redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

The Notes are our senior unsecured obligations and rank equal in right of payment with any of our other senior unsecured indebtedness and senior in right of payment to any indebtedness that is contractually subordinated to the Notes. The Notes are effectively subordinated to all of our future secured indebtedness to the extent of the value of the collateral securing such indebtedness and structurally subordinated to the claims of our subsidiaries' creditors, including trade creditors.

Capital Resources

During the years ended December 31, 2016 and 2015, we purchased approximately \$5.4 million and \$9.5 million, respectively, of property and equipment for cash, which is included in cash flows from investing activities. During 2016 and 2015, we also invested approximately \$9.8 million and \$12.1 million, respectively, in laser equipment held for rental or loan under our rental and evaluation programs, which is included in cash flows from operating activities. We expect to fund any capital expenditures in 2017 from cash and cash equivalents.

Contractual Obligations

Long-term debt and interest on long-term debt represent contractual repayments of our long-term debt. We lease office space, furniture, vehicles and equipment under noncancelable operating leases with initial terms that expire at various dates through 2025. Purchase obligations consist of purchase orders issued primarily for inventory. Royalty obligations represent the minimum royalties due under license agreements. Clinical trial clinical research organization ("CRO") obligations represent contractual monthly payments for services performed and milestone payments to third-party CROs for clinical trials. The future minimum payments under long-term debt, interest on long-term debt, noncancelable operating leases, purchase obligations, royalty obligations and clinical trial CRO obligations as of December 31, 2016 were as follows:

(in thousands)	Total	Less than 1 year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt	\$ 314,712	\$ 24,712	\$ —	\$ 60,000	\$ 230,000
Interest on long-term debt*	139,430	12,188	24,377	24,377	78,488
Operating leases	20,542	3,472	6,605	5,588	4,877
Purchase obligations	18,818	18,818	—	—	—
Royalty obligations	3,260	740	1,480	940	100
Clinical trial CRO obligations	10,737	2,778	3,158	2,400	2,401
Total	<u>\$ 507,499</u>	<u>\$ 62,708</u>	<u>\$ 35,620</u>	<u>\$ 93,305</u>	<u>\$ 315,866</u>

*Represents interest payments under our Notes, Term Loan Facility and Revolving Loan Facility based on the applicable rates in effect on December 31, 2016. Refer to Note 11, "Debt," in our consolidated financial statements in Part IV, Item 15 of this annual report.

We have a contractual obligation to pay interest on the Notes, totaling approximately \$6.0 million per year, on June 1 and December 1 each year. We also have a contractual obligation to pay interest on the Term Loan Facility, totaling approximately \$5.0 million per year, payable monthly in arrears. In addition, we have a contractual obligation to pay interest on amounts drawn on the Revolving Loan Facility. During 2016, we made \$6.1 million in interest payments on the Term Loan Facility and the Revolving Loan Facility. During 2015, we did not make any

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interest payments on the Term Loan Facility or the Revolving Loan Facility, as interest did not become due until 2016.

Off-Balance Sheet Arrangements

We maintain no off-balance sheet arrangements that have, or that are reasonably likely to have, a material current or future effect on our financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources. We maintain operating leases for our offices in Colorado Springs, Colorado; Broomfield, Colorado; Fremont, California; Maple Grove, Minnesota; the Netherlands, Germany and France.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in conformity with accounting principles generally accepted in the U.S. of America ("U.S. GAAP"). Our most significant accounting policies are described in Note 1 to our consolidated financial statements in Part IV, Item 15 of this annual report. Below is a discussion of our critical accounting policies and their impact on the preparation of our consolidated financial statements.

Use of Estimates. We must make certain estimates, judgments and assumptions that we believe are reasonable based upon the information available. These estimates and assumptions affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the periods presented. On an ongoing basis, we evaluate our estimates and judgments, including those relating to the carrying amount of property and equipment, goodwill and intangible assets; allowances for receivables, inventories, sales returns and deferred income tax assets; contingent consideration liabilities for acquisitions; stock-based compensation expense; estimated clinical trial expenses; accrued costs for incurred but not reported claims under partially self-insured employee health benefit programs; and loss contingencies, including those related to litigation. We base our estimates and judgments on historical experience and on various other factors we believe to be reasonable under the circumstances. These judgments and estimates form the basis for the carrying values of certain assets and liabilities that are not objectively available from other sources. Actual results could differ from those estimates, and the carrying values of these assets and liabilities may differ under different assumptions or conditions.

Revenue Recognition. We recognize revenue when all of the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred; the sales price is fixed or determinable; and collectibility is reasonably assured. Revenue from the sale of our disposable products is recognized when products are shipped to the customer and title transfers. In general, customers do not have a right of return for credit or refund. However, we allow returns under certain circumstances and record an allowance for sales returns based on an analysis of revenue transactions and historical experience of sales returns. The allowance for sales returns is recorded as a reduction of revenue based on our estimates. Actual sales returns may vary depending on customer inventory levels, new product introductions and other factors. Revenue from the sale of laser systems is recognized after completion of contractual obligations, which generally include delivery and installation of the systems. Our field service engineers are responsible for installation of each laser. We generally provide a one-year warranty on laser sales, which includes parts, labor and replacement gas. Upon expiration of the warranty period, we offer similar service to our customers under annual service contracts or on a fee-for-service basis. We recognize revenue from fee-for-service arrangements upon completion of the related service.

We account for service provided during the one-year warranty or service contract period as a separate unit of accounting. As such, we defer the fair value of this service and recognize it as revenue on a straight-line basis over the related warranty or service contract period and warranty and service costs are expensed in the period they are incurred.

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In addition to the sale of laser systems, we also offer laser system placement programs, including flat-rate rentals and variable (depending on catheter purchases) rentals for which we invoice the customer and recognize revenue monthly. We also offer a "Capital Included" rental program under which the customer does not pay a rental fee, but agrees to a catheter price list that includes a per-unit surcharge, which covers the cost of the laser system. We recognize the total surcharge as rental revenue upon shipment of the catheters, believing it to be the best measurement of revenue associated with the customers' use of the laser system. Under the laser system placement programs, the laser system is transferred to the equipment held for rental or loan account upon shipment, and the depreciation expense related to the system is included in cost of revenue based upon a five-year expected life of the laser system. Costs to maintain the equipment are expensed as incurred.

We sell to end-users in the U.S. and internationally as well as to certain international distributors. Sales to international distributors represented approximately 8% of our total revenue in 2016. Distributor agreements are in place with each distributor, which outline the significant terms of the transactions between the distributor and us. The terms and conditions of sales to our international distributors do not differ materially from the terms and conditions of sales to our domestic and international end-user customers. Sales to distributors are recognized either at shipment or a later date in accordance with the agreed upon contract terms with distributors, provided that we have received an order, the price is fixed or determinable, collectibility of the resulting receivable is reasonably assured, all contractual obligations have been met and we can reasonably estimate returns. We provide products to our distributors at agreed wholesale prices and do not typically provide any special right of return or exchange, discounts, significant sales incentives, price protection or stock rotation rights to any of our distributors.

Valuation of Business Combinations. The fair value of consideration, including contingent consideration, transferred in acquisitions accounted for as business combinations is first allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the date of acquisition. Any excess purchase consideration is allocated to goodwill. Further, for those arrangements that involve liability classified contingent consideration, we record on the date of acquisition a liability equal to the discounted fair value of the estimated additional consideration we may be obligated to make in the future. Liability classified contingent consideration is adjusted to its fair value each reporting period through earnings. Acquisition transaction costs are expensed as incurred.

The fair value of identifiable intangible assets requires management estimates and judgments based on market participant assumptions. Using alternative valuation assumptions, including estimated revenue projections, growth rates, cash flows, discount rates, estimated useful lives, and probabilities surrounding the achievement of milestones could result in different fair value estimates of our net tangible and intangible assets and related amortization expense in current and future periods.

Contingent consideration liabilities are remeasured to fair value each reporting period using projected revenues, discount rates, probabilities of payment, and projected payment dates. Increases or decreases in the fair value of the contingent consideration liability can result from changes in the timing and amount of revenue estimates or in the timing or likelihood of achieving intellectual property milestones, and changes in discount periods and rates. Projected contingent payment amounts are discounted back to the current period using a discounted cash flow model.

Goodwill and Other Intangible Assets. Goodwill represents the excess of costs over the fair value of the identifiable net assets of businesses acquired. Goodwill and intangible assets acquired in a business combination and determined to have indefinite useful lives are not amortized, but instead tested for impairment at least annually and whenever events or circumstances indicate the carrying amount of the asset may not be recoverable. Management must use significant estimates and assumptions in evaluating whether or not impairment of goodwill and other intangible assets has occurred, which can change the amount of goodwill and other intangible assets over time.

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Long-Lived Assets. We review long-lived assets and certain identifiable intangibles, which primarily consist of completed technology, customer and distributor relationships, trademarks and trade names, non-compete agreements, patents and in process research and development ("IPR&D"), for impairment whenever events or circumstances indicate the carrying amount of an asset may not be recoverable. We define IPR&D as the value of technology acquired for which the related products have not yet reached technological feasibility and have no future alternative use. IPR&D acquired in a business combination is capitalized as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. The estimated fair value of IPR&D is determined using an income approach model.

The carrying value of a long-lived asset is considered impaired when the expected undiscounted cash flows from such asset are separately identifiable and are less than the carrying value. Fair value is determined by reference to quoted market prices, if available, or the utilization of certain valuation techniques such as cash flows discounted at a rate commensurate with the risk involved. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less selling costs.

Allowance for Doubtful Accounts. We use judgment in estimating the allowance for doubtful accounts based upon an aging of accounts receivable, historical experience and the overall quality of the receivables. We review individual accounts receivable balances for collectibility. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is remote.

Inventory Reserves. We calculate inventory reserves for estimated obsolescence or excess inventory based on historical usage and sales, and assumptions about future demand for our products. We review and update our estimates for excess and obsolete inventory on a quarterly basis. The estimates we use for product demand are consistent with our sales forecasts and are also used for near-term production planning and inventory purchasing. Increases in the inventory reserves result in a corresponding expense, which is recorded to cost of goods sold, and these reserves create a new cost basis for the subsequent accounting of the inventory.

Stock-based compensation. We measure all employee stock-based compensation awards using a fair value method and record such expense in our consolidated financial statements.

We estimate the fair value of stock option awards on the date of grant using either the Black-Scholes option pricing model or a trinomial lattice model, both of which require management's estimates and assumptions regarding several complex and subjective variables including volatility, expected term of the options, performance-based objectives, and other inputs. In recognizing stock-based compensation expense, we also estimate future forfeitures based on historical forfeiture data.

With respect to performance share units ("PSUs") granted to certain of our officers in 2014 and 2016, we estimate the fair value of the PSUs based on our closing stock price at the time of grant and our estimate of achieving specified performance targets. Over the performance period, the number of shares of common stock that will ultimately vest and be issued and the related compensation expense is adjusted based upon our then-current estimate of achieving such performance targets. Different estimates could result in significantly different compensation expense recorded each period. For more information, see Note 7, "Stock Based Compensation and Employee Benefit Plans," to our consolidated financial statements in Part IV, Item 15 of this annual report.

Income Taxes. We account for income taxes using the asset and liability method of accounting for deferred income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, operating losses and tax credit carryforwards. A valuation allowance is provided to the extent it is more likely than not that a deferred tax asset will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in

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operations in the period that includes the enactment date. For more information, see Note 12, "Income Taxes," to our consolidated financial statements in Part IV, Item 15 of this annual report.

Clinical Trial Costs. We sponsor clinical trials intended to obtain the necessary clinical data required to obtain approval from the FDA and foreign regulatory agencies to market new applications of its technology. Costs associated with these clinical trials are also included within research, development and other technology costs. In certain cases, substantial portions of our clinical trials are performed by third-party CROs. These CROs generally bill monthly for services performed and also bill based upon milestone achievement. We accrue for services as provided, when services are performed before milestone payments are made. If we prepay CRO fees or milestone payments, we record the prepayment as a prepaid asset and amortizes the asset into research, development and other technology expense over the period of time the contracted services are performed based upon the number of patients enrolled, "patient months" incurred and the duration of the study. We monitor patient enrollment, the progress of clinical studies and related activities through internal reviews of data reported to us by the CROs and correspondence with the CROs. We periodically evaluate our estimates to determine if adjustments are necessary or appropriate based on information we receive.

New Accounting Pronouncements

For a discussion of the recent accounting pronouncements relevant to our business operations, refer to the information provided under Note 1 to the consolidated financial statements in Part IV, Item 15 of this annual report.

Non-GAAP Financial Measures

To supplement our consolidated financial statements prepared in accordance with U.S. GAAP, we use certain non-GAAP financial measures in this report. Reconciliations of these non-GAAP financial measures to the most directly comparable U.S. GAAP measures for the respective periods can be found in the tables below. An explanation of the manner in which our management uses these non-GAAP measures to conduct and evaluate our business and the reasons why management believes these non-GAAP measures provide useful information to investors is provided following the reconciliation tables.

Reconciliation of revenue by geography to non-GAAP revenue by geography on a constant currency basis (in thousands, except for percentages) (unaudited)

	Year Ended			December 31, 2015		Change	
	December 31, 2016			December 31, 2015			
	Revenue, as reported	Foreign exchange impact as compared to prior period	Revenue on a constant currency basis	Revenue, as reported		As reported	Constant currency basis
U.S.	\$ 225,300	\$ —	\$ 225,300	\$ 206,683		9%	9%
International	45,523	172	45,695	39,273		16%	16%
Total revenue	\$ 270,823	\$ 172	\$ 270,995	\$ 245,956		10%	10%

	Year Ended			December 31, 2014		Change	
	December 31, 2015			December 31, 2014			
	Revenue, as reported	Foreign exchange impact as compared to prior period	Revenue on a constant currency basis	Revenue, as reported		As reported	Constant currency basis
U.S.	\$ 206,683	\$ —	\$ 206,683	\$ 167,399		23%	23%
International	39,273	4,506	43,779	37,515		5%	17%
Total revenue	\$ 245,956	\$ 4,506	\$ 250,462	\$ 204,914		20%	22%

Reconciliation of revenue by product line to non-GAAP revenue by product line
on a constant currency basis
(in thousands, except for percentages)
(unaudited)

	Year Ended					
	December 31, 2016			December 31, 2015	Change	
	Revenue, as reported	Foreign exchange impact as compared to prior period	Revenue on a constant currency basis	Revenue, as reported	As reported	Constant currency basis
Vascular Intervention	\$ 181,602	\$ (115)	\$ 181,487	\$ 160,480	13 %	13 %
Lead Management	73,265	261	73,526	69,899	5 %	5 %
Laser, service, and other	15,956	26	15,982	15,577	2 %	3 %
Total revenue	<u>\$ 270,823</u>	<u>\$ 172</u>	<u>\$ 270,995</u>	<u>\$ 245,956</u>	10 %	10 %

	Year Ended					
	December 31, 2015			December 31, 2014	Change	
	Revenue, as reported	Foreign exchange impact as compared to prior period	Revenue on a constant currency basis	Revenue, as reported	As reported	Constant currency basis
Vascular Intervention, ex-AngioSculpt	\$ 103,655	\$ 1,175	\$ 104,830	\$ 88,522	17 %	18 %
AngioSculpt	56,825	938	57,763	29,626	92 %	95 %
Total Vascular Intervention	160,480	2,113	162,593	118,148	36 %	38 %
Lead Management	69,899	1,864	71,763	66,662	5 %	8 %
Laser, service, and other	15,577	528	16,105	20,104	(23)%	(20)%
Total revenue	<u>\$ 245,956</u>	<u>\$ 4,505</u>	<u>\$ 250,461</u>	<u>\$ 204,914</u>	20 %	22 %
Total revenue, ex- AngioSculpt	\$ 189,131	\$ 3,567	\$ 192,698	\$ 175,288	8 %	10 %

Reconciliation of gross margin to non-GAAP gross margin
excluding amortization of acquired inventory step-up
(in thousands, except percentages)
(unaudited)

	Year Ended		
	December 31, 2016	December 31, 2015	December 31, 2014
Gross profit, as reported	\$ 202,497	\$ 182,822	\$ 151,455
Amortization of acquired inventory step-up (1)	—	251	2,074
Adjusted gross profit, excluding amortization of acquired inventory step-up	\$ 202,497	\$ 183,073	\$ 153,529
Gross margin, as reported	75%	74%	74%
Non-GAAP gross margin, excluding amortization of acquired inventory step-up	75%	74%	75%

Reconciliation of Net Loss to Non-GAAP Net Loss
(in thousands)
(unaudited)

