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

(Mark One)

x **Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
for the fiscal year ended December 31, 2018

or

o **Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.**

MERIT MEDICAL SYSTEMS, INC.
(Exact name of registrant as specified in its charter)

Utah	**0-18592**	**87-0447695**
(State or other jurisdiction of incorporation or organization)	(Commission File No.)	(IRS Employer Identification No.)

1600 West Merit Parkway, South Jordan, Utah 84095
(Address of principal executive offices, including zip code)

Registrant's telephone number, including area code: **(801) 253-1600**

Securities registered pursuant to Section 12(b) of the Act: **Common Stock, No Par Value,** registered on the NASDAQ Global Select Market

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

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

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 o 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 o No ☒

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No o

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

Large Accelerated Filer ☒	Accelerated Filer o	Non-Accelerated Filer o (Do not check if a smaller reporting company)	Smaller Reporting Company o	Emerging Growth Company o

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

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

The aggregate market value of the registrant's common stock held by non-affiliates of the registrant on June 29, 2018, which is the last business day of the registrant's most recently completed second fiscal quarter (based upon the closing sale price of $51.20 of the registrant's common stock on the NASDAQ National Market System on June 29, 2018), was approximately $2.5 billion. Shares of common stock held by each officer and director of the registrant and by each person who may be deemed to be an affiliate have been excluded.

As of February 26, 2019, the registrant had 54,902,835 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following document are incorporated by reference in Part III of this Report: the registrant's definitive proxy statement relating to the Annual Meeting of Shareholders scheduled for May 23, 2019.

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PART I

Unless otherwise indicated in this report, "Merit," "we," "us," "our," and similar terms refer to Merit Medical Systems, Inc. and our consolidated subsidiaries.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This report includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). All statements in this report, other than statements of historical fact, are "forward-looking statements" for purposes of these provisions, including any projections of earnings, revenues or other financial items, any statements of the plans and objectives of our management for future operations, any statements concerning proposed new products or services, any statements regarding the integration, development or commercialization of the business or any assets acquired from other parties, any statements regarding future economic conditions or performance, and any statements of assumptions underlying any of the foregoing. All forward-looking statements included in this report are made as of the date hereof and are based on information available to us as of such date. We assume no obligation to update any forward-looking statement. In some cases, forward-looking statements can be identified by the use of terminology such as "may," "will," "expects," "plans," "anticipates," "intends," "seeks," "believes," "estimates," "potential," "forecasts," "continue," or other forms of these words or similar words or expressions, or the negative thereof or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, there can be no assurance that such expectations or any of the forward-looking statements will prove to be correct, and actual results will likely differ, and could differ materially, from those projected or assumed in the forward-looking statements. Prospective investors are cautioned not to unduly rely on any such forward-looking statements.

Our future financial condition and results of operations, as well as any forward-looking statements, are subject to inherent risks and uncertainties, including the following:

- risks relating to managing growth, particularly if accomplished through acquisitions, and the integration of acquired businesses;
- risks relating to protecting our intellectual property;
- claims by third parties that we infringe their intellectual property rights, which could cause us to incur significant legal or licensing expenses and prevent us from selling our products;
- greater scrutiny and regulation by governmental authorities, including risks relating to the subpoena we received in October 2016 from the U.S. Department of Justice seeking information on our marketing and promotional practices;
- risks relating to physicians' use of our products in unapproved circumstances;
- FDA regulatory clearance processes and any failure to obtain and maintain required regulatory clearances and approvals;
- international regulatory clearance processes and any failure to obtain and maintain required regulatory clearances and approvals;
- disruption of our security of information technology systems to operate our business, our critical information systems or a breach in the security of our systems;
- the effect of evolving U.S. and international laws and regulations regarding privacy and data protection;
- uncertainties about when, how or if the United Kingdom will withdraw from the European Union;
- risks relating to significant adverse changes in, or our failure to comply, with governing regulations;
- restrictions and limitations in our debt agreements and instruments, which could affect our ability to operate our business and our liquidity;
- uncertainties relating to the LIBOR calculation and potential phasing out of LIBOR after 2021;