	Year Ended		
	December 31, 2016	December 31, 2015	December 31, 2014
Net loss, as reported	\$ (58,120)	\$ (59,474)	\$ (40,901)
Amortization of acquired inventory step-up (1)	—	251	2,074
Acquisition transaction, integration and legal costs (2)	1,922	29,472	17,288
Acquisition-related intangible asset amortization (3)	12,227	13,275	6,335
Contingent consideration expense (4)	214	2,671	2,070
Reduction in fair value of contingent consideration liability (5)	—	(25,819)	(1,064)
Intangible asset impairment (5)	—	2,496	4,138
Release of valuation allowance related to AngioScore acquisition (6)	—	—	(1,266)
Non-GAAP net loss	\$ (43,757)	\$ (37,128)	\$ (11,326)

Reconciliation of Net Loss Per Diluted Share to
Non-GAAP Net Loss Per Diluted Share
(unaudited)

	Year Ended		
	December 31, 2016	December 31, 2015	December 31, 2014
Net loss per share, as reported	\$ (1.35)	\$ (1.40)	\$ (0.98)
Amortization of acquired inventory step-up (1)	—	0.01	0.05
Acquisition transaction, integration and legal costs (2)	0.04	0.69	0.41
Acquisition-related intangible asset amortization (3)	0.28	0.31	0.15
Contingent consideration expense (4)	—	0.06	0.05
Reduction in fair value of contingent consideration liability (5)	—	(0.61)	(0.03)
Intangible asset impairment (5)	—	0.06	0.10
Release of valuation allowance related to AngioScore acquisition (6)	—	—	(0.03)
Non-GAAP net loss per share (7)	<u>\$ (1.03)</u>	<u>\$ (0.88)</u>	<u>\$ (0.27)</u>

- 1) Amortization of acquired inventory step-up relates to the inventory acquired in the AngioScore acquisition.
- 2) Acquisition transaction, integration and legal costs relate to the AngioScore and Stellarex acquisitions, which closed on June 30, 2014 and January 27, 2015, respectively, and included investment banking fees, accounting, consulting, and legal fees, severance and retention costs, and non-recurring costs associated with establishing manufacturing operations to support the Stellarex program. In addition, these costs included \$1.8 million, \$19.9 million and \$6.8 million in the years ended December 31, 2016, 2015 and 2014, respectively, for legal fees, including legal fees and costs advanced, associated with a patent and breach of fiduciary duty matter in which AngioScore is the plaintiff.
- 3) Acquisition-related intangible asset amortization relates primarily to intangible assets acquired in the AngioScore acquisition in June 2014 and the Stellarex acquisition in January 2015.
- 4) Contingent consideration expense primarily represents the accretion of the estimated contingent consideration liability related to future amounts payable to former AngioScore stockholders, based on sales of the AngioScore products and achievement of regulatory milestones.
- 5) During the year ended December 31, 2015, we remeasured the contingent consideration liabilities related to the AngioScore regulatory milestones and future revenue-related payments to their fair values, which reduced the total contingent consideration liability by approximately \$25.8 million. The intangible asset impairment of \$2.5 million was to record a partial impairment of the in-process research and development intangible assets acquired as part of the AngioScore acquisition.
- 6) Income tax benefit for the year ended December 31, 2014 included a tax benefit of \$1.3 million resulting from a reduction in the valuation allowance against our deferred tax assets related to the acquisition of AngioScore.
- 7) Per share amounts may not add due to rounding.

Management uses the non-GAAP financial measures as supplemental measures to analyze the underlying trends in our business, assess the performance of our core operations, establish operational goals and forecasts that are used in allocating resources and evaluate our performance period over period on a comparable basis and in relation to our competitors' operating results. In general, the income or expenses that are excluded from non-GAAP

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financial measures are intended to enhance the comparability of results between periods and are non-cash costs or non-recurring costs.

The impact of foreign exchange rates is highly variable and difficult to predict. We use a constant currency basis to show the impact from foreign exchange rates on current period revenue compared to prior period revenue using the prior period's foreign exchange rates. In order to properly understand the underlying business trends and performance of our ongoing operations, we believe that investors may find it useful to consider the impact of excluding changes in foreign exchange rates from our revenue.

We believe that presenting the non-GAAP financial measures used in this report provides investors greater transparency to the information used by our management for financial and operational decision-making and allows investors to see our results "through the eyes" of management. We also believe that providing this information better enables our investors to understand our operating performance and evaluate the methodology used by management to evaluate and measure such performance.

Non-GAAP financial measures have limitations as analytical tools and should not be considered in isolation or as a substitute for our financial results prepared in accordance with GAAP. Some limitations associated with using these non-GAAP financial measures are provided below:

- Management exercises judgment in determining which types of charges or other items should be excluded from the non-GAAP financial measures used.
- Amortization expense, while not requiring cash settlement, is an ongoing and recurring expense, has a material impact on GAAP net loss, and reflects an economic cost to us not reflected in non-GAAP net loss. Intangible asset impairment, while not requiring cash settlement, has a material impact on GAAP net loss, and reflects an economic cost to us not reflected in non-GAAP net loss.
- Items such as the acquisition transaction and integration costs and contingent consideration expense, excluded from non-GAAP net loss, can have a material impact on cash flows and GAAP net loss and reflect economic costs to us not reflected in non-GAAP net loss.
- Revenue growth rates stated on a constant currency basis, by their nature, exclude the impact of changes in foreign currency exchange rates, which may have a material impact on GAAP revenue.
- Non-GAAP financial measures are not based on any comprehensive set of accounting rules or principles and therefore other companies may calculate similarly titled non-GAAP financial measures differently than we do, limiting the usefulness of those measures for comparative purposes.

ITEM 7A. *Quantitative and Qualitative Disclosure About Market Risk*

Market risk represents the risk of changes in the value of market risk instruments caused by fluctuations in interest rates, foreign exchange rates and commodity prices. Changes in these factors could cause fluctuations in our results of operations and cash flows. In the ordinary course of business, we are primarily exposed to foreign exchange risk and interest rate risk.

Our reporting currency is the U.S. dollar and our exposure to foreign currency risk is primarily related to sales of our products in Europe, which are denominated primarily in the euro and translated into U.S. dollars. Changes in the exchange rate between the euro and the U.S. dollar could positively or adversely affect our revenue and net loss. In addition, we record foreign currency transaction gains and losses, included in other expense, which result from intercompany transactions with our Dutch subsidiary, whose functional currency is the euro.

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Exposure to foreign currency exchange rate risk may increase over time as our business evolves and our products continue to be introduced into international markets. Currently, we do not hedge against any foreign currencies and, as a result, we could incur gains or losses. The fluctuation in currency rates during the year ended December 31, 2016 compared with the December 31, 2015 caused a decrease of approximately \$0.2 million in consolidated revenue and decrease of \$0.1 million in consolidated net loss.

Based on our overall foreign currency exchange rate exposure as of December 31, 2016, a 10% appreciation or depreciation of the U.S. dollar would have had a positive or negative impact on our consolidated revenue for the year ended December 31, 2016 of approximately \$2.8 million.

The Notes are at fixed rates, and therefore are not subject to market risk. As of December 31, 2016, we are exposed to interest rate risk related to our \$50 million Revolving Loan Facility and our \$60 million Term Loan Facility. A 100 basis point fluctuation in market interest rates underlying our Revolving Loan Facility and Term Loan Facility would have the effect of increasing or decreasing our cash interest expense by approximately \$0.8 million for an annual period on the \$24.7 million Revolving Loan Facility balance and \$60.0 million Term Loan Facility balance outstanding as of December 31, 2016.

ITEM 8. *Financial Statements and Supplementary Data*

See the [Index to Consolidated Financial Statements](#) in Part IV, Item 15 on page F-1 of this annual report.

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

None.

ITEM 9A. Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC'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 provide only reasonable assurance of achieving the desired control objectives, and management was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by Exchange Act Rule 13a-15(b), we carried out an evaluation, under the supervision of and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2016. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2016.

There has been no change in our internal control over financial reporting during the fiscal quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Management's Annual Report on Internal Control over Financial Reporting

Our management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal controls were designed to provide reasonable assurance as to the reliability of our financial reporting and the preparation and presentation of our consolidated financial statements for external purposes in accordance with accounting principles generally accepted in the United States and 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 our assets; (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 our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Management has used the framework set forth in the report entitled *Internal Control-Integrated Framework (2013)* published by the Committee of Sponsoring Organizations of the Treadway Commission to evaluate the effectiveness of our internal control over financial reporting. Management has concluded that our internal control over financial reporting was effective as of December 31, 2016. KPMG LLP, an independent registered public accounting firm, has audited our accompanying consolidated financial statements and our internal control over financial reporting. The report of the independent registered public accounting firm is included in this annual report on Form 10-K.

ITEM 9B. *Other Information*

None.

PART III

ITEM 10. *Directors, Executive Officers and Corporate Governance*

The information required by Item 10 is incorporated by reference from our definitive Proxy Statement to be used in connection with our 2017 Annual Meeting of Stockholders, which will be filed within 120 days from December 31, 2016.

ITEM 11. *Executive Compensation*

The information required by Item 11 is incorporated by reference from our definitive Proxy Statement to be used in connection with our 2017 Annual Meeting of Stockholders, which will be filed within 120 days from December 31, 2016.

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

The information required by Item 12 is incorporated by reference from our definitive Proxy Statement to be used in connection with our 2017 Annual Meeting of Stockholders, which will be filed within 120 days from December 31, 2016.

ITEM 13. *Certain Relationships and Related Transactions, and Director Independence*

The information required by Item 13 is incorporated by reference from our definitive Proxy Statement to be used in connection with our 2017 Annual Meeting of Stockholders, which will be filed within 120 days from December 31, 2016.

ITEM 14. *Principal Accountant Fees and Services*

The information required by Item 14 is incorporated by reference from our definitive Proxy Statement to be used in connection with our 2017 Annual Meeting of Stockholders, which will be filed within 120 days from December 31, 2016.

PART IV

ITEM 15. *Exhibits and Financial Statement Schedules*

(a) *Documents Filed as a Part of The Report*

(1) Consolidated Financial Statements

See [Index to Consolidated Financial Statements](#) on page F-1 of this Form 10-K.

(2) Financial Statement Schedules

Schedule II—Valuation and Qualifying Accounts is included within the Consolidated Financial Statements. All other schedules are omitted because the required information is not applicable.

(3) Exhibits

See [Exhibit Index](#) immediately following the Consolidated Financial Statements.

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**

ITEM 16. Form 10-K Summary

None.

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, in the City of Colorado Springs, State of Colorado, on this 24th day of February, 2017.

THE SPECTRANETICS CORPORATION

By:

/s/ SCOTT DRAKE

Scott Drake
President and Chief Executive Officer

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 in the capacities and on the date indicated.

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ SCOTT DRAKE</u> Scott Drake	Director, President and Chief Executive Officer (Principal Executive Officer)	February 24, 2017
<u>/s/ STACY P. MCMAHAN</u> Stacy P. McMahan	Chief Financial Officer (Principal Financial and Accounting Officer)	February 24, 2017
<u>/s/ R. JOHN FLETCHER</u> R. John Fletcher	Director and Chairman of the Board of Directors	February 24, 2017
<u>/s/ WILLIAM C. JENNINGS</u> William C. Jennings	Director	February 24, 2017
<u>/s/ B. KRISTINE JOHNSON</u> B. Kristine Johnson	Director	February 24, 2017
<u>/s/ DANIEL A. PELAK</u> Daniel A. Pelak	Director	February 24, 2017
<u>/s/ JOSEPH M. RUGGIO, M.D.</u> Joseph M. Ruggio, M.D.	Director	February 24, 2017
<u>/s/ MARIA SAINZ</u> Maria Sainz	Director	February 24, 2017
<u>/s/ TODD SCHERMERHORN</u> Todd Schermerhorn	Director	February 24, 2017

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**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
The Spectranetics Corporation:

We have audited the accompanying consolidated balance sheets of The Spectranetics Corporation and subsidiaries (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of operations and comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016. In connection with our audits of the consolidated financial statements, we have also audited financial statement Schedule II - Valuation and Qualifying Accounts. We also have audited the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these consolidated financial statements, the related financial statement schedule, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and related financial statement schedule, and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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.

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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.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement Schedule II - Valuation and Qualifying Accounts, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

/s/ KPMG LLP

Denver, Colorado
February 24, 2017

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**

**Consolidated Balance Sheets
December 31, 2016 and 2015**

	2016	2015
	(In thousands, except share amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 57,237	\$ 84,594
Trade accounts receivable, less allowance for doubtful accounts and sales returns of \$1,629 and \$1,906, respectively	43,565	43,359
Inventories, net	27,642	25,155
Prepaid expenses and other current assets	7,088	5,171
Total current assets	135,532	158,279
Property and equipment, net	44,827	44,719
Goodwill	148,811	152,616
Other intangible assets, net	98,229	110,456
Other assets	2,679	1,929
Total assets	\$ 430,078	\$ 467,999
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Borrowings under revolving line of credit	\$ 24,712	\$ 24,232
Accounts payable	6,230	4,150
Accrued liabilities	34,381	33,676
Deferred revenue	1,619	1,621
Total current liabilities	66,942	63,679
Convertible senior notes, net of debt issuance costs	225,095	224,076
Term loan, net of debt issuance costs	59,664	59,601
Accrued liabilities, net of current portion	1,688	1,759
Deferred income taxes	2,366	1,915
Total liabilities	355,755	351,030
Commitments and contingencies (Note 13)		
Stockholders' equity:		
Preferred stock, \$0.001 par value. Authorized 5,000,000 shares; none issued	—	—
Common stock, \$0.001 par value. Authorized 120,000,000 shares; issued and outstanding 43,303,298 and 42,659,234 shares, respectively	43	42
Additional paid-in capital	332,701	313,442
Accumulated other comprehensive loss	(5,696)	(1,910)
Accumulated deficit	(252,725)	(194,605)
Total stockholders' equity	74,323	116,969
Total liabilities and stockholders' equity	\$ 430,078	\$ 467,999

The accompanying notes are an integral part of the consolidated financial statements.

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**

**Consolidated Statements of Operations and Comprehensive Loss
Years ended December 31, 2016, 2015 and 2014**

	2016	2015	2014
	(in thousands, except share and per share amounts)		
Revenue	\$ 270,823	\$ 245,956	\$ 204,914
Cost of products sold	68,326	62,883	51,385
Amortization of acquired inventory step-up	—	251	2,074
Gross profit	202,497	182,822	151,455
Operating expenses:			
Selling, general and administrative	164,289	143,355	128,129
Research, development and other technology	67,480	64,436	28,675
Medical device excise tax	—	3,465	2,834
Acquisition transaction, integration and legal costs	1,922	29,472	17,288
Intangible asset amortization	12,227	13,275	6,335
Contingent consideration expense	214	2,671	2,070
Reduction in fair value of contingent consideration liability	—	(25,819)	(1,064)
Intangible asset impairment	—	2,496	4,138
Total operating expenses	246,132	233,351	188,405
Operating loss	(43,635)	(50,529)	(36,950)
Other expense:			
Interest expense	(13,295)	(7,850)	(4,062)
Foreign currency transaction loss	(403)	(369)	(211)
Total other expense	(13,698)	(8,219)	(4,273)
Loss before income taxes	(57,333)	(58,748)	(41,223)
Income tax expense (benefit)	787	726	(322)
Net loss	\$ (58,120)	\$ (59,474)	\$ (40,901)
Net loss per share:			
Net loss per share, basic and diluted	\$ (1.35)	\$ (1.40)	\$ (0.98)
Other comprehensive loss, net of tax			
Foreign currency translation adjustments, net of tax	(3,786)	(630)	(975)
Comprehensive loss, net of tax	\$ (61,906)	\$ (60,104)	\$ (41,876)
Weighted average common shares outstanding:			
Basic and diluted	42,935,442	42,430,221	41,679,369

The accompanying notes are an integral part of the consolidated financial statements.