- expending significant resources for research, development, testing and regulatory approval or clearance of our products under development and any failure to develop the products, any failure of the products to be effective or any failure to obtain approvals for commercial use;
- violations of laws targeting fraud and abuse in the healthcare industry;
- risks relating to healthcare legislation negatively affecting our financial results, business, operations or financial condition;
- loss of key personnel;
- termination or interruption of, or a failure to monitor, our supply relationships or increases in the price of our component parts, finished products, third-party services or raw materials, particularly petroleum-based products;
- product liability claims;
- failure to report adverse medical events to the FDA or other governmental authorities, which may subject us to sanctions that may materially harm our business;
- failure to maintain or establish sales capabilities on our own or through third parties, which may result in our inability to commercialize any of our products in countries where we lack direct sales and marketing capabilities;
- employees, independent contractors, consultants, manufacturers and distributors engaging in misconduct or other improper activities, including noncompliance;
- the addressable market for our product groups being smaller than our estimates;
- consolidation in the healthcare industry, group purchasing organizations or public procurement policies leading to demands for price concessions;
- our inability to compete in markets, particularly if there is a significant change in relevant practices or technology;
- fluctuations in foreign currency exchange rates negatively impacting our financial results;
- inability to accurately forecast customer demand for our products or manage our inventory;
- International and national economic and industry conditions constantly changing;
- changes in general economic conditions, geopolitical conditions, U.S. trade policies and other factors beyond our control;
- failure to comply with export control laws, customs laws, sanctions laws and other laws governing our operations in the U.S. and other countries, which could subject us to civil or criminal penalties, other remedial measures and legal expenses;
- inability to generate sufficient cash flow to fund our debt obligations, capital expenditures, and ongoing operations;
- risks relating to our revenues being derived from a few products and medical procedures;
- risks relating to work stoppage, transportation interruptions, severe weather and natural disasters;
- fluctuations in our effective tax rate adversely affecting our business, financial condition or results of operation;
- limits on reimbursement imposed by governmental and other programs;
- failure to comply with applicable environmental laws and regulations;
- volatility of the market price of our common stock and potential dilution from future equity offerings; and

- other factors referenced in our press releases and in our reports filed with the Securities and Exchange Commission (the "SEC").

All subsequent forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. Our actual results will likely differ, and may differ materially, from anticipated results. Financial estimates are subject to change and are not intended to be relied upon as predictions of future operating results, and we assume no obligation to update or disclose revisions to those estimates. If we do update or correct one or more forward-looking statements, investors and others should not conclude that we will make additional updates or corrections. Additional factors that may have a direct bearing on our operating results are described under Item 1A "Risk Factors" beginning on page 22.

DISCLOSURE REGARDING TRADEMARKS

This report includes trademarks, tradenames and service marks that are our property or the property of other third parties. Solely for convenience, such trademarks and tradenames sometimes appear without any "™" or "®" symbol. However, failure to include such symbols is not intended to suggest, in any way, that we will not assert our rights or the rights of any applicable licensor, to these trademarks and tradenames.

Item 1. Business.

Our Company

Merit Medical Systems, Inc. is a leading manufacturer and marketer of proprietary disposable medical devices used in interventional, diagnostic and therapeutic procedures, particularly in cardiology, radiology, oncology, critical care and endoscopy. We strive to be the most customer-focused company in healthcare. Each day we are determined to make a difference by understanding our customers' needs and innovating and delivering a diverse range of products that improve the lives of people and communities throughout the world. We believe that long-term value is created for our customers, employees, shareholders, and communities when we focus outward and are determined to deliver an exceptional customer experience.

Merit Medical Systems, Inc. was founded in 1987 by Fred P. Lampropoulos, Kent W. Stanger, Darla Gill and William Padilla. Initially we focused our operations on injection and insert molding of plastics. Our first product was a specialized control syringe used to inject contrast solution into a patient's arteries for a diagnostic cardiac procedure called an angiogram. Since that time, our sales and product lines have expanded substantially, both through internal research and development projects and through strategic acquisitions.

Business Strategy

Our business strategy focuses on five target areas as follows:

- enhancing global growth and profitability through research and development, sales model optimization, cost discipline and operational focus;
- optimizing our operational capability through lean processes, cost effective environments and asset utilization;
- targeting high-growth, high-return opportunities by understanding, innovating and delivering in our core product groups;
- maintaining a highly disciplined, customer-focused enterprise guided by strong core values to globally address unmet or underserved healthcare needs, and
- creating sustainability of our business for our employees, shareholders and community.

We conduct our operations through a number of domestic and foreign subsidiaries. Our principal offices are located at 1600 West Merit Parkway, South Jordan, Utah, 84095, and our telephone number is (801) 253-1600. See Item 2. "Properties." We maintain an Internet website at www.merit.com.