**THE SPECTRANETICS CORPORATION
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**Consolidated Statements of Stockholders' Equity
Years ended December 31, 2016, 2015 and 2014**

(in thousands, except share amounts)	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Amount				
Balances at January 1, 2014	41,230,286	\$ 41	\$ 284,494	\$ (94,230)	\$ (305)	\$ 190,000
Comprehensive loss, net of tax	—	—	—	(40,901)	(975)	(41,876)
Exercise of stock options	672,739	1	4,810	—	—	4,811
Shares purchased under employee stock purchase plan	94,432	—	906	—	—	906
Issuance of restricted stock awards and vesting of restricted stock units	63,408	—	—	—	—	—
Paid in capital from stock-based compensation expense	—	—	8,316	—	—	8,316
Balances at December 31, 2014	42,060,865	42	298,526	(135,131)	(1,280)	162,157
Comprehensive loss, net of tax	—	—	—	(59,474)	(630)	(60,104)
Exercise of stock options	375,046	—	1,778	—	—	1,778
Shares purchased under employee stock purchase plan	153,865	—	3,027	—	—	3,027
Issuance of restricted stock awards and vesting of restricted stock units	69,458	—	—	—	—	—
Paid in capital from stock-based compensation expense	—	—	10,111	—	—	10,111
Balances at December 31, 2015	42,659,234	42	313,442	(194,605)	(1,910)	116,969
Comprehensive loss, net of tax	—	—	—	(58,120)	(3,786)	(61,906)
Exercise of stock options	290,384	1	2,558	—	—	2,559
Shares purchased under employee stock purchase plan	211,343	—	2,697	—	—	2,697
Issuance of restricted stock awards and vesting of restricted stock units and performance stock units	142,337	—	—	—	—	—
Paid in capital from stock-based compensation expense	—	—	14,004	—	—	14,004
Balances at December 31, 2016	43,303,298	\$ 43	\$ 332,701	\$ (252,725)	\$ (5,696)	\$ 74,323

The accompanying notes are an integral part of the consolidated financial statements.

**THE SPECTRANETICS CORPORATION
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**Consolidated Statements of Cash Flows
Years ended December 31, 2016, 2015 and 2014**

	2016	2015	2014
	(in thousands)		
Cash flows from operating activities:			
Net loss	\$ (58,120)	\$ (59,474)	\$ (40,901)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization	27,422	26,588	16,813
Stock-based compensation expense	14,004	10,111	8,316
Amortization of debt issuance costs	1,140	993	562
Provision for excess and obsolete inventories	1,051	981	426
Intangible asset impairment	—	2,496	4,138
Contingent consideration expense	214	2,671	2,070
Change in fair value of contingent consideration liability	(2,300)	(25,818)	(1,064)
Deferred income taxes	451	486	(909)
Changes in operating assets and liabilities:			
Trade accounts receivable	(398)	(2,720)	(6,369)
Inventories	(3,678)	497	(2,960)
Equipment held for rental or loan, net	(9,774)	(12,098)	(9,232)
Prepaid expenses and other current assets	(1,440)	2,906	(5,028)
Other assets	(787)	(686)	(91)
Accounts payable and accrued liabilities	7,778	(6,160)	13,650
Deferred revenue	4	(232)	130
Net cash (used in) operating activities	(24,433)	(59,459)	(20,449)
Cash flows from investing activities:			
Capital expenditures	(5,354)	(9,538)	(6,722)
Payments for acquisitions	—	(30,000)	(233,978)
Net cash (used in) investing activities	(5,354)	(39,538)	(240,700)
Cash flows from financing activities:			
Proceeds from issuance of convertible senior notes	—	—	230,000
Proceeds from issuance of term loan	—	60,000	—
Proceeds from line of credit, net	481	24,232	—
Debt issuance costs	—	(405)	(7,474)
Proceeds from the exercise of stock options and employee stock purchase plan, net of tax withholdings on stock compensation awards	4,679	4,805	5,717
Payment of contingent consideration	(2,788)	(393)	—
Net cash provided by financing activities	2,372	88,239	228,243
Effect of exchange rate changes on cash	58	(153)	16
Net decrease in cash and cash equivalents	\$ (27,357)	\$ (10,911)	\$ (32,890)
Cash and cash equivalents at beginning of period	84,594	95,505	128,395
Cash and cash equivalents at end of period	\$ 57,237	\$ 84,594	\$ 95,505
Supplemental disclosures of non-cash financing information:			
Receivable for exercise of stock options	\$ 577	\$ —	\$ —
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 12,107	\$ 6,457	\$ 3,031
Cash paid for taxes	\$ 445	\$ 327	\$ 787

The accompanying notes are an integral part of the consolidated financial statements.

**THE SPECTRANETICS CORPORATION
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Notes to Consolidated Financial Statements**

NOTE 1 — SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization, Nature of Business, and Basis of Presentation

The accompanying consolidated financial statements include the accounts of The Spectranetics Corporation, a Delaware corporation, and its wholly-owned Dutch subsidiary, Spectranetics International, B.V., including the accounts of the wholly-owned subsidiaries of Spectranetics International, B.V.: Spectranetics II B.V., Spectranetics Deutschland GmbH, Spectranetics Austria GmbH, Spectranetics France SARL, Spectranetics Switzerland GmbH, and Spectranetics Denmark ApS. The consolidated financial statements as of and for the years ended December 31, 2016 and 2015 also include the accounts of The Spectranetics Corporation's wholly-owned subsidiary, AngioScore Inc., which was acquired on June 30, 2014. The aforementioned entities are collectively referred to as the "Company." All intercompany balances and transactions have been eliminated in consolidation.

The Company develops, manufactures, markets, and distributes medical devices and products used in minimally invasive procedures within the cardiovascular system. The Company's devices and products are available in over 65 countries and are used to cross, prepare, and treat arterial blockages in the legs and heart and to remove pacemaker and defibrillator cardiac leads. In June 2014, the Company acquired AngioScore, a leading developer, manufacturer and marketer of cardiovascular, specialty balloon catheters. In January 2015, the Company acquired the Stellarex drug-coated balloon assets from Covidien LP.

Use of Estimates

Preparing the consolidated financial statements in conformity with accounting principles generally accepted in the U.S. ("U.S. GAAP") requires management of the Company to make several estimates and assumptions relating to the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the period. Significant items subject to such estimates and assumptions include the carrying amount of property and equipment, goodwill and intangible assets; valuation allowances for receivables, inventories, sales returns and deferred income tax assets; contingent consideration liabilities for acquisitions; stock-based compensation expense; estimated clinical trial expenses; accrued costs for incurred but not reported claims under partially self-insured employee health benefit programs; and loss contingencies, including those related to litigation. Actual results could differ from those estimates.

Reclassifications

Certain prior period amounts have been reclassified to conform to the current year presentation. Noncurrent contingent consideration liabilities have been combined into noncurrent accrued liabilities on the consolidated balance sheets for all periods presented. Additionally, amortization of debt issuance costs have been included in interest expense in Note 10, "Segment and Geographic Reporting".

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. At times, the Company maintains deposits in financial institutions in excess of federally insured limits.

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Notes to Consolidated Financial Statements (Continued)**

Financial Instruments

Financial instruments included in our financial statements are comprised of cash and cash equivalents, trade accounts receivable, accounts payable, certain accrued liabilities, a line of credit facility (the "Revolving Loan Facility"), convertible senior notes ("Notes"), a term loan facility (the "Term Loan Facility") and contingent consideration liabilities.

Fair Value Measurements

Fair value is defined as an exit price that would be received from the sale of an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Authoritative guidance establishes a three-level hierarchy for disclosure that is based on the extent and level of judgment used to estimate the fair value of assets and liabilities.

- Level 1 Inputs - Quoted prices (unadjusted) in active markets for identical assets or liabilities that the reporting entity can access at the measurement date.
- Level 2 Inputs - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3 Inputs - Unobservable inputs for the asset or liability.

The Company's cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities are carried at amortized cost, as the fair values of these instruments approximate their carrying values due to their short-term nature. As of December 31, 2016, cash equivalents consisted of money market accounts and U.S. treasury securities with original maturities of three months or less, which the Company classified as Level 1, given the active market for these accounts.

The fair value of the Notes is influenced by interest rates, the stock price of the Company's common stock, and stock price volatility, which is determined by market trading. As of December 31, 2016, the estimated fair value of the Notes was \$241.2 million and was determined based on quoted market prices in a secondary market, which is considered a Level 2 Input measurement. The carrying amounts of the Term Loan Facility and Revolving Loan Facility are considered reasonable estimates of fair value due to their floating-rate terms. See further discussion of these items in Note 11, "Debt."

Trade Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is the Company's best estimate of probable credit losses in the Company's existing accounts receivable. The Company determines the allowance for doubtful accounts based upon an aging of accounts receivable, historical experience and management judgment. Larger or past due accounts receivable balances are reviewed individually for collectibility. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is remote.

Inventory

Inventory is recorded at the lower of cost or market. Cost is determined using the first-in, first-out method. The Company calculates inventory reserves for estimated obsolescence or excess inventory based on historical

**THE SPECTRANETICS CORPORATION
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usage and sales, and assumptions about future demand for and utilization of its products, and these reserves create a new cost basis for the subsequent accounting of the inventory. These estimates for excess and obsolete inventory are reviewed and updated on a quarterly basis. Increases in the inventory reserves result in a corresponding expense, which is recorded to cost of goods sold.

Property and Equipment

Property and equipment are recorded at cost. Repairs and maintenance costs are expensed as incurred.

Depreciation is calculated using the straight-line method over the estimated useful lives of the assets of three to five years for manufacturing equipment, equipment held for rental or loan, computers, and furniture and fixtures. The building the Company owns is depreciated using the straight-line method over its estimated useful life of 20 years. Leasehold improvements are amortized using the straight-line method over the shorter of the lease term or estimated useful life of the asset.

Goodwill and Other Intangible Assets

Goodwill represents the excess of costs over the fair value of the identifiable net assets of businesses acquired. Goodwill and intangible assets acquired in a business combination and determined to have indefinite useful lives are not amortized, but instead are tested for impairment at least annually and whenever events or circumstances indicate the carrying amount of the asset may not be recoverable. In evaluating goodwill and indefinite-lived intangible assets, the Company performs an assessment of qualitative factors to determine if goodwill is more likely than not impaired and whether it is necessary to perform the two-step goodwill impairment test. The Company conducts its annual impairment test as of December 31 of each year. See further discussion in Note 5, "Goodwill and Other Intangible Assets."

Long-Lived Assets

The Company reviews long-lived assets and certain amortizable intangibles for impairment whenever events or circumstances indicate the carrying amount of an asset may not be recoverable. The carrying value of a long-lived asset is considered impaired when the expected undiscounted cash flows from such asset are separately identifiable and are less than the carrying value. Fair value is determined by reference to quoted market prices, if available, or the utilization of certain valuation techniques such as cash flows discounted at a rate commensurate with the risk involved. Assets to be disposed of are reported at the lower of the carrying amount or fair value, less selling costs. There were no impairment charges in 2016 and 2015 related to long-lived assets. In 2014, the Company recorded an intangible asset impairment charge for intangible assets acquired in 2013, as further discussed in Note 5, "Goodwill and Other Intangible Assets."

Intangible assets with finite lives are amortized over their respective estimated useful lives to their estimated residual values, and reviewed for impairment whenever events or circumstances indicate their carrying amount may not be recoverable. Intangible assets with finite lives, which consist primarily of technology intangible assets, customer relationships, trademarks, and trade names, are amortized using the straight-line method over periods that currently range from two to twelve years.

In-Process Research and Development

The Company defines in process research and development ("IPR&D") as the value of technology acquired for which the related products have not yet reached technological feasibility and have no future alternative use. The

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primary basis for determining the technological feasibility of these projects is obtaining regulatory approval to market the underlying products in an applicable geographic region. IPR&D acquired in a business combination requires the estimated fair value of IPR&D to be capitalized as an indefinite-lived intangible asset until completion or abandonment of the IPR&D project. Upon completion of the development project, the IPR&D is amortized over its estimated useful life. If the IPR&D projects are abandoned, the related IPR&D assets would be written off. The estimated fair value of IPR&D is determined using an income approach model.

In 2015, the Company recorded an intangible asset impairment charge related to a partial impairment of the IPR&D intangible assets acquired as part of the AngioScore acquisition. At December 31, 2016, IPR&D represented an estimate of the fair value of in-process technology acquired in the AngioScore and Stellarex acquisitions. See further discussion in Note 2, "Business Combinations."

Revenue Recognition

The Company recognizes revenue when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collectibility is reasonably assured. Revenue from the sale of the Company's disposable products is recognized when products are shipped to the customer and title transfers. In general, customers do not have a right of return for credit or refund. However, the Company allows returns under certain circumstances and records an allowance for sales returns based upon an analysis of revenue transactions and historical experience of sales returns. Write-offs to customer account balances for product returns are charged against the allowance for sales returns. Revenue from the sale of CVX-300 laser systems is recognized after completion of contractual obligations, which generally include delivery and installation of the systems. The Company's field service engineers are responsible for installation of each laser system. The Company generally provides a one-year warranty on laser sales, which includes parts, labor and replacement gas. Upon expiration of the warranty period, the Company offers similar service to its customers under annual service contracts or on a fee-for-service basis. Revenue from fee-for-service arrangements is recognized upon completion of the related service.

The Company accounts for service provided during the one-year warranty or service contract period as a separate unit of accounting. As such, the fair value of this service is deferred and recognized as revenue on a straight-line basis over the related warranty or service contract term, and warranty and service costs are expensed in the period they are incurred. Revenue recognized associated with service performed during the warranty period totaled \$0.7 million, \$0.6 million and \$0.7 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The Company offers four laser system placement programs, which are described below, in addition to the sale of laser systems:

Straight rental program. The Company offers a straight monthly rental program for laser systems, and customers pay rent of \$2,500 to \$3,500 per month under this program. Rental revenue is invoiced and recognized monthly. The laser system is transferred to the equipment held for rental or loan account upon shipment, and depreciation expense is included in cost of revenue based upon the five-year expected life of the laser system. Costs to maintain the equipment are expensed as incurred.

Volume-based rental programs. Rental revenue under these programs varies on a sliding scale depending on the customer's purchases of disposable products (either unit or dollar volume) each month. Rental revenue is invoiced and recognized monthly. The laser system is transferred to the equipment held for rental or loan account

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upon shipment, and depreciation expense is included in cost of revenue based upon the five-year expected life of the laser system. Costs to maintain the equipment are expensed as incurred.

Capital included rental program. Under this program, the customer agrees to a catheter price list that includes a per-unit surcharge covering the cost of the laser system. Customers are expected, but not required, to make minimum purchases of catheters at regular intervals, and the Company reserves the right to require the customer to return the laser system if the customer does not make minimum purchases of catheters. The Company recognizes the total surcharge as rental revenue upon shipment of the catheters, believing it to be the best measurement of revenue associated with the customer's use of the laser system. The laser system is transferred to the equipment held for rental or loan account upon shipment, and depreciation expense is included in cost of revenue based upon the five-year expected life of the laser system. Costs to maintain the equipment are expensed as incurred.

Evaluation program. The Company loans laser systems to institutions for use over a short period, usually three months. The loan of the equipment is to create awareness of the Company's products and allows users to assess their therapeutic capabilities. While no revenue is earned or recognized in connection with the placement of a loaned laser, sales of disposable products result from the laser placement. The laser system is transferred to the equipment held for rental or loan account upon shipment and depreciation expense is recorded within selling, general and administrative expense based upon the five-year expected life of the laser system. Costs to maintain the equipment are expensed as incurred.

The Company sells to end-users in the U.S. and internationally as well as to certain international distributors. Sales to international distributors represented approximately 8% of the Company's total revenue in 2016. Distributor agreements are in place with each distributor, which outline the significant terms of the transactions between the distributor and the Company. The terms and conditions of sales to the Company's international distributors do not differ materially from the terms and conditions of sales to its domestic and international end-user customers. Sales to distributors are recognized either at shipment or a later date in accordance with the agreed upon contract terms with distributors, provided that the Company has received an order, the price is fixed or determinable, collectibility of the resulting receivable is reasonably assured, all contractual obligations have been met and the Company can reasonably estimate returns. The Company provides products to its distributors at agreed wholesale prices and typically does not provide any special right of return or exchange, discounts, significant sales incentives, price protection or stock rotation rights to any of its distributors.

Deferred Revenue

Deferred revenue was \$1.6 million at both December 31, 2016 and 2015, respectively. These amounts primarily relate to payments in advance for various product maintenance contracts in which revenue is initially deferred and recognized over the life of the contract, which is generally one year, and to deferred revenue associated with service provided to customers during the warranty period after the sale of laser systems.

Medical Device Excise Tax

The Patient Protection and Affordable Care Act of 2010 imposes a medical device excise tax on medical device manufacturers on their sales in the U.S. of certain devices, which was effective January 1, 2013. The excise tax is 2.3% of the taxable base and applies to a substantial majority of the Company's U.S. sales. In December 2015, legislation was enacted that suspends the medical device excise tax for 2016 and 2017. As a result, the Company did not incur any excise tax for the year ended December 31, 2016. For the years ended December 31, 2015 and 2014 the Company incurred \$3.5 million, and \$2.8 million of excise tax, respectively, which is recorded in the

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Notes to Consolidated Financial Statements (Continued)**

consolidated statements of operations and comprehensive loss as an operating expense under the caption "Medical device excise tax."