Products

We design, develop, market and manufacture, through our own operations and contract manufacturers, medical products that offer a high level of quality, value and safety to our customers, as well as the patients they serve. Our products are used in the following clinical areas: diagnostic and interventional cardiology; interventional radiology; neurointerventional radiology; vascular, general and thoracic surgery; electrophysiology; cardiac rhythm management; interventional pulmonology; interventional nephrology; orthopaedic spine surgery; interventional oncology; pain management; outpatient access centers; intensive care; computed tomography; ultrasound; and interventional gastroenterology. During the years ended December 31, 2018, 2017 and 2016, net sales generated by our top ten selling products accounted for approximately 33%, 37% and 39%, respectively of our total net sales. Sales of our inflation devices (including our Big60® device sold within our endoscopy segment and kits and packs which include inflation devices, but also include other products) accounted for approximately 10.8%, 11.4% and 12.7% of our net sales for the years ended December 31, 2018, 2017 and 2016, respectively.

The success of our products is enhanced by the extensive experience of our management team in the healthcare industry, our experienced direct sales force and distributors, our ability to provide custom procedural solutions such as kits, trays and procedural packs at the request of our customers and our dedication to offering facility-unique solutions in the markets we serve worldwide.

Our products are offered for sale in six core product groups: peripheral intervention, cardiac intervention, cardiovascular and critical care, interventional oncology and spine, breast cancer localization and guidance, and endoscopy. A number of our products are marketed within multiple product groups; accordingly, we do not maintain separate measures of profitability by product group. Based on industry data and our internal market information, we estimate that the addressable market opportunities (in terms of annual net sales), that we are targeting with our current or newly released product portfolios, for each of our core product groups are as follows:

- Peripheral Intervention: $3.1 billion (global)
- Cardiac Intervention: $1.8 billion (global)
- Cardiovascular and Critical Care: $5.5 billion (global)
- Interventional Oncology and Spine: $1.4 billion (global)
- Breast Cancer Localization and Guidance: $1 billion (global)
- Endoscopy: $484 million (U.S. domestic)

We currently conduct our business through two financial reporting segments: cardiovascular (which includes our peripheral intervention, cardiac intervention, interventional oncology and spine, cardiovascular and critical care, and breast cancer localization and guidance product groups) and endoscopy. For information relating to our business segments, see Note 13 to our consolidated financial statements set forth in Item 8 of this report.

Peripheral Intervention

Our peripheral intervention products support the minimally invasive diagnosis and treatment of diseases in peripheral vessels and organs throughout the body, excluding the heart. Our peripheral intervention product line is organized into product portfolios as follows: Access, Angiography, Intervention, Drainage, Biopsy and Solutions. The main products we offer under these portfolios are identified below.

We offer a broad line of medical devices used to gain and maintain vascular access. These products include our micropuncture kits, angiographic needles, our family of Prelude® sheath introducers and a wide range of guide wires and safety products. Additionally, we offer hemodialysis and peritoneal dialysis catheters and grafts which provide dialysis access options across a continuum of disease states. Our principal dialysis and graft offerings include:

- our HeRO® (Hemodialysis Reliable Outflow) Graft, a fully subcutaneous vascular access system, which is intended for use in maintaining long-term vascular access for chronic hemodialysis patients,
- our CentrosFLO® Long-Term Hemodialysis Catheter and ProGuide® Chronic Dialysis Catheter,
- our peritoneal dialysis catheters, accessories and implantation kits, and
- our Surfacer® Inside-Out® Access Catheter System, an innovative approach to restore access and to preserve treatment options for hemodialysis patients with occluded veins. The Surfacer Inside-Out is sold through our distribution agreement with BlueGrass Vascular Technologies.

Our angiography products are used to identify blockages and other disease states in the blood vessel. Our angiography products include:

- our extensive line of Merit Laureate® Hydrophilic Guide Wires, a smooth-surface guide wire designed to minimize friction and promote rapid catheter exchanges,
- our InQwire® Diagnostic Guide Wires and InQwire® Amplatz guide wires, and
- our Performa® and Impress® Diagnostic Catheters, designed for traversing difficult to access peripheral blood vessels.

Our intervention products are chiefly used to remove blood clots, retrieve foreign bodies in blood vessels and assist with placing balloons and stents to treat arterial disease.

On May 18, 2018, we entered into a distribution agreement with QXMédical, LLC ("QXMédical") for the exclusive global distribution rights to the Q50® PLUS Stent Graft Balloon Catheter. The Q50 PLUS is used in abdominal and thoracic endovascular aneurysm repair procedures to repair abdominal aortic aneurysms and thoracic aortic aneurysms.

On December 14, 2018 we acquired the intellectual property rights, inventory and certain other assets of Vascular Insights, LLC ("Vascular Insights"). The primary assets are the ClariVein® IC and ClariVein OC specialty infusion and occlusion catheter systems utilized in more than 120,000 cases to treat superficial venous disease, particularly below the knee and in venous leg ulcers. In addition to our Q50 PLUS, ClariVein IC and ClariVein OC specialty infusion and occlusion catheter systems, our intervention offerings include:

- our Advocate™ Percutaneous Transluminal Angioplasty ("PTA") Catheter and Dynamis AV™ PTA Dilatation Catheter, used to correct failing or thrombosed dialysis fistulae,
- our Fountain® Infusion System and Mistique® Infusion Catheters, used to treat arterial and hemodialysis graft occlusions and deep vein thrombosis,
- our low profile and standard ASAP® Aspiration Catheters, a safe and efficient catheter used to remove fresh, soft emboli and thrombi from vessels,
- our extensive line of EN Snare® and One Snare® Endovascular Snare Systems, snares designed to manipulate, capture and retrieve foreign material in the body,
- our line of inflations devices, including our basixTOUCH™ Inflation Device, BasixCompak™ Inflation Device and Blue Diamond™ Digital Inflation Device, designed to accurately measure pressures during balloon and stent deployment. and
- our new high-pressure basixTOUCH40™ Inflation Device, introduced in 2018, which features a quick-release handle with a 40-atmosphere pressure capacity.

Our drainage products are used to drain fluids from body cavities to relieve pain and discomfort and lessen trauma. On February 14, 2018, we expanded our drainage product line through our acquisition of the divestment assets of Becton, Dickinson and Company ("BD") in connection with BD's recently completed acquisition of C.R. Bard, Inc. ("Bard") in which we acquired the Aspira® Pleural Effusion Drainage and Aspira® Peritoneal Drainage Systems. The Aspira system provides a compassionate home treatment option for end-stage cancer patients with malignant pleural effusion or malignant ascites, allowing patients to spend more time at home by eliminating the need for frequent hospital visits to treat their symptoms. In the same acquisition, we acquired soft tissue core needle biopsy products sold under the trade names Achieve® Programmable Automatic Biopsy System, Temno® Biopsy System and Tru-Cut® Biopsy Needles.

In addition to our Aspira® products, we offer a broad line of drainage access products. Our drainage access products include:

- our One-Step™ and Valved One-Step™ Drainage Catheters, sold individually and in kits, for emergency drainage procedures, quickly removing unwanted fluid accumulation,
- our ReSolve® Locking and Non-Locking Drainage Catheters, Resolve Biliary Catheter and related products including tubing sets and drainage bags, and
- our Revolution™ Catheter Securement Device and StayFIX® Fixation Device, used to stop migration, movement and accidental removal of a percutaneous catheter.

In addition to the soft tissue core needle biopsy products we acquired from BD, our biopsy product offerings also include:

- our innovative CorVocet® Biopsy System, introduced in 2018, for soft tissue biopsy procedures, designed to cut a full-core of tissue, providing large specimens for pathological examination, and
- our Madison™, Huntington™, Kensington™, Preston™ and Westbrook™ bone and spine biopsy products, now fully launched in the U.S.

Our solutions products conveniently package an assortment of peripheral intervention products in trays, packs and kits.

Cardiac Intervention Products

We manufacture and sell a variety of products designed to treat various heart conditions. Our cardiac intervention product group is organized under the following product portfolios: Access, Angiography, Hemostasis, Intervention, and Electrophysiology and Cardiac Rhythm Management. The main products we offer under these portfolios are identified below.

Our cardiac intervention access products used to gain access to the heart include:

- our Merit Advance® needles, arm boards with radiation scatter protection, scalpels and guide wires, and
- our family of Prelude Introducer Sheaths, for both radial and femoral access, features our new Prelude Ideal™ Hydrophilic Sheath Introducer, introduced in 2018, an ultra-thin wall introducer sheath that provides more room for the insertion of catheters and other devices in the radial artery.