Stock-Based Compensation

The Company measures all employee stock-based compensation awards using a fair value method and records such expense in its consolidated financial statements. The estimated value of the portion of the award that is ultimately expected to vest, taking into consideration estimated forfeitures based on the Company's historical forfeiture rate, is recognized as expense over the requisite service periods in the Company's consolidated statements of operations and comprehensive loss. The Company estimates the grant date fair value of stock option awards generally on the date of grant using the Black-Scholes option pricing model. For certain options, which contained vesting provisions that included a share price trigger, the Company estimated the fair value of the options using a trinomial lattice model. With respect to performance stock units ("PSUs"), the number of shares that vest and are issued to the recipient is based upon the Company's performance as measured against specified targets over a specified time period. The fair value of the PSUs is based on the Company's closing stock price on the grant date and its estimate of achieving such performance targets. See further discussion and disclosures in Note 7, "Stock-based Compensation and Employee Benefit Plans."

Research, Development and Other Technology

Research, development and other technology costs are expensed as incurred and totaled \$67.5 million, \$64.4 million, and \$28.7 million for the years ended December 31, 2016, 2015, and 2014, respectively. In addition to product development costs, research, development and other technology costs include royalty expenses that the Company pays to license certain intellectual property incorporated in the Company's products. Royalty expenses totaled \$4.8 million, \$3.6 million, and \$2.7 million for the years ended December 31, 2016, 2015, and 2014, respectively.

Clinical trial costs. The Company sponsors clinical trials intended to obtain the necessary clinical data required to obtain approval from the U.S. Food and Drug Administration ("FDA") and foreign regulatory agencies to market new applications of its technology. Costs associated with these clinical trials are also included within research, development and other technology costs and totaled \$15.5 million, \$20.0 million, and \$4.1 million for the years ended December 31, 2016, 2015, and 2014, respectively. The increase in clinical trial costs during the years ended December 31, 2016 and 2015 is primarily related to additional clinical trials for Stellarex.

In certain cases, substantial portions of the Company's clinical trials are performed by third-party clinical research organizations ("CROs"). These CROs generally bill monthly for services performed and also bill based upon milestone achievement. The Company accrues for services as provided, when services are performed before milestone payments are made. If the Company prepays CRO fees or milestone payments, the Company records the prepayment as a prepaid asset and amortizes the asset into research, development and other technology expense over the period of time the contracted services are performed based upon the number of patients enrolled, "patient months" incurred and the duration of the study. The Company monitors patient enrollment, the progress of clinical studies and related activities through internal reviews of data reported to the Company by the CROs and correspondence with the CROs. The Company periodically evaluates its estimates to determine if adjustments are necessary or appropriate based on information it receives.

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Notes to Consolidated Financial Statements (Continued)**

Foreign Currency

The Company's reporting currency is the U.S. dollar. Certain transactions of the Company and its subsidiaries are denominated in currencies other than the U.S. dollar. The functional currency of the Company's foreign operations generally is the applicable local currency. Assets and liabilities of non-U.S. dollar functional currency entities are translated to U.S. dollars at period-end exchange rates, and the resulting gains and losses arising from the translation of those net assets are recorded as a cumulative translation adjustment, a component of accumulated other comprehensive loss on the consolidated balance sheets. Elements of the consolidated statements of operations and comprehensive loss are translated at the average monthly currency exchange rates in effect during the period and foreign currency transaction gains and losses are included in other income (expense).

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs of approximately \$1.3 million, \$1.6 million and \$2.0 million were expensed for the years ended December 31, 2016, 2015 and 2014, respectively.

Medical Self-insurance Costs

The Company is partially self-insured for claims relating to employee medical and dental benefit programs. The medical self-insurance program is administered by a third-party and contains stop-loss provisions on both an individual claim basis and in the aggregate. The Company records claims incurred as an expense each period, including an estimate of claims incurred but not yet reported, which is revised quarterly. The Company uses claims data and historical experience, as applicable, to estimate the liability for unreported claims.

Income Taxes

Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, operating losses and research and development and alternative minimum tax credit carryforwards. A valuation allowance is required to the extent it is more-likely-than-not that a deferred tax asset will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in operations in the period that includes the enactment date. The Company recognizes the financial statement effects of a tax position when it is more-likely-than-not, based on technical merits, that the position will be sustained upon examination. There are no significant interest and penalties recognized in the consolidated statements of operations and comprehensive loss or on the consolidated balance sheet. See further discussion and disclosures in Note 12, "Income Taxes."

Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Accounting for Goodwill Impairment*. The guidance removes the requirement to perform a hypothetical purchase price allocation to measure goodwill impairment. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The guidance becomes effective for annual reporting periods beginning after December 15, 2019 with early adoption permitted, and applied prospectively. The Company is currently evaluating this guidance and its impact on its results of operations, financial position, and consolidated financial statements.

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In October 2016, the FASB issued ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfer of Assets Other than Inventory*. The guidance requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. The guidance becomes effective for annual reporting periods beginning after December 15, 2017 with early adoption permitted. This ASU is required to be adopted using the modified retrospective approach, with a cumulative catch-up adjustment to retained earnings in the period of adoption. The Company is currently evaluating the impact of adopting this ASU on its consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which clarifies how companies present and classify certain cash receipts and cash payments in the statement of cash flows. The amendments in ASU 2016-15 are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The Company is in the process of determining the timing of adoption and assessing the impact of ASU 2016-15 on its consolidated statements of cash flows.

In March 2016, the FASB issued ASU 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. ASU 2016-09 simplifies several aspects related to the accounting for share-based payment transactions, including the accounting for income taxes, forfeitures, statutory tax withholding requirements and classification on the statement of cash flows. For public business entities, ASU 2016-09 is effective for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The impact of adopting this standard on the Company's consolidated financial statements is dependent upon the intrinsic value of share-based compensation awards at the time of exercise or vesting and will result in increased net operating losses which will increase our deferred tax assets and result in an offsetting valuation allowance. The Company adopted this ASU on January 1, 2017. The Company does not expect adoption of the new stock compensation standards to have a material impact on the recognition of stock compensation.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*, which requires a lessee to recognize on its balance sheet the assets and liabilities for the rights and obligations created by leases with a lease term of more than twelve months. Leases will continue to be classified as either financing or operating, with classification affecting the recognition, measurement and presentation of expenses and cash flows arising from a lease. Lessor accounting is largely unchanged from previous GAAP. However, changes were made to align the guidance with the lessor guidance and the new revenue recognition guidance under ASU 2014-09 referenced below. For public business entities, ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years, and requires a modified retrospective approach to adoption for lessees related to capital and operating leases existing at, or entered into after, the earliest comparative period presented in the financial statements. Early adoption is permitted. The Company is in the process of determining the timing and method of adoption and assessing the impact of ASU 2016-02 on its results of operations, financial position, and consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*, which will replace most existing revenue recognition guidance in U.S. GAAP. The core principle of ASU 2014-09 is that an entity should recognize revenue for the transfer of goods or services equal to the amount that it expects to be entitled in exchange for those goods or services. To achieve this core principle, ASU 2014-09 contains a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when (or as) an entity satisfies a performance obligation. ASU 2014-09 requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including

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significant judgments and changes in judgments. In April 2016, the FASB issued ASU 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*. ASU 2016-10 provides for amendments to ASU 2014-09, reducing the complexity when applying the guidance for identifying performance obligations and improving the operability and understandability of the license implementation guidance. In May 2016, the FASB issued ASU 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*. ASU 2016-12 provides for amendments to ASU 2014-09, amending the guidance on transition, collectability, noncash consideration and the presentation of sales and other similar taxes. ASU 2016-12 clarifies that, for a contract to be considered completed at transition, all (or substantially all) of the revenue must have been recognized under legacy U.S. GAAP. In addition, ASU 2016-12 clarifies how an entity should evaluate the collectability threshold and when an entity can recognize nonrefundable consideration received as revenue if an arrangement does not meet the standard's contract criteria. In December 2016, the FASB issued ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*, which makes minor corrections or minor improvements to ASU 2014-09 that are not expected to have a significant effect on current accounting practice or create a significant administrative cost to most entities. Under ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, issued in August 2015, these amendments are effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2017, and either the full retrospective method or the modified retrospective transition method is allowed. The Company will adopt the guidance for the fiscal year beginning after December 15, 2017 and apply the modified retrospective method. The modified retrospective approach requires the disclosure of the difference between revenue and costs that would have been recognized under current GAAP in the current period and the amounts that are recognized under the new standard. While a significant portion of our revenue will continue to be in scope of the leasing guidance, we are in the process of reviewing our sales contracts to identify any other changes as a result of the new guidance. While we do not expect significant changes, we expect to complete our analysis during the first half of 2017. The Company is not aware of other significant matters that will result from adoption of the revenue standard.

The Company has considered all other recently issued accounting pronouncements and does not believe they are of significance, or potential significance, to the Company.

NOTE 2 — BUSINESS COMBINATIONS

Stellarex

On January 27, 2015 ("Acquisition Date"), the Company acquired certain assets related to the Stellarex over-the-wire percutaneous transluminal angioplasty balloon catheter with a drug (paclitaxel) coated balloon ("DCB Assets"), pursuant to an Asset Purchase Agreement, dated as of October 31, 2014 ("Stellarex Purchase Agreement") with Covidien LP ("Stellarex Acquisition"). The DCB Assets include, among other things, the intellectual property, machinery and equipment, and inventories used in connection with the Stellarex catheter. The primary reasons for the Stellarex Acquisition were to broaden the Company's existing product lines, leverage its current customers, and increase revenue.

Under the terms of the Stellarex Purchase Agreement, the Company paid Covidien \$30 million in cash and Covidien retained certain liabilities relating to the DCB Assets.

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The Company accounted for the Stellarex Acquisition as a business combination and recorded the assets acquired and liabilities assumed at their respective estimated fair values as of the Acquisition Date. The following table summarizes the allocations to the assets acquired:

(in thousands)	Allocation of purchase price	Amortization period (in years)
Inventories	\$ 1,337	
Property and equipment, net	2,701	
Total tangible assets acquired	4,038	
Less: above market lease assumed	293	
Net tangible assets acquired	\$ 3,745	
Intangible assets:		
In-process research and development ("IPR&D")	13,680	
Technology	9,000	12
Trademark and trade names	400	12
Transition services agreement	530	0.5
Goodwill	2,645	
Total purchase price	\$ 30,000	

The Company determined the estimated fair value of the inventory based on its estimated selling price less cost to sell and normal profit margin, or in the case of inventory expected to be consumed in clinical studies, on replacement cost. The Company recorded the property and equipment at its estimated fair value at the Acquisition Date.

The IPR&D asset, which is accounted for as an indefinite-lived intangible asset until completion or abandonment of the project, represents an estimate of the fair value of in-process technology related to the Stellarex products that are currently the subject of clinical studies in advance of their potential introduction to the U.S. market, as well as the below the knee applications of the Stellarex technology, which are also currently in development. The estimated fair value was determined using the income approach.

The estimated fair value of the technology intangible asset, which relates to Stellarex products that have already received clearance to be made commercially available in the European market, was also determined using the income approach.

The trademark and trade names were valued based on the "relief from royalty" method. The "relief from royalty" method is based on the premise that a third party would be willing to pay a royalty to use the trade name or trademark asset owned by the subject company. The projected royalties are converted into their present value equivalents through the application of a risk-adjusted discount rate.

The transition services agreement was valued based on the estimated fair value of services provided by Covidien to the Company under the agreement.

These fair value measurements are based on significant unobservable inputs, which are classified as Level 3 within the fair value hierarchy based on management's estimates and assumptions.

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The Company recorded the excess of the aggregate purchase price over the estimated fair values of the identifiable net assets acquired as goodwill, which is deductible for tax purposes. Goodwill is primarily attributable to the benefits of the acquired workforce and future technologies, which will be developed from the current and IPR&D technologies to further expand the Company's product offerings and applications of the technology. Goodwill was allocated to the Company's operating segments based on the relative expected benefits as disclosed in Note 5, "Goodwill and Other Intangible Assets."

The assets and liabilities assumed in the Stellarex Acquisition were included in the Company's consolidated balance sheet as of January 27, 2015. Beginning on January 27, 2015, revenue, costs of products sold and operating expenses related to the DCB Assets have been included in the Company's consolidated financial statements in the Company's U.S. Medical and International Medical reportable operating segments.

Revenue from Stellarex products for the year ended December 31, 2016 and for the period from January 27, 2015 through December 31, 2015 was immaterial and is included in the Company's consolidated statements of operations and comprehensive loss for the years ended December 31, 2016 and December 31, 2015. Losses attributable to Stellarex for the year ended December 31, 2016 and for the period from January 27, 2015 through December 31, 2015 were \$35.9 million and \$44.4 million, respectively, and primarily included research and development and clinical trial costs, included within the "Research, development and other technology" line of the consolidated statements of operations and comprehensive loss. Also included in the losses attributable to Stellarex above were acquisition and integration expenses that totaled \$0.1 million and \$8.0 million for the year ended December 31, 2016 and for the period from January 27, 2015 through December 31, 2015, respectively, and primarily included non-recurring costs associated with establishing manufacturing operations to support the Stellarex program, and investment banking and legal fees incurred in connection with the acquisition. These costs are included within the "Acquisition transaction, integration and legal costs" line of the consolidated statements of operations and comprehensive loss.

AngioScore

On June 30, 2014, the Company completed its acquisition of AngioScore, Inc. At the date of acquisition, the Company recorded total contingent consideration of \$25.9 million.

The fair value of contingent consideration liabilities was determined using a probability-weighted approach to estimate the achievement of the future revenue and regulatory approval milestones and discount rates ranging from 9% to 19%. The selection of the discount rates reflects the inherent risks related to achieving the respective milestones. These fair value measurements are based on significant unobservable inputs, which are classified as Level 3 within the fair value hierarchy, based on management's estimates and assumptions. The fair value of the contingent milestone consideration is remeasured at the estimated fair value at each reporting period. Therefore, any changes in the fair value impacts our reported earnings in each reporting period, thereby resulting in variability in our earnings.

Contingent consideration arrangements obligate us to pay former shareholders of an acquired entity if specified future events occur or conditions are met such as the achievement of certain technological milestones or the achievement of targeted revenue milestones. We measure such liabilities using Level 3 unobservable inputs, applying the income approach, such as the discounted cash flow technique, or the probability-weighted scenario method. We use various key assumptions, such as the probability of achievement of the agreed milestones and the discount rate, in our determination of the fair value of contingent consideration. We monitor the fair value of the contingent consideration and the subsequent revisions are reflected in our consolidated statements of operations.

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During 2015, the Company remeasured the contingent consideration liability related to the AngioScore acquisition to its fair value and reduced it by approximately \$25.8 million. Of this amount, \$21.5 million was a result of a decrease in future revenue estimates for the AngioSculpt products. The remaining \$4.3 million was a result of an analysis performed by the Company related to the costs and efforts, including product testing, validation, coating and process testing, and regulatory requirements, remaining to complete the Drug-Coated AngioSculpt ("DCAS") projects, which are subject to contingent regulatory milestone payments. This analysis resulted in a determination that it was unlikely the Company would meet the regulatory milestones for two of the three DCAS projects within the time frame and with the expenditure of funds set forth in the acquisition agreement. Related to the regulatory milestone assessment, the Company evaluated the IPR&D associated with the product development projects for impairment using the income approach, and determined that a portion of the IPR&D was impaired. Therefore, the Company also recorded an impairment of the IPR&D intangible asset of \$2.5 million during the third quarter of 2015.

The following table presents changes to the Company's acquisition-related contingent consideration for the periods ending December 31, 2016 and 2015:

	2016	2015
Beginning balance	\$ 5,153	\$ 28,694
Purchase price contingent consideration	—	—
Change in fair value of contingent consideration	—	(25,819)
Contingent consideration payments	(5,088)	(393)
Contingent consideration accretion expense	214	2,671
Ending balance	<u>\$ 279</u>	<u>\$ 5,153</u>

During 2015, the Company recorded \$0.3 million of amortization of the acquired inventory step-up, reflected as "Amortization of acquired inventory step-up" in the consolidated statements of operations and comprehensive loss, increasing cost of products sold.

Expenses related to the acquisition of AngioScore and the subsequent integration of its operations were \$1.8 million and \$21.5 million for the years ended December 31, 2016 and 2015, respectively, and primarily included legal fees associated with a patent and breach of fiduciary duty matter in which AngioScore is the plaintiff. See Note 13, "Commitments and Contingencies." These expenses are included within the "Acquisition transaction, integration and legal costs" line of the consolidated statements of operations and comprehensive loss. In addition, we made a contingent consideration payment of \$5.0 million related to the acquisition of AngioScore during the year ended December 31, 2016.

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NOTE 3 — INVENTORIES

Inventories, net, consisted of the following:

(in thousands)	December 31,	
	2016	2015
Raw materials	\$ 11,070	\$ 10,838
Work in process	4,787	2,914
Finished goods	11,785	11,403
	<u>\$ 27,642</u>	<u>\$ 25,155</u>

At December 31, 2016 and 2015, approximately 52% and 68%, respectively, of our finished goods inventory was at customer locations pursuant to consignment arrangements.