Our angiography products identify blocked or narrowed coronary arteries and overlap with our peripheral intervention angiography products. Our angiography product offerings include:

- our InQwire® Guide Wires and complete line of manifolds, syringes, and stopcocks,
- our Performa® Diagnostic Catheter, known for its superior torque, high shaft strength for pushability and a large inner diameter for improved flow rates; and
- our MIV™ Radial Ventriculogram Pigtail Catheter, a catheter specifically designed for radial artery access.

Our hemostasis products assist clinicians in obtaining and maintaining hemostasis or stopping the flow of blood following arterial catheterization. Our cardiac intervention hemostasis product offerings include:

- our SafeGuard Pressure Assisted Device and Safeguard Radial Compression Device, a comfortable hemostasis device which delivers adjustable active compression and enables immediate pressure adjustment and
- our new and innovative PreludeSYNC™ Hemostasis Device and PreludeSYNC Distal, introduced in early 2019, a comfortable hemostasis device with colorful band designs.

Our cardiac intervention products for coronary catheterization procedures include:

- our new FLO40XR™ and FLO50™ Hemostasis Valves, introduced in 2018, and our full line of hemostasis valves including the MAP™ Merit Angioplasty Packs, Honor®, PhD™, AccessPLUS™, Access-9™, DoublePlay™, MBA™ and the Passage®,
- our new basixTAU™ Inflation Device, introduced in 2018, which features a fold-out handle, reducing physician fatigue by reducing the rotational force applied by physicians when performing multiple inflation procedures, along with our legacy inflation devices, including our BasixCompak™, Blue Diamond™ and BasixTouch™,
- our pericardiocentesis kits, which combines the necessary medical devices for pericardial drainage procedures,
- our Ostial PRO® Stent Positioning System, a stent alignment tool for precise stent implantation in aorto-ostial lesions,
- our ConcierGE® Guiding Catheters with a large inner lumen and soft tip used to gain access to the heart, and
- our Merit SureCross® Support Catheters, support catheters used to reach and cross tight, difficult lesions.

Cardiac rhythm management (“CRM”) is the field of cardiac disease therapy that relates to the diagnosis and treatment of cardiac arrhythmias or the improper beating of the heart. Electrophysiology is the study of diagnosing and treating abnormal electrical activities of the heart. We offer innovative solutions in the rapidly-expanding cardiac rhythm management and electrophysiology markets including:

- our Worley™ Advanced LV Delivery System, used to aid in the insertion and implantation of left ventricular pacing leads, shown to reduce lead implant failures, improve target lead location and reduce procedure times,
- our HeartSpan® Transseptal Needle, for left-heart access procedures, exceptionally responsive with transparent handle allowing direct visualization, and
- our newest generation HeartSpan® Steerable Sheath Introducer, introduced in 2018, featuring a neutral position indicator and tactile click to help physicians identify curve orientation.

Cardiovascular and Critical Care

Our cardiovascular and critical care products treat patients with life-threatening diseases, protect healthcare providers from exposure to bloodborne pathogens and provide medical devices designed for efficiency and effectiveness, improving a patient's experience, while simplifying the challenges of clinical care.

Our cardiovascular product offering includes:

- our DualCap® Disinfection Protection System, which protects and disinfects needleless valves with isopropyl alcohol, designed to reduce healthcare-associated infections in hospitals,
- our Medallion® Syringes, a medication syringe, available in assorted colors for easy medication identification,

- our Pen and Label Medication Labeling Systems, for labeling syringes, bowls and other medical containers,
- our ShortStop® Temporary Sharps Holders, to hold needles and prevent accidental needlestick injuries to hospital staff, and
- our family of BackStop® Disposable Basins, for holding contaminated fluid waste, for safe and quick waste elimination.

Blood pressure monitoring products are vital to critical care. Our extensive portfolio of monitoring devices and fluid management devices provide valuable information to physicians to assist and accelerate patient recovery, which include:

- our Meritrans DTXPLUS® Pressure Transducers, used to identify a patient's blood pressure and cardiovascular status,
- our Safedraw® Closed Arterial Blood Sampling System, for easy blood sampling, which reduces unnecessary blood discard,
- our RadialFlo™ Arterial Catheter, introduced in 2018, which controls blood flow with an integral switch and is silicone-coated for smooth insertion,
- our TRAM® Manifolds with an integral pressure transducer to measure blood pressures, and
- our Careflow® Central Venous and Arterial Catheters for high flow rate infusions.