On January 27, 2015, the Company acquired approximately \$1.3 million of inventories as part of the Stellarex Acquisition. As of December 31, 2016 and 2015, Stellarex inventories were approximately \$3.0 million and \$2.1 million, respectively.

NOTE 4 — PROPERTY AND EQUIPMENT

Property and equipment, net, consisted of the following:

(in thousands)	December 31,	
	2016	2015
Equipment held for rental or loan	\$ 62,972	\$ 55,774
Manufacturing equipment and computers	40,656	37,862
Leasehold improvements	10,453	8,984
Furniture and fixtures	5,099	4,840
Building and improvements	1,306	1,306
Land	270	271
Less: accumulated depreciation and amortization	(75,929)	(64,318)
Total property and equipment, net	<u>\$ 44,827</u>	<u>\$ 44,719</u>

Depreciation expense for the years ended December 31, 2016, 2015 and 2014 was \$14.3 million, \$12.3 million and \$9.5 million, respectively. In addition, software amortization expense for the years ended December 31, 2016, 2015 and 2014 was \$0.9 million, \$1.0 million and \$0.9 million, respectively.

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NOTE 5 — GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill. The Company's goodwill relates to the acquisition of the endovascular product lines of Kensey Nash Corporation in 2008, the acquisition of certain products from Upstream Peripheral Technologies Ltd. ("Upstream") in January 2013, the AngioScore acquisition in 2014, and the Stellarex Acquisition in 2015. The goodwill reporting units are consistent with our reporting segments which are further discussed in Note 10 "Segment and Geographic Reporting."

The change in the carrying amount of goodwill by reporting unit for the year ended December 31, 2016 was as follows:

(in thousands)	U.S. Medical	International Medical	Total
Balance as of December 31, 2015	\$ 130,410	\$ 22,206	\$ 152,616
Impact of changes in foreign currency and other	—	(3,805)	(3,805)
Balance as of December 31, 2016	\$ 130,410	\$ 18,401	\$ 148,811

Goodwill is allocated to the Company's operating segments based on an analysis of both the relative historical and expected benefits. Goodwill denominated in foreign currencies within International Medical is remeasured in U.S. dollars at the applicable period-end exchange rate.

In 2016, management performed its annual qualitative goodwill impairment analysis and determined that the two-step impairment analysis was not necessary. As of the measurement date, a positive determination was made that it was more likely than not that the fair value of goodwill was greater than the carrying value. Therefore, the \$148.8 million of goodwill on the consolidated balance sheets as of December 31, 2016.

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Intangible Assets. Acquired intangible assets as of December 31, 2016 and 2015 consisted of the following:

(in thousands)	December 31, 2016	December 31, 2015
Acquired as part of AngioScore acquisition (Note 2):		
Technology	\$ 73,510	\$ 73,510
Customer relationships	23,320	23,320
Trademark and trade names	4,380	4,380
In-process research and development	1,254	1,254
Distributor relationships	1,940	1,940
Non-compete agreements	580	580
Acquired as part of Stellarex Acquisition (Note 2):		
In-process research and development	13,680	13,680
Technology	9,000	9,000
Trademark and trade names	400	400
Transition services agreement	530	530
Acquired as part of Upstream acquisition		
Technology	2,172	2,172
Non-compete agreement	200	200
Patents	530	530
Less: accumulated amortization	(33,267)	(21,040)
	<u>\$ 98,229</u>	<u>\$ 110,456</u>

See further discussion of the additional goodwill and intangible assets acquired as part of the Stellarex Acquisition in Note 2 "Business Combinations."

The Company evaluates intangible assets for impairment and whenever events or circumstances indicate the carrying amount of the asset may not be recoverable. Indefinite-lived intangible assets are evaluated at least annually.

During 2016, there were no indicators of impairment of intangible assets and no impairment charge was recorded for the year ended December 31, 2016. In August 2016, the Company received Conformité Européene (CE) mark approval of AngioSculptX. AngioSculptX was valued at its estimated fair value at the acquisition date and classified as IPR&D, which is accounted for as an indefinite-lived intangible asset until completion or abandonment of the project. IPR&D is not amortized until completion of the project. Upon receiving CE mark approval, which allows for commercialization of the product in Europe, the project was considered complete, and the Company capitalized the IPR&D as a finite-lived intangible asset that will be amortized over its estimated ten-year useful life.

During 2015, in conjunction with the reductions of the contingent consideration liability related to the AngioScore acquisition (see Note 2), the Company also evaluated the intangible assets acquired for impairment. During 2015, the Company determined that a portion of the IPR&D intangible asset was impaired. The Company therefore recorded an impairment of the IPR&D intangible asset of \$2.5 million, which is included in the U.S. Medical reporting segment. For the intangible assets other than IPR&D, the Company determined that the estimated

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undiscounted cash flows of the intangible assets exceeded their carrying amounts. Therefore, no impairment of these other intangible assets was required.

During 2014, the Company recorded intangible asset impairment charges of approximately \$4.1 million related to the intangible assets acquired as part of the Upstream acquisition, as a result of market factors associated with the access and overall retrograde interventional market and other relevant factors.

Aggregate amortization expense for amortizing intangible assets was \$12.2 million, \$13.3 million and \$6.3 million for the years ended December 31, 2016, 2015 and 2014, respectively. As of December 31, 2016, estimated future amortization expense for intangible assets subject to amortization was as follows:

(in thousands)	Amortization Expense
Years ending December 31:	
2017	\$ 11,587
2018	11,322
2019	11,322
2020	10,957
2021	10,592
Thereafter	28,770
	<u>\$ 84,550</u>

NOTE 6 — ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

(in thousands)	December 31,	
	2016	2015
Accrued payroll and employee-related expenses	\$ 22,890	\$ 15,797
Contingent consideration, current portion	279	5,154
Accrued clinical study expense	2,723	3,868
Deferred rent	1,443	1,485
Accrued sales, income and excise taxes	1,208	1,318
Accrued royalties	1,313	1,044
Accrued interest	1,016	913
Accrued legal costs	847	713
Other accrued expenses	4,350	5,143
Total accrued liabilities	36,069	35,435
Less: long-term portion	(1,688)	(1,759)
Accrued liabilities, current portion	<u>\$ 34,381</u>	<u>\$ 33,676</u>

NOTE 7 — STOCK-BASED COMPENSATION AND EMPLOYEE BENEFIT PLANS

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At December 31, 2016 and 2015, the Company had two stock-based compensation plans and a 401(k) plan. These plans are described below.

(a) Equity Plan

The Company maintains equity plans that provide for the grant of options, stock appreciation rights, restricted stock awards, restricted stock units ("RSUs"), PSUs, dividend equivalents, cash incentive awards and other stock-based awards. The plans provide that stock options may be granted with exercise prices not less than the fair market value at the date of grant. Options granted through December 31, 2016 generally vest over four years and expire ten years from the date of grant. Restricted stock awards granted to non-employee members of the Board of Directors vest over one year. RSUs granted to certain employees of the Company vest over four years. Each RSU and PSU represents the right to receive one share of the Company's common stock upon the occurrence of certain specified events.

On March 15, 2016, the Company's Board of Directors adopted, and stockholders approved at the Company's annual meeting of stockholders in June 2016, The Spectranetics Corporation 2016 Incentive Award Plan (the "2016 Plan"), which authorizes the issuance for award grants of 2,500,000 shares of the Company's common stock, plus the number of shares of common stock remaining available for future grants under the Company's Amended and Restated 2006 Incentive Award Plan (the "2006 Plan") on the date the Company's stockholders approved the 2016 Plan. No further awards will be made under the 2006 Plan.

The Compensation Committee of the Board of Directors approved a grant of PSUs to certain of the Company's officers in June 2014 and a grant of PSUs to the Company's Chief Financial Officer in September 2015 upon the commencement of her employment (the "2014 PSUs"). The 2014 PSUs vest based on achieving specified performance measurements over a three-year "cliff" performance period plus an additional one year "cliff" time vesting. Earned 2014 PSUs vest 75% upon completion of the three-year performance period and 25% one year after the performance period. The 2014 PSUs have payout opportunities of between 0% and 250%. The performance targets include a compounded annual growth rate for revenue over a three-year period and Adjusted EBITDA. The three-year performance period ended as of December 31, 2016. In January 2017, the Compensation Committee determined that the 2014 PSUs have an actual payout percentage of 95% based on the Company's level of achievement of the performance measures.

In June 2016, the Board of Directors approved the grant of PSUs (the "2016 PSUs") to the Company's named executive officers and certain other employees pursuant to the 2016 Plan. The 2016 PSUs provide, among other things, that (i) the 2016 PSUs have an initial performance period of up to four years from the date of grant during which the target number of 2016 PSUs awarded to each recipient may be earned if approval of the Company's Stellarex products is received from the FDA; (ii) the 2016 PSUs have a supplemental performance period of six calendar quarters following the calendar quarter in which FDA approval of the Company's Stellarex products is received, and during which up to an additional 100% of the target number of 2016 PSUs may be earned depending on the degree to which the Company's Stellarex products achieve specified U.S. market share goals; and (iii) no 2016 PSUs will be earned (and no supplemental performance period will occur) if the Company's Stellarex products do not receive FDA approval during the initial four year performance period. As of December 31, 2016, the Company had not received FDA approval of the Stellarex products.

At December 31, 2016, there were 3.2 million shares available for future issuance under the Company's incentive award plans, assuming issuance of common stock underlying all outstanding PSUs at target performance, and 1.4 million shares available, assuming issuance of common stock underlying all outstanding PSUs at maximum performance.

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Valuation and Expense Information

The Company recognized stock-based compensation expense of \$14.0 million, \$10.1 million and \$8.3 million for the years ended December 31, 2016, 2015 and 2014, respectively, which consisted of compensation expense related to (1) employee stock options based on the grant date fair value of the options that are ultimately expected to vest during the period, (2) restricted stock awards issued to certain of the Company's directors, (3) restricted stock units and PSUs issued to certain of the Company's officers and other employees, and (4) the fair value of shares issued under the Company's employee stock purchase plan. Stock-based compensation expense is recognized based on awards ultimately expected to vest and is reduced for estimated forfeitures. The Company recognizes compensation expense for non-performance awards on a straight-line basis over the service period. An income tax benefit of \$0.3 million, \$2.4 million, and \$3.0 million related to the exercise of stock options during the years ended December 31, 2016, 2015 and 2014, respectively, will be added to other paid-in capital if and when the tax benefit is realized. With the adoption of ASU 2016-09 in the first quarter of 2017, going forward unrealized income tax benefits will be recorded as a net operating loss deferred tax asset with a corresponding valuation allowance.

With respect to the PSUs, the number of shares that vest and are issued to the recipient is based upon the Company's performance as measured against the specified targets over a specified time period as determined by the Compensation Committee of the Board of Directors. The Company estimates the fair value of the PSUs based on its closing stock price at the time of grant and its estimates of achieving performance targets and records compensation expense on a graded vesting attribution method, which recognizes compensation cost on a straight-line basis over each separately vesting portion of the award. Over the performance period, the number of shares of common stock that will ultimately vest and be issued and the related compensation expense is adjusted based upon the Company's estimate of achieving such performance targets. The number of shares delivered to recipients and the related compensation cost recognized as an expense will be based on the actual performance metrics as set forth in the applicable PSU award agreement. In the fourth quarter of 2015, the Company revised its estimate related to the achievement of the PSU performance targets, the cumulative effect of which resulted in an approximate \$1.7 million reversal of amounts previously recorded.

The fair value of each share option award is estimated on the date of grant using the Black-Scholes pricing model based on assumptions noted in the following table. The Company's employee stock options have various restrictions including vesting provisions and restrictions on transfers and hedging, among others, and are often exercised prior to their contractual expiration. Expected volatilities used in the fair value estimate are based on the historical volatility of the Company's common stock. The Company uses historical data to estimate share option exercises, expected term and employee post-vesting termination behavior used in the Black-Scholes pricing model. The risk-free rate for periods within the contractual term of the share option is based on the U.S. Treasury yield in effect at the time of grant.

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The following is a summary of the assumptions used for the stock options granted during the years ended December 31, 2016, 2015 and 2014 using the Black-Scholes pricing model:

	Year Ended December 31,		
	2016	2015	2014
Expected life (years)	5.8	5.7	5.8
Risk-free interest rate	1.23%	1.57%	1.65%
Expected volatility	46.30%	42.74%	61.44%
Expected dividend yield	—	—	—

The weighted average grant date fair value of options granted during the years ended December 31, 2016, 2015 and 2014 was \$6.94, \$10.32 and \$13.59, respectively.

The following table summarizes stock option activity during the year ended December 31, 2016:

	Shares	Weighted Average Exercise Price	Weighted Avg. Remaining Contractual Term (In Years)	Aggregate Intrinsic Value
Options outstanding at January 1, 2016	2,566,088	\$ 14.04		
Granted	1,015,100	15.67		
Exercised	(290,384)	10.84		
Forfeited	(231,099)	17.13		
Options outstanding at December 31, 2016	3,059,705	\$ 14.65	6.43	\$ 30,902,131
Options exercisable at December 31, 2016	1,836,448	\$ 12.49	4.91	\$ 22,393,987

The aggregate intrinsic value in the preceding table represents the total pre-tax intrinsic value based on the Company's closing stock price of \$24.50 on December 31, 2016 that would have been received by the option holders had all option holders exercised their options as of that date. The total number of shares underlying in-the-money options exercisable as of December 31, 2016 was approximately 1.7 million. The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$2.9 million, \$8.3 million and \$14.8 million, respectively.

The following table summarizes restricted stock award activity during the year ended December 31, 2016:

	Shares	Weighted Average Grant Date Fair Value
Restricted stock awards outstanding at January 1, 2016	26,463	\$ 27.41
Awarded	48,643	18.71
Vested	(26,463)	27.41
Awards outstanding at December 31, 2016	48,643	\$ 18.71

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The following table summarizes RSU activity during the year ended December 31, 2016:

	Shares	Weighted Average Grant Date Fair Value
Restricted stock units outstanding at January 1, 2016	204,893	\$ 24.08
Awarded	190,776	14.98
Vested/Released	(64,759)	23.12
Forfeited	(68,145)	18.73
Restricted stock units outstanding at December 31, 2016	262,765	\$ 19.10

The following table summarizes PSU activity during the year ended December 31, 2016:

	Shares	Weighted Average Grant Date Fair Value
Performance stock units outstanding at January 1, 2016	496,656	\$ 22.82
Awarded (at target performance)	275,330	18.16
Vested/Released	(59,799)	23.43
Forfeited	(49,866)	22.70
Performance stock units outstanding at December 31, 2016	662,321	\$ 20.83

As of December 31, 2016, there was \$18.0 million of total unrecognized compensation expense related to share-based compensation arrangements granted under the Company's incentive award plans, using the Company's current estimate of performance for the PSUs, which could be higher or lower in the future based on the actual achievement of performance targets. This expense is based on an assumed future forfeiture rate of approximately 6.63% per year for stock options and RSUs for Company employees and is expected to be recognized over a weighted-average period of approximately 2.4 years.

(b) Employee Stock Purchase Plan

In December 2015, the Company's Board of Directors adopted, and stockholders approved at the Company's annual meeting of stockholders in June 2016, an amendment to The Spectranetics Corporation 2010 Employee Stock Purchase Plan (as amended, the "ESPP") to increase the number of shares of common stock available for sale under the ESPP by 1,000,000 shares to a total of 1,700,000 shares. The amendment was effective as of January 1, 2016, the first day of the 2016 semi-annual offering period under the ESPP.

The ESPP provides for the sale of up to 1,700,000 shares of common stock to eligible employees, limited to the lesser of 2,500 shares per employee per six-month period or a fair market value of \$25,000 per employee per calendar year. Stock purchased under the ESPP is restricted from sale for one year following the date of purchase. Stock can be purchased from amounts accumulated through payroll deductions during each six-month period. The purchase price is equal to 85% of the lower of the fair market value of the Company's common stock at the beginning or end of the respective six-month offering period. This discount does not exceed the maximum discount rate permitted for plans of this type under Section 423 of the Internal Revenue Code of 1986, as amended. The ESPP is compensatory for financial reporting purposes. At December 31, 2016, there were approximately 0.8 million shares available for future issuance under the ESPP.

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The fair value of the shares offered within the semi-annual purchase periods under the ESPP is determined on the date of grant using the Black-Scholes option-pricing model. The expected term of six months is based upon the offering period of the ESPP. Expected volatility is determined based on the historical volatility from daily share price observations for the Company's stock covering a period commensurate with the expected term of the ESPP. The risk-free interest rate is based on the six-month U.S. Treasury daily yield rate. The expected dividend yield is based on the Company's historical practice of electing not to pay dividends to its stockholders. For the years ended December 31, 2016, 2015 and 2014, the Company recognized \$1.2 million, \$0.9 million and \$0.8 million of compensation expense, respectively, related to the ESPP.

(c) 401(k) Plan

The Company maintains a salary reduction savings plan under Section 401(k) of the Internal Revenue Code ("401(k) Plan") that the Company administers for participating employees' contributions. All full-time employees are covered under the 401(k) Plan after meeting minimum service requirements. The Company accrued and paid matching contributions of \$2.0 million, \$1.8 million, and \$1.3 million to the 401(k) Plan for the years ended December 31, 2016, 2015 and 2014, respectively. For all years presented, Company contributions were based on a match of 50% of each employee's contribution, with the match-eligible contribution being limited to 6% of the employee's eligible compensation.

NOTE 8 — NET LOSS PER SHARE

Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding (excluding shares of restricted stock). Shares issued during the period and shares reacquired during the period are weighted for the portion of the period they were outstanding. Diluted net loss per share is computed in a manner consistent with that of basic net loss per share, while giving effect to all potentially dilutive common shares outstanding during the period, which include the assumed exercise of stock options and the assumed vesting of restricted stock using the treasury stock method, and the assumed conversion of shares under the Notes using the "if-converted" method.

Options to purchase common stock, the vesting of restricted stock and PSUs, and shares issuable upon conversion of the Notes are considered to be potentially dilutive common shares but have been excluded from the calculation of diluted net loss per share as their effect is anti-dilutive for the years ended December 31, 2016, 2015 and 2014 as a result of the net losses incurred for those years. Therefore, diluted net loss per share was the same as basic net loss per share for the years ended December 31, 2016, 2015 and 2014. Stock options, restricted stock, PSUs, and shares issuable upon the conversion of the Notes outstanding at December 31, 2016, 2015 and 2014, which are excluded from the computation of diluted net loss per share for those years, are shown in the table below:

	December 31,		
	2016	2015	2014
Options to purchase common stock	3,059,705	2,566,088	2,698,911
Non-vested restricted stock	311,408	231,356	208,818
Non-vested performance stock units	662,321	496,656	487,158
Shares issuable upon conversion of the Notes	7,337,459	7,337,459	7,337,459
Potentially dilutive common shares	11,370,893	10,631,559	10,732,346

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A summary of the net loss per share calculation is shown below for the years indicated:

	2016	2015	2014
Net loss (in thousands)	\$ (58,120)	\$ (59,474)	\$ (40,901)
Common shares outstanding:			
Historical common shares outstanding at beginning of year (excluding shares of unvested restricted stock)	42,632,771	42,034,063	41,208,096
Weighted average common shares issued	302,671	396,158	471,273
Weighted average common shares outstanding-basic	42,935,442	42,430,221	41,679,369
Effect of dilution from stock options	—	—	—
Weighted average common shares outstanding-diluted	42,935,442	42,430,221	41,679,369
Net loss per share, basic and diluted	\$ (1.35)	\$ (1.40)	\$ (0.98)

NOTE 9 — CONCENTRATIONS OF CREDIT RISK

The Company's investment policy is designed to limit the Company's exposure to concentrations of credit risk.

The Company's accounts receivable are due from a variety of health care organizations and distributors throughout the United States, Europe, the Middle East, Latin America and Asia. No single customer represented more than 10% of revenue or accounts receivable for any year presented in our consolidated financial statements. The Company provides for uncollectible amounts upon recognition of revenue and when specific credit problems arise. Historically, management's estimates for uncollectible amounts have been adequate, and management believes that all significant credit risks have been identified at December 31, 2016. The Company has not entered into any hedging transactions nor any transactions involving financial derivatives.

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NOTE 10 — SEGMENT AND GEOGRAPHIC REPORTING

The Company operates in one distinct line of business consisting of developing, manufacturing, marketing, and distributing disposable products and a proprietary excimer laser system to treat certain vascular and coronary conditions.

Within this line of business, the Company has identified two operating segments, which were identified on a geographic basis: (1) U.S. Medical and (2) International Medical. U.S. Medical and International Medical offer substantially the same products and services but operate in different geographic regions, have different distribution networks, and different regulatory environments. The primary performance measure for the operating segments is revenue.

Additional information regarding each operating segment is discussed below.

(a) U.S. Medical

Products offered by this segment include medical devices used in minimally invasive procedures within the cardiovascular system, including fiber-optic devices and non-fiber-optic products (disposables), an excimer laser system (equipment), and the service of the excimer laser system (service). The Company is subject to product approvals from the FDA and Health Canada. The Company's products are used in multiple vascular procedures, including peripheral atherectomy, crossing arterial blockages, coronary atherectomy and thrombectomy, and the removal of cardiac lead wires from patients with pacemakers and cardiac defibrillators. This segment's customers are primarily located in the United States and Canada.

U.S. Medical also includes the corporate headquarters of the Company. All manufacturing, research and development, and corporate administrative functions are performed within this operating segment. As of December 31, 2016, 2015 and 2014, a portion of research, development and other technology expenses, and general and administrative expenses incurred in the U.S. has been allocated to International Medical based on a percentage of revenue because these expenses support the Company's ability to generate revenue within the International Medical segment.

Manufacturing activities are performed within the U.S. Medical segment. Revenue associated with intersegment product transfers to International Medical was \$14.3 million, \$13.9 million and \$8.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. Revenue is based upon transfer prices, which provide for intersegment profit that is eliminated upon consolidation.

(b) International Medical

The International Medical segment has its headquarters in the Netherlands, and serves Europe, the Middle East, Asia Pacific, Latin America, and Puerto Rico. Products offered by this segment are substantially the same as those offered by U.S. Medical, except that the Stellarex and AngioSculptX DCB products are available for sale in Europe and certain other international markets but are not yet approved for sale in the U.S. The Company is subject to product approvals from various international regulatory bodies. The International Medical segment is engaged primarily in distribution activities, with no manufacturing or product development functions. Certain U.S.-incurred research, development and other technology expenses, and general and administrative expenses have been allocated to International Medical based on a percentage of revenue because these expenses support the Company's ability to generate revenue within the International Medical segment.

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Summary financial information relating to reportable segment operations is shown below. Intersegment transfers as well as intercompany assets and liabilities are excluded from the information provided:

(in thousands)	For the Year Ended December 31,		
	2016	2015	2014
Revenue:			
U.S. Medical:			
Disposable products	\$ 215,023	\$ 195,816	\$ 155,107
Laser, service, and other	10,277	10,867	12,292
Subtotal	225,300	206,683	167,399
International Medical:			
Disposable products	39,844	34,563	29,703
Laser, service, and other	5,679	4,710	7,812
Subtotal	45,523	39,273	37,515
Total revenue	\$ 270,823	\$ 245,956	\$ 204,914

	U.S. Medical	International Medical	Total
2016			
Interest income	\$ 63	\$ —	\$ 63
Interest expense	13,349	9	13,358
Depreciation and amortization expense	25,704	1,718	27,422
Income tax expense	560	227	787
Segment operating loss	(40,416)	(3,219)	(43,635)
Segment net loss	(54,333)	(3,787)	(58,120)
Capital expenditures	5,171	183	5,354
Total assets	\$ 392,776	\$ 37,302	\$ 430,078

	U.S. Medical	International Medical	Total
2015			
Interest income	\$ 25	\$ 4	\$ 29
Interest expense	7,878	1	7,879
Depreciation and amortization expense	24,910	1,678	26,588
Income tax (benefit) expense	563	163	726
Segment operating (loss) income	(49,548)	(981)	(50,529)
Segment net (loss) income	(58,095)	(1,379)	(59,474)
Capital expenditures	9,423	115	9,538
Total assets	\$ 430,956	\$ 37,043	\$ 467,999

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	U.S. Medical	International Medical	Total
2014			
Interest income	\$ 44	\$ 2	\$ 46
Interest expense	4,098	10	4,108
Depreciation and amortization expense	15,205	1,608	16,813
Income tax expense	(887)	565	(322)
Segment operating (loss) income	(39,267)	2,317	(36,950)
Segment net (loss) income	(42,628)	1,727	(40,901)
Capital expenditures	6,532	190	6,722
Total assets	\$ 423,039	\$ 34,799	\$ 457,838

In 2016, 2015 and 2014, no individual customer represented 10% or more of consolidated revenue. There were no individual countries, other than the United States, that represented at least 10% of consolidated revenue in 2016, 2015 or 2014. Long-lived assets, other than financial instruments and deferred tax assets, located in foreign countries are concentrated in Europe, and totaled \$23.0 million and \$27.1 million as of December 31, 2016 and 2015, respectively.

Revenue by Product Line

	For the Year Ended December 31,		
(in thousands)	2016	2015	2014
Revenue			
Disposable products revenue:			
Vascular intervention	\$ 181,602	\$ 160,480	\$ 118,148
Lead management	73,265	69,899	66,662
Total disposable products	254,867	230,379	184,810
Laser, service, and other	15,956	15,577	20,104
Total revenue	\$ 270,823	\$ 245,956	\$ 204,914

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NOTE 11 — DEBT

The following table summarizes our total gross outstanding debt as of December 31, 2016 and December 31, 2015 and the significant terms of our borrowing arrangements:

	Year Ended December 31,		Maturity Date	Weighted Average Interest Rate
(amounts in thousands)	2016	2015		
Convertible Senior Notes	\$ 230,000	\$ 230,000	June 1, 2034	2.625%
Term Loan Facility	60,000	60,000	December 7, 2020	(1)
Revolving Loan Facility	24,712	24,232	December 7, 2020	(1)
	314,712	314,232		
Less debt issuance cost	(5,241)	(6,323)		
Total	\$ 309,471	\$ 307,909		

(1) The interest rates on the Term Loan Facility and Revolving Loan Facility are described below.

Convertible Senior Notes

In June 2014, the Company sold \$230 million aggregate principal amount of 2.625% Convertible Senior Notes due 2034. Interest is paid semi-annually in arrears on December 1 and June 1 of each year. The Notes will mature on June 1, 2034, unless earlier converted, redeemed, or repurchased in accordance with the terms of the Notes. The initial conversion rate of the Notes is 31.9020 shares of the Company's common stock per \$1,000 principal amount of Notes (which is equivalent to an initial conversion price of approximately \$31.35 per share). The conversion rate is subject to adjustment upon the occurrence of certain events specified in the indenture governing the Notes. Holders may surrender their Notes for conversion at any time prior to the close of business on the second scheduled trading day immediately preceding the stated maturity date. On or after June 5, 2018 and prior to June 5, 2021, the Company may redeem any or all of the Notes in cash if the closing price of the Company's common stock exceeds 130% of the conversion price then in effect for a specified number of days, and on or after June 5, 2021, the Company may redeem the Notes in cash without any such condition. The redemption price for the Notes to be redeemed as described in the immediately preceding sentence equals 100% of the principal amount of the Notes being redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

Holders of the Notes may require the Company to repurchase all or a portion of their Notes on each of June 5, 2021, June 5, 2024 and June 5, 2029, or following a fundamental change (as defined in the indenture governing the Notes), in each case, at a repurchase price in cash equal to 100% of the principal amount of the Notes being repurchased plus accrued and unpaid interest to, but excluding, the date of repurchase.

The Notes are subject to customary events of default, which may result in the acceleration of the maturity of the Notes.

The Notes are the Company's senior unsecured obligations and rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the Notes, rank equally in right of payment with any of the Company's unsecured indebtedness that is not so subordinated, are effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness and are structurally subordinated to all indebtedness and other liabilities of the Company's subsidiaries.

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The Company received \$222.5 million from the issuance of the Notes, net of \$7.5 million of debt issuance costs incurred. The debt issuance costs are being amortized over a seven-year period using the effective interest method. The Company used all of the net proceeds to fund the acquisition of AngioScore (see Note 2, "Business Combinations").

Term Loan Facility and Revolving Loan Facility

On December 7, 2015, the Company entered into a term credit and security agreement (the "Term Loan Credit Agreement") and a revolving credit and security agreement (the "Revolving Loan Credit Agreement", and together with the Term Loan Credit Agreement, the "Credit Agreements") with MidCap Financial Trust and the other lenders party thereto. The Credit Agreements replace the Credit and Security Agreement (the "Wells Fargo Credit Agreement") entered into by the Company and Wells Fargo Bank, National Association on February 25, 2011. The Term Loan Credit Agreement provides for a five-year \$60 million Term Loan Facility and the Revolving Loan Credit Agreement provides for a five-year \$50 million Revolving Loan Facility. The Revolving Loan Facility may be increased to up to \$70 million, subject to approval. The obligations of the Company under the Credit Agreements are secured by a lien on substantially all of the assets of the Company.

The Term Loan Facility bears interest at the LIBOR Rate (as defined in the Term Loan Credit Agreement) plus an applicable margin of 7.50% per annum; provided that the applicable margin will be reduced to 6.50% if the Company's EBITDA (as defined in the Term Loan Credit Agreement) is equal to or greater than \$6 million for a specified prior period and no default or event of default has occurred and is occurring. The Company may prepay all or a portion of the Term Loan Facility, subject to certain conditions and a prepayment fee, as specified in the Credit Agreements. The Term Loan Facility is subject to an exit fee of 4.0% of the amount advanced under the Term Loan Facility. Interest-only payments are due during the first 24 months of the Term Loan Facility, with principal payments beginning thereafter in equal monthly installments until maturity, provided that the Company may postpone making principal payments for an additional 12 months if certain conditions are met and the Administrative Agent and lenders agree to such extension. If the Administrative Agent and lenders do not agree to such extension, the prepayment fee and unearned portion of the exit fee will be waived.

The Company may borrow under the Revolving Loan Facility subject to borrowing base limitations, which allow the Company to borrow based on the value of eligible accounts receivable and inventory balances. As of December 31, 2016, the borrowing base was \$36.6 million, based on the Company's accounts receivable and inventory balances. Amounts drawn under the Revolving Loan Facility bear interest at the LIBOR Rate (as defined in the Revolving Loan Credit Agreement) plus 4.45% per annum, while the undrawn portion is subject to an unused line fee of 0.5% per annum. The Revolving Loan Facility is subject to a minimum balance, such that the Company pays the greater of (i) interest accrued on the actual amount drawn under the Revolving Loan Facility and (ii) interest accrued on 35% of the average borrowing base prior to the first anniversary of the Revolving Loan Facility and 50% of the average borrowing base thereafter. The Company may prepay and re-borrow amounts borrowed under the revolving line of credit without penalty.

The Credit Agreements require us to maintain minimum cash and cash equivalents of not less than \$10 million and achieve net revenue in excess of certain specified thresholds. These agreements also contain certain restrictive covenants that limit and in some circumstances prohibit our ability to, among other things incur additional debt, sell, lease or transfer our assets, pay dividends on our common stock, make capital expenditures and investments, guarantee debt or obligations, create liens, repurchase our common stock, enter into transactions with our affiliates and enter into certain merger, consolidation or other reorganization transactions.

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The Credit Agreements contains customary events of default, including the failure to make required payments, the failure to comply with certain covenants or other agreements, the occurrence of a material adverse change, failure to pay certain other indebtedness and certain events of bankruptcy or insolvency. Upon the occurrence and continuation of an event of default, amounts due under the Credit Agreements may be accelerated.

At closing, the Company received \$60.0 million under the Term Loan Facility and drew \$18.0 million under the Revolving Loan Facility for general working capital and corporate purposes, as well as for the repayment of approximately \$3.0 million outstanding under the Wells Fargo Credit Agreement. During 2015, the Company recorded a write-off of \$0.2 million in unamortized debt issuance costs related to the extinguishment of the Wells Fargo line of credit and incurred \$0.7 million in debt issuance costs related to the Term Loan Facility and Revolving Loan Facility.

As of December 31, 2016, the Term Loan Facility and Revolving Loan Facility had outstanding balances of \$60.0 million and \$24.7 million, respectively. The interest rate on the Term Loan Facility was 8.12% at December 31, 2016, and the monthly weighted average interest rate on the Revolving Loan Facility was 5.07% at December 31, 2016.

NOTE 12 — INCOME TAXES

The sources of (loss) income before income taxes are as follows:

(in thousands)	2016	2015	2014
United States	\$ (53,972)	\$ (58,252)	\$ (43,217)
Foreign (primarily the Netherlands)	(3,361)	(496)	1,994
(Loss) income before income taxes	<u>\$ (57,333)</u>	<u>\$ (58,748)</u>	<u>\$ (41,223)</u>

Income tax expense (benefit) attributable to (loss) income before income taxes consists of the following:

(in thousands)	2016	2015	2014
Current:			
Federal	\$ —	\$ —	\$ —
State	109	126	72
Foreign	177	114	515
	<u>286</u>	<u>240</u>	<u>587</u>
Deferred:			
Federal	439	400	(874)
State	12	36	(85)
Foreign	50	50	50
	<u>501</u>	<u>486</u>	<u>(909)</u>
Income tax (benefit) expense	<u>\$ 787</u>	<u>\$ 726</u>	<u>\$ (322)</u>

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Income tax (benefit) expense attributable to loss before income taxes differed from the amounts computed by applying the U.S. federal income tax rate of 35% for the year ended December 31, 2016 and 34% for the years ended December 31, 2015 and 2014 to loss before income taxes as a result of the following:

(in thousands)	2016	2015	2014
Computed expected tax (benefit) expense	\$ (20,067)	\$ (19,974)	\$ (14,016)
Increase (reduction) in income tax (benefit) expense resulting from:			
State and local income taxes, net of federal impact	(1,358)	(2,270)	(1,211)
Stock-based compensation	1,291	1,028	46
Nondeductible expenses	284	517	2,652
Change in valuation allowance	18,501	31,037	13,540
Change in contingent consideration liability	69	(7,870)	—
Release of valuation allowance related to AngioScore acquisition	—	—	(1,266)
Change in deferred rate	(1,450)	(75)	193
Other	833	—	—
Foreign operations	401	616	179
Research and development credit	2,283	(2,283)	(439)
Income tax (benefit) expense	<u>\$ 787</u>	<u>\$ 726</u>	<u>\$ (322)</u>

Included in the \$0.3 million income tax benefit for the year ended December 31, 2014 is a \$1.3 million tax benefit from the release of valuation allowance of the Company's deferred tax assets ("DTAs"). In connection with the acquisition of AngioScore during the year ended December 31, 2014, deferred tax liabilities ("DTLs") were established for the book-tax basis differences related to the non-goodwill intangible assets. These DTLs exceeded the acquired DTAs by \$1.3 million. The net DTLs from this acquisition create an additional source of taxable income to realize a portion of the Company's DTAs for which a valuation allowance is no longer needed. The impact on the Company's DTAs and DTLs caused by the acquisition is recorded outside of acquisition accounting. Accordingly, the valuation allowance on a portion of the Company's DTAs was released and resulted in an income tax benefit of \$1.3 million.

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The tax effects of temporary differences that give rise to significant portions of the deferred tax assets (liabilities) at December 31, 2016 and 2015 are as follows:

(in thousands)	2016	2015
Deferred tax assets:		
Net operating loss carryforwards—U.S. and related states	\$ 87,116	\$ 74,886
Net operating loss carryforwards—foreign	1,289	286
Charitable contribution carryover	204	219
Capital loss carryover	—	131
Amortization of intangibles	1,295	1,146
Stock compensation expense related to nonqualified stock options	6,275	3,914
Research and experimentation tax credit	4,480	7,383
Alternative minimum tax credit	298	298
Accrued liabilities	2,144	2,110
Inventories	3,283	2,680
Deferred revenue	540	512
	106,924	93,565
Less valuation allowance	(79,291)	(60,790)
Deferred tax assets, net	<u>\$ 27,633</u>	<u>\$ 32,775</u>
Deferred tax liabilities:		
Equipment	\$ (325)	\$ (2,152)
Long-lived intangible assets	(29,674)	(32,538)
Total deferred tax liabilities	<u>\$ (29,999)</u>	<u>\$ (34,690)</u>

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An income tax benefit of \$0.3 million, \$2.4 million and \$3.0 million related to the exercise of stock options for the years ended December 31, 2016, 2015 and 2014, respectively, will be added to other paid-in capital if and when the tax benefit is realized. With the adoption of ASU 2016-09 in the first quarter of 2017, going forward unrealized income tax benefits will be recorded as a net operating loss DTA with a corresponding valuation allowance.

As of December 31, 2016, the Company has unrestricted U.S. federal net operating loss carryforwards of approximately \$249.7 million and state net operating loss carryforwards of \$189.4 million to reduce future taxable income, which expire primarily from 2019 through 2036.

An alternative minimum tax credit carryforward of approximately \$0.3 million is available to offset future regular tax liabilities and has no expiration date. For alternative minimum tax purposes, the Company has unrestricted net operating loss carryforwards for U.S. federal income tax purposes of approximately \$247.3 million.

The Company also has research and experimentation tax credit carryforwards for federal income tax purposes and state income tax purposes at December 31, 2016 of approximately \$3.4 million and \$1.1 million, respectively, which are available to reduce future federal and state income taxes, if any, and expire at varying dates through 2034.

The Company intends to indefinitely reinvest earnings from subsidiaries treated as foreign corporations for U.S. tax purposes. As of December 31, 2016 and 2015, the Company had a cumulative undistributed deficit related to its foreign subsidiaries of approximately \$23.9 million and \$20.5 million, respectively.

In assessing the realizability of deferred tax assets, management considers whether it is more-likely-than-not that some portion or all of the deferred tax assets will not be realized. The Company's ability to realize the benefit of its deferred tax assets in future periods will depend on the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the projected future taxable income and tax planning strategies in making this assessment. Due to the Company's history of losses and its planned near-term investments in its growth, the Company continues to record a valuation allowance against substantially all of its deferred tax assets that are in excess of its deferred tax liabilities. The Company will continue to assess the need for a valuation allowance in future periods and does not expect to reduce the valuation allowance against its deferred tax assets until it has a sufficient historical trend of taxable income and can predict future income with a higher degree of certainty. In the event there is a change in circumstances in the future which would affect the utilization of the Company's deferred tax assets, the tax provision in that period would be adjusted by the amount of the assets then deemed to be realizable.

As of December 31, 2016, the Company classified approximately \$0.1 million of its tax credit carryforwards as uncertain. This amount is reported as a reduction of the Company's deferred tax asset. The Company classifies interest and penalties expense related to income tax liabilities as an income tax expense. There are no significant interest and penalties recognized in the consolidated statements of operations and comprehensive loss or on the consolidated balance sheet.

The Company files tax returns in the U.S., Puerto Rico, Canada, and in each of the European countries in which the Company has subsidiaries. The tax years 2012 through 2016 remain open to examination by the major taxing jurisdictions to which the Company is subject. The IRS completed a corporate income tax audit during 2012 for the Company's 2009 and 2010 tax years. No adjustments were made as a result of the audit.

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NOTE 13 — COMMITMENTS AND CONTINGENCIES

Litigation

The Company is from time to time subject to, and is presently involved in, various pending or threatened legal actions and proceedings, including those that arise in the ordinary course of its business. Such matters are subject to many uncertainties and to outcomes the financial impacts of which are not predictable with assurance and that may not be known for extended periods of time. The Company records a liability in its consolidated financial statements for costs related to claims, settlements, and judgments where management has assessed that a loss is probable and an amount can be reasonably estimated. Otherwise, the Company expenses these costs as incurred. Under U.S. GAAP, an event is “reasonably possible” if “the chance of the future event or events occurring is more than remote but less than likely” and an event is “remote” if “the chance of the future event or events occurring is slight”. If the estimate of a probable loss is a range and no amount within the range is more likely than any other amount, then the Company accrues the minimum amount of the range. Unless included in the Company’s legal accrual or otherwise indicated below, a range of loss associated with any individual material legal proceeding cannot be reasonably estimated.

The Company’s significant legal proceedings are discussed below. The costs associated with such proceedings or other legal proceedings that may be commenced could have a material adverse effect on the Company’s business, results of operations, financial position, or liquidity.

TriReme Patent Infringement and Breach of Fiduciary Duty

In July 2012, AngioScore sued TriReme Medical, Inc. (“TriReme”), Eitan Konstantino (“Konstantino”), Quattro Vascular Pte, Ltd. (“Quattro”), and QT Vascular Ltd. (“QT Vascular”), in the U.S. District Court for the Northern District of California (the “District Court”), alleging patent infringement. In June 2014, AngioScore amended its complaint to allege state law claims (i) that Konstantino, a former founder, officer, and director of AngioScore, breached his fiduciary duties to AngioScore by developing the Chocolate balloon catheter while serving as a director of AngioScore, and (ii) against the other defendants for aiding and abetting that breach. In July 2015, the District Court ruled in favor of AngioScore, finding that Konstantino breached his fiduciary duties to AngioScore, that TriReme and Quattro aided and abetted that breach, and that QT Vascular was liable for the acts of TriReme and Quattro. The District Court awarded AngioScore \$20.034 million against all defendants plus disgorgement from Konstantino of all benefits he accrued from his breach of fiduciary duties. In September 2015, a jury found against AngioScore in the patent infringement case.

Following an appeal by the defendants, in July 2016, the United States Court of Appeals for the Federal Circuit (the “Federal Circuit”) reversed the state law rulings on procedural grounds, finding that the District Court lacked jurisdiction to hear the state law claims, and affirmed the District Court’s ruling that the defendants were not entitled to attorneys’ fees in the patent infringement case. In August 2016, AngioScore filed a petition for rehearing of the order reversing the District Court’s breach of fiduciary duty rulings, which the Federal Circuit denied. The Federal Circuit remanded the matter to the District Court for dismissal of the state law claims, which the District Court did in February 2017.

TriReme Inventorship

In June 2014, TriReme sued AngioScore in the District Court seeking to change the inventorship of certain patents owned by AngioScore. TriReme alleged that an Israeli physician, Chaim Lotan, should be named as a co-

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inventor on three patents owned by AngioScore. Dr. Lotan allegedly assigned any rights he may have had in the three patents to TriReme. In March 2015, the District Court granted AngioScore's motion to dismiss this case. TriReme appealed the District Court's ruling, and in February 2016, an appellate court reversed the District Court's ruling dismissing the case and remanded the case for further proceedings. In January 2017, AngioScore filed a motion for summary judgment, requesting the District Court to dismiss the case.

Konstantino Indemnification and Advancement of Fees

In May 2014, Konstantino sued AngioScore in the Delaware Court of Chancery seeking a ruling that AngioScore must indemnify and advance Konstantino's attorneys' fees and costs related to the defense of the breach of fiduciary duty claims and his pursuit in Delaware court for advancement of fees. In June 2014, AngioScore filed counter-claims against Konstantino for violating the AngioScore indemnification agreement and filed a third-party complaint against TriReme, Quattro, and QT Vascular seeking contribution from the defendant companies for amounts advanced to Konstantino. The court held in August 2014 that AngioScore was required to advance the former director's attorneys' fees and costs. AngioScore filed a motion for summary judgment, and in November 2015, the court granted in part AngioScore's motion and ordered that TriReme is liable for 50% of advanced fees and costs, and must pay all fees and costs to be advanced to Konstantino moving forward until such fees and costs equal the fees and costs paid by AngioScore, and thereafter, the fees and costs must be advanced 50% by TriReme and 50% by AngioScore.

The Company cannot at this time determine the likelihood of any outcome and, as of December 31, 2016 and 2015, had no amounts accrued for potential damages. During the years ended December 31, 2016 and 2015, the Company incurred \$1.8 million and \$19.9 million, respectively, of legal fees associated with these matters, including amounts advanced for certain of Konstantino's attorneys' fees and costs in 2015. These expenses are included within the "Acquisition transaction, integration and legal costs" line of the consolidated statements of operations and comprehensive loss.

Shareholder Litigation

In August 2015, a person purporting to represent a class of persons who purchased securities of the Company between February 19, 2015 and July 23, 2015 filed a lawsuit against the Company and certain of its officers in the United States District Court for the District of Colorado. The lawsuit asserts claims under Sections 10(b) and 20 of the Securities Exchange Act of 1934, alleging that certain of the Company's public statements concerning its projected revenue for 2015 were false and misleading. In March 2016, plaintiffs filed an amended complaint, including additional allegations challenging certain statements in addition to those concerning the Company's projected revenue for 2015. The class period in the amended complaint runs from February 27, 2014 to July 23, 2015. The Company believes that the lawsuit is without merit and is defending itself vigorously. In June 2016, the Company filed a motion to dismiss the amended complaint. Although the Company believes it is reasonably possible for a loss to occur, the Company cannot estimate an amount of loss or a range of loss, if any or whether the impact will be material and, as of December 31, 2016, had no amounts accrued for potential damages in this case.

Other

The Company is involved in other legal proceedings in the normal course of business and does not expect them to have a material adverse effect on its business.

Warning Letter

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)**

In May 2016, the Company received a warning letter from the FDA related to observed non-conformities with current Good Manufacturing Practice ("GMP"), as defined by the FDA, at our Colorado Springs, Colorado facility. In January 2016, following an inspection of certain of the Company's manufacturing facilities from late 2015 to early 2016, the FDA issued the Company a Form 483 notice, identifying certain observed non-conformities with current GMP. Following the receipt of the Form 483, the Company provided written responses to the FDA detailing corrective actions underway to address the FDA's observations. The FDA warning letter acknowledges the actions already taken by the Company to address the observations. The Company plans to continue to respond timely and fully to the FDA's requests and the Company is working diligently to fully remediate the FDA's observations regarding the Colorado Springs facility. Incremental expenses in connection with the matter for the year ended December 31, 2016 were approximately \$3.0 million. We anticipate that we will incur incremental expenses ranging from approximately \$10 million to approximately \$15 million in 2017 in connection with remediating the warning letter. The Company is continuing to manufacture and ship disposable products from the Colorado Springs facility and currently does not anticipate that customer orders will be impacted while the Company works to resolve the FDA's concerns. Until the violations are corrected, the Company may be subject to additional regulatory action by the FDA and foreign regulatory agencies, including recalls, delays, suspension or withdrawal of approvals or clearances, and fines or civil penalties.

Voluntary Recall

In late October 2016, the Company initiated a voluntary recall of specific lots produced since April 2016 of its ELCA Coronary Laser Atherectomy Catheter, Turbo Elite Laser Atherectomy Catheter, and Bridge Occlusion Balloon products. The recall was due to potentially compromised integrity of sterile packaging of the products caused by pinholes in the outer package, which we purchase from a third party and do not manufacture ourselves. The decision to initiate the recall was not based on any reported adverse events or customer complaints. The FDA was informed of this action and agreed to the Company's recall plan to replace units impacted. The FDA classified the recalls as Class II. The Company also made required communications to various regulatory bodies outside of the United States. The recall has been substantially completed and the costs of the recall to date have not been material and the remaining anticipated costs are not expected to be material to the Company's financial results.

Leases

The Company leases office space, furniture, vehicles and equipment under noncancelable operating leases with terms that expire at various dates through 2023.

The future minimum payments under noncancelable operating leases as of December 31, 2016 were as follows:

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**
Notes to Consolidated Financial Statements (Continued)

(in thousands)	Operating Leases
Years ending December 31:	
2017	\$ 3,472
2018	3,454
2019	3,151
2020	3,116
2021	2,472
Thereafter	4,877
	<u>\$ 20,542</u>

Rent expense under operating leases totaled approximately \$4.1 million, \$3.5 million, and \$2.7 million for the years ended December 31, 2016, 2015, and 2014, respectively.

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**
Notes to Consolidated Financial Statements (Continued)

NOTE 14 — SUBSEQUENT EVENTS

On January 13, 2017, the Compensation Committee of the Board of Directors of the Company approved the grant of PSU awards (the “2017 PSUs”) to the Company’s named executive officers and certain other employees pursuant to the Company’s 2016 Incentive Award Plan.

The award agreement for the 2017 PSUs (the “2017 PSU Grant Form”) provides, among other things, that (i) each 2017 PSU that vests represents the right to receive one share of the Company’s common stock; (ii) the 2017 PSUs vest based on the Company’s achieving specified performance measurements over a performance period of three years, beginning January 1, 2017; (iii) the performance measurements include revenue and EBITDA, each as defined in the 2017 PSU Grant Form; (iv) threshold, target and maximum payout opportunities established for the 2017 PSUs will be used to calculate the number of shares that will be issuable when the award vests, which may range from 0% to 200% of the target amount; (v) any 2017 PSUs that are earned are scheduled to vest and be settled in shares of the Company’s common stock at the end of the performance period; (vi) all or a portion of the 2017 PSUs may vest following a change of control, a termination of service without cause or for good reason or a termination of service by reason of death or disability (each as described in greater detail in the 2017 PSU Grant Form); and (vii) except as provided above, any unvested 2017 PSUs will be forfeited upon a recipient’s termination of employment with the Company.

NOTE 15 — SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	2016				2015			
	Q1	Q2	Q3	Q4	Q1(1)	Q2(1)(2)	Q3(1)(3)	Q4(1)(4)(5)
(In thousands, except per share amounts)								
Net sales	\$ 62,884	\$ 67,748	\$ 68,265	\$ 71,926	\$ 57,422	\$ 61,677	\$ 61,660	\$ 65,197
Gross profit	46,802	50,765	51,381	53,549	42,369	45,763	45,851	48,839
Net loss	(17,291)	(14,906)	(13,312)	(12,611)	(27,305)	(7,216)	(14,493)	(10,460)
Net loss per share (6):								
Basic and diluted	\$ (0.40)	\$ (0.35)	\$ (0.31)	\$ (0.29)	\$ (0.65)	\$ (0.17)	\$ (0.34)	\$ (0.25)

- (1) During the first, second, third and fourth quarters of 2015, the Company incurred \$10.4 million, \$11.1 million, \$5.4 million and \$2.4 million, respectively, in transaction, integration and legal costs related to the acquisitions of AngioScore and Stellarex. See Note 2, “Business Combinations.”
- (2) During the second quarter of 2015, the Company reduced its contingent consideration liability by \$17.8 million as a result of a decrease in future revenue estimates for the AngioSculpt products. See Note 2, “Business Combinations.”
- (3) During the third quarter of 2015, the Company recorded an intangible asset impairment of \$2.5 million as a partial impairment of the IPR&D intangible assets acquired as part of the AngioScore acquisition. The Company also reduced the contingent consideration liability related to regulatory milestone payments by \$4.3 million. See Note 2, “Business Combinations.”

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES
Notes to Consolidated Financial Statements (Continued)**

- (4) During the fourth quarter of 2015, the Company reduced its contingent consideration liability by \$3.7 million as a result of a decrease in future revenue estimates for the AngioSculpt products.
- (5) In the fourth quarter of 2015, the Company revised its estimate related to the achievement of the PSU performance targets, the cumulative effect of which resulted in an approximate \$1.7 million reversal of amounts previously recorded.
- (6) The sum of the quarterly net income per share amounts may not total to each full year amount because these computations are made independently for each quarter and for the full year, and take into account the weighted average number of common stock equivalent shares outstanding for each period.

**THE SPECTRANETICS CORPORATION
AND SUBSIDIARIES**

SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS

Description	Balance at Beginning of Year	Additions		Deductions (2)	Balance at End of Year
		Charged (Credited) to Revenue, Costs or Expenses	Charged (Credited) to Other Accounts - describe (1)		
(In thousands)					
Year ended December 31, 2016:					
Allowance for doubtful accounts and sales returns	\$ 1,906	\$ 2,319	\$ —	\$ 2,596	\$ 1,629
Inventory reserves	3,871	1,051	—	1,294	3,628
Valuation allowance for deferred tax assets	60,790	18,501	—	—	79,291
Year ended December 31, 2015:					
Allowance for doubtful accounts and sales returns	\$ 1,615	\$ 2,074	\$ —	\$ 1,783	\$ 1,906
Inventory reserves	2,419	2,867	—	1,415	3,871
Valuation allowance for deferred tax assets	29,815	30,975	—	—	60,790
Year ended December 31, 2014:					
Allowance for doubtful accounts and sales returns	\$ 782	\$ 2,271	\$ —	\$ 1,438	\$ 1,615
Inventory reserves	918	426	1,267	192	2,419
Valuation allowance for deferred tax assets	11,794	13,540	5,747	1,266	29,815

- (1) During 2014, as part of purchase accounting at the AngioScore acquisition date, inventory reserves were established for potentially expired or obsolete AngioScore inventory, and a valuation allowance was established against a portion of AngioScore deferred tax assets related to net operating losses.
- (2) Deductions represent receivables written-off and credits granted for customer returns, inventory write-offs, and reductions in the valuation allowance for deferred tax assets due primarily to the use or expiration of net operating losses.

EXHIBIT INDEX

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated May 27, 2014, by and among the Company, SAA Merger Sub, Inc., AngioScore Inc. and Shareholder Representative Services LLC. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on May 27, 2014.
3.1	Amended and Restated Certificate of Incorporation. Incorporated by reference to exhibits previously filed by the Company with its Current Report on Form 8-K filed on June 16, 2009.
3.2	Certificate of Amendment of Amended and Restated Certificate of Incorporation. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 12, 2014.
3.3	Amended and Restated Bylaws of The Spectranetics Corporation. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on April 4, 2011.
4.1	Form of Common Stock Certificate of the Company. Incorporated by reference to exhibits previously filed by the Company with its Amendment No. 2 to the Registration Statement, filed January 24, 1992 (File No. 33-44367).
4.2	Form of Indenture by and between The Spectranetics Corporation and Wells Fargo Bank, National Association relating to debt securities. Incorporated by reference to exhibit previously filed by the Company with its Registration Statement on Form S-3 filed on March 11, 2013.
4.3	Indenture, dated as of June 3, 2014, by and between the Company and Wells Fargo Bank, National Association. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 3, 2014.
4.4	First Supplemental Indenture, dated as of June 3, 2014, by and between the Company and Wells Fargo Bank, National Association (including the Form of Global Note). Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 3, 2014.
10.1#	The 1997 Equity Participation Plan of The Spectranetics Corporation. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.2#	Form of Non-Qualified Stock Option Agreement for Officers. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.3#	Form of Non-Qualified Stock Option Agreement for Employees. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.4#	Form of Non-Qualified Stock Option Agreement for Independent Directors. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.5#	Form of Incentive Stock Option Agreement for Officers. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.6#	Form of Incentive Stock Option Agreement for Employees. Incorporated by reference to exhibits previously filed by the Company with its Registration Statement on Form S-8 filed June 17, 1998 (File No. 333-57015).
10.8	License Agreement between United States Surgical Corporation and the Company, dated September 25, 1997 (confidential treatment has been granted for portions of this agreement). Incorporated by reference to exhibits previously filed by the Company with its Form 10-Q for the quarter ended on September 30, 1997.

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Exhibit Number	Description
10.9#	First Amendment to the 1997 Equity Participation Plan. Incorporated by reference to exhibit previously filed by the Company with its 2000 Annual Report on Form 10-K filed on March 30, 2001.
10.10#	Second Amendment to the 1997 Equity Participation Plan. Incorporated by reference to exhibit previously filed by the Company with its Registration Statement on Form S-8 filed on November 22, 2000.
10.11#	Third Amendment to the 1997 Equity Participation Plan. Incorporated by reference to exhibit previously filed by the Company with its 2001 Annual Report on Form 10-K filed on March 30, 2002.
10.13#	Fourth Amendment to the 1997 Equity Participation Plan. Incorporated by reference to exhibits previously filed by the Company with its Quarterly Report on Form 10-Q for the quarter ended June 30, 2002.
10.14#	Fifth Amendment to the 1997 Equity Participation Plan. Incorporated by reference to exhibits previously filed by the Company with its Quarterly Report on Form 10-Q for the quarter ended June 30, 2002.
10.16	Settlement and Amendment to License Agreement executed in February 2005 and effective October 1, 2004 between the Company and SurModics, Inc. (confidential treatment has been granted for portions of this agreement). Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q for the quarter ended March 31, 2005.
10.17	Agreement of Lease by and between 9965 Federal Drive, LLC and The Spectranetics Corporation dated December 29, 2006. Incorporated by reference to exhibit previously filed by the Company with its 2006 Annual Report on Form 10-K filed on March 29, 2007.
10.18	Patent Purchase Agreement dated February 20, 2007 between The Spectranetics Corporation and Joseph M. Ruggio. Incorporated by reference to exhibit previously filed by the Company with its 2006 Annual Report on Form 10-K filed on March 29, 2007.
10.24	Asset Purchase Agreement dated as of May 12, 2008 by and among Kensey Nash Corporation, ILT Acquisition Sub, Inc., Kensey Nash Holding Corporation and The Spectranetics Corporation. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on May 13, 2008.
10.30#	Form of Performance Vesting Stock Option Agreement for Employees. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K for the year ended December 31, 2008 filed on March 16, 2009.
10.31#	Form of Conditional Performance Vesting Stock Option Agreement for Employees. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K for the year ended December 31, 2008 filed on March 16, 2009.
10.32#	Form of Restricted Stock Award Agreement for Non-Employee Directors. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q for the quarter ended March 31, 2009 filed on May 11, 2009.
10.33	Development and Regulatory Services Agreement dated as of May 30, 2008 between Kensey Nash Corporation and The Spectranetics Corporation (confidential treatment has been requested for portions of this exhibit). Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 5, 2008.
10.34	Development and Regulatory Services Agreement Amendment dated as of June 22, 2009, between Kensey Nash Corporation and The Spectranetics Corporation (confidential treatment has been requested for portions of this exhibit). Incorporated by reference to exhibits previously filed by the Company with Quarterly Report on Form 10-Q for the quarter ended June 30, 2009 filed on August 10, 2009.

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Exhibit Number	Description
10.35	Non-Prosecution Agreement dated December 28, 2009 by and among The Spectranetics Corporation and the United States Attorney's Office for the District of Colorado and the United States Department of Justice's Office of Consumer Litigation. Incorporated by reference to exhibits previously filed by the Company with its Current Report on Form 8-K filed on December 29, 2009.
10.36	Settlement Agreement dated December 22, 2009 by and among The Spectranetics Corporation and the United States of America, acting through the United States Department of Justice and the United States Attorney's Office for the District of Colorado, on behalf of the Office of Inspector General of the Department of Health and Human Services. Incorporated by reference to exhibits previously filed by the Company with its Current Report on Form 8-K filed on December 29, 2009.
10.37	Corporate Integrity Agreement dated December 22, 2009 between the Office of Inspector General of the Department of Health and Human Services and The Spectranetics Corporation. Incorporated by reference to exhibits previously filed by the Company with its Current Report on Form 8-K filed on December 29, 2009.
10.38	License Agreement dated December 30, 2009 between The Spectranetics Corporation and Peter Rentrop, M.D. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on December 31, 2009.
10.40#	Letter Agreement between Shahriar Matin and The Spectranetics Corporation, dated April 12, 2010. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on April 14, 2010.
10.41	The Spectranetics Corporation 2010 Employee Stock Purchase Plan. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 29, 2010.
10.43#	Form of Restricted Stock Unit Agreement. Incorporated by reference to exhibits previously filed by the Company with Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 filed on August 6, 2010.
10.49	Credit and Security Agreement between The Spectranetics Corporation and Wells Fargo Bank, National Association dated February 25, 2011, together with the Revolving Note and exhibits. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on March 3, 2011.
10.53	First Amendment to The Spectranetics Corporation 2010 Employee Stock Purchase Plan. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on March 14, 2011.
10.57#	Employment Agreement between Scott Drake and The Spectranetics Corporation dated July 8, 2011 and effective as of August 10, 2011, which includes Exhibit A—Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement and Exhibit B—Stock Option Grant Notice and Stock Option Agreement. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on July 12, 2011.
10.58#	Form of Restricted Stock Unit Agreement. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 5, 2011.
10.59#	Form of Restricted Stock Award Agreement - Initial Grant. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 5, 2011.
10.60#	Form of Restricted Stock Award Agreement - Annual Grant. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 5, 2011.
10.61	Amendment No. 1 to Patent Purchase Agreement dated June 27, 2011 between The Spectranetics Corporation and Joseph M. Ruggio, M.D. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 5, 2011.

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Exhibit Number	Description
10.65#	Indemnification Agreement dated March 13, 2012 between The Spectranetics Corporation and the Directors and certain officers of the Company. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on March 15, 2012.
10.66	Termination, Settlement Agreement and Mutual Release dated March 14, 2012 between The Spectranetics Corporation and Kensey Nash Corporation. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on March 15, 2012.
10.68	First Amendment to The Spectranetics Corporation 2010 Employee Stock Purchase Plan. Incorporated by reference to Appendix C previously filed by the Company with its Definitive Proxy Statement filed on April 17, 2012.
10.69	Agreement of Lease by and between COPT Interquest Hybrid I, LLC and The Spectranetics Corporation, executed October 2, 2012. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on October 5, 2012.
10.70	Second Amendment to Agreement of Lease by and between 9965 Federal Drive, LLC and The Spectranetics Corporation, executed October 2, 2012. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on October 5, 2012.
10.71	Asset Purchase Agreement, dated January 7, 2012, among the Company, Upstream Peripheral Technologies Ltd., and ARAN Research Development & Prototypes Ltd. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on January 7, 2013.
10.72	First Amendment to Agreement of Lease by and between COPT Interquest Hybrid I, LLC and The Spectranetics Corporation, executed October 23, 2013. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on October 31, 2013.
10.73	Third Amendment to Agreement of Lease by and between 9965 Federal Drive, LLC and The Spectranetics Corporation, executed October 23, 2013. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on October 31, 2013.
10.74	First Amendment to Credit and Security Agreement between The Spectranetics Corporation and Wells Fargo Bank, National Association dated February 21, 2014. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 28, 2014.
10.75	Second Amendment to Credit and Security Agreement, dated May 27, 2014, by and between the Company and Wells Fargo Bank, National Association. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on May 27, 2014.
10.76#	The Spectranetics Corporation Amended and Restated 2006 Incentive Award Plan, as amended and restated as of June 10, 2014. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 12, 2014.
10.77	Agreement of Lease, dated June 8, 2010, by and between Brandin Court Associates, LLC and AngioScore Inc. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 11, 2014.
10.78	Agreement of Extension of Lease Term, dated May 17, 2013, by and between Brandin Court Associates, LLC and AngioScore Inc. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on August 11, 2014.
10.79#	Form of Performance Stock Unit Grant. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on October 6, 2014.
10.80#	Severance Agreement, dated January 6, 2015, by and between the Company and Scott Drake. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.

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Exhibit Number	Description
10.81#	Form of Severance Agreement, dated January 6, 2015, by and between the Company and each of Guy A. Childs and Shahriar Matin. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.
10.82#	Form of Severance Agreement for Certain Officers of the Company. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.
10.83	Asset Purchase Agreement, dated October 31, 2014, by and between the Company and Covidien LP. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.
10.84	Product Supply Agreement, dated January 27, 2015, by and between the Company and Covidien LP. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.
10.85	Transition Services Agreement, dated January 27, 2015, by and between the Company and Covidien LP. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 27, 2015.
10.86	Third Amendment to Credit and Security Agreement, dated June 26, 2015, by and between the Company and Wells Fargo Bank, National Association. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 29, 2015.
10.87	Agreement of Lease, dated March 31, 2015, by and between the Company and Pewaukee Maple Grove, LLC. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on July 30, 2015.
10.88#	Offer Letter dated as of August 21, 2015, by and among the Company and Stacy P. McMahan. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on October 29, 2015.
10.89	Agreement of Extension of Lease Term, dated October 28, 2015, by and between the Company and Brandin Court Associates, LLC. Incorporated by reference to exhibit previously filed by the Company with its Annual Report on Form 10-K filed on February 26, 2016.
10.90	Credit and Security Agreement (Term Loan), dated as of December 7, 2015, by and among the Company and AngioScore Inc., as borrowers, MidCap Financial Trust, as administrative agent and a lender, and the other lenders party thereto. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on December 7, 2015.
10.91	Credit and Security Agreement (Revolving Loan), dated as of December 7, 2015, by and among the Company and AngioScore Inc., as borrowers, MidCap Financial Trust, as administrative agent and a lender, and the other lenders party thereto. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on December 7, 2015.
10.92#	The Spectranetics Corporation 2016 Incentive Award Plan. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 15, 2016.
10.93#	The Spectranetics Corporation 2010 Employee Stock Purchase Plan, as amended as of December 9, 2015. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on June 15, 2016.
10.94#	Form of Performance Stock Unit Grant Notice. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on July 29, 2016.
10.95#	Form of Restricted Stock Award Agreement under the 2016 Incentive Award Plan. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on July 29, 2016.
10.96#	Form of Stock Option Notice and Stock Option Agreement under the 2016 Incentive Award Plan. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on July 29, 2016.

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Exhibit Number	Description
10.97#	Form of Restricted Stock Unit Grant Notice and Restricted Stock Unit Agreement under the 2016 Incentive Award Plan. Incorporated by reference to exhibit previously filed by the Company with its Quarterly Report on Form 10-Q filed on July 29, 2016.
10.98#	Form of Performance Stock Unit Grant Notice. Incorporated by reference to exhibit previously filed by the Company with its Current Report on Form 8-K filed on January 20, 2017.
10.99*	Amendment No. 1 to Revolving Credit and Security Agreement, dated as of December 2, 2016, by and among the Company and AngioScore Inc., as borrowers, MidCap Funding IV Trust, as administrative agent and a lender, and the other lenders party thereto.
10.100#*	Offer Letter dated as of December 24, 2016, by and among the Company and Scott Hutton.
12.1*	Statement of Computation of Ratio of Earnings to Fixed Charges.
21.1*	Subsidiaries of the Company.
23.1*	Consent of Independent Registered Public Accounting Firm (KPMG LLP).
31.1*	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer.
31.2*	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer.
32.1**	Section 1350 Certification of Chief Executive Officer.
32.2**	Section 1350 Certification of Chief Financial Officer.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith

** Furnished herewith

Indicates a management contract or compensatory plan or arrangement.