Interventional Oncology and Spine

Our interventional oncology and spine products treat vertebral compression fractures, metastatic spinal tumors, liver cancer, uterine fibroids, benign prostatic hyperplasia, arteriovenous malformations and hemostatic embolization for certain markets outside of the U.S. Our interventional oncology and spine product line is organized into product portfolios as follows: Delivery Systems, Embolotherapy, Spine Ablation and Vertebral Compression Fracture. The main products we offer under these portfolios are identified below.

Our delivery systems portfolio includes a variety of microcatheters and guide wires for targeted access, control and selective infusion of diagnostic, embolic, or therapeutic agents into vessels. Our interventional oncology delivery systems include:

- our new Merit Pursue™ Microcatheter, introduced in 2018, a small microcatheter designed for pushability and trackability through small and tortuous vessels,
- our SwiftNINJA® Steerable Microcatheter, an advanced microcatheter with a 180-degree articulating tip, sold through our exclusive worldwide distribution agreement (excluding Japan) with Sumitomo Bakelite Co., Ltd.,
- our Merit Maestro® Microcatheter, designed for small vessels, providing reliable embolization,
- our True Form™ Reshapable Guide Wire, which can be shaped and reshaped multiple times, reducing the need for multiple guide wires, and
- our Tenor® Steerable Guide Wire, which facilitates navigation in challenging anatomy during embolic procedures.

Our embolotherapy products treat disease by blocking or slowing the flow of blood into the arteries or delivering chemotherapy drugs in the treatment of primary and metastatic liver cancer. In 2017, we received FDA approval for prostatic artery embolization ("PAE") providing a non-surgical treatment option for millions of men who suffer from BPH or benign prostatic hyperplasia. Our embolotherapy products include:

- our Embosphere® Microspheres, a highly studied, round embolic for consistent and predictable results,
- our new EmboCube™, introduced in 2018, a pre-loaded syringe filled with gelatin foam which speeds up procedure preparation,
- our Bearing nsPVA® Embolization Particles, non-spherical embolic particles,
- our QuadraSphere® Microspheres, a precisely calibrated embolic for controlled, targeted embolization, and
- our HepaSphere™ Microspheres, offered outside of the U.S., for the treatment of primary and metastatic liver cancer.

Our spine systems are used to treat painful vertebral compression fractures caused by osteoporosis or cancer by injecting a bone cement through a small hole in the skin into a fractured vertebra. Our vertebral compression fracture products include:

- our StabiliT® Vertebral Augmentation System, which treats pathological fractures by delivering bone cement with a consistent viscosity using radio-frequency energy,
- our StabiliT MX Vertebral Augmentation System, using our industry-leading inflation devices to deliver bone cement,
- our StabiliT VP Vertebroplasty System, which combines a simple cement preparation and controlled delivery of high-viscosity cement, and

- our Osseoflex® products, which are part of our unique brand of directional devices that allow users to navigate and target specific anatomy within the spine. Our Osseoflex products include access kits, steerable needles, steerable and straight balloons, as well as cement mixing and delivery systems.

Our tumor ablation portfolio is represented by the STAR™ Tumor Ablation System. The STAR system is designed to provide palliative treatment of painful metastatic spinal tumors in cancer patients by targeted radiofrequency ablation.

Cianna Medical

On November 13, 2018, we completed the acquisition of Cianna Medical, Inc. ("Cianna Medical"), a privately held company dedicated to the innovative treatment of early-stage breast cancer. Following the Cianna Medical acquisition, we began selling our SAVI® Brachytherapy Breast Radiation and our SAVI SCOUT® Radar Localization System , a wire-free breast tumor localization system, designed to produce audible and visual indicators surgeons can use to mark cancerous tissue during lumpectomy and biopsy procedures.

Endoscopy

Our endoscopy division, Merit Endotek™, markets products for gastrointestinal and pulmonary conditions. On April 6, 2018 our endoscopy product offering was expanded to include the NvisionVLE® Imaging System through a worldwide distribution agreement with NinePoint Medical, Inc. This innovative system uses an optical signal acquisition and processing method to create high-resolution cross-sectional images and mark tissue visible under white light endoscopy, designed to help clinicians evaluate 100% of the tissue allowing targeted biopsies in the esophagus.

We offer a variety of non-vascular stents to treat pulmonary and gastrointestinal disease including:

- our AERO®, AEROmini® and AERO DV® Fully Covered Tracheobronchial Stents, for the treatment of tracheobronchial strictures produced by malignant neoplasms,
- our Alimaxx-ES™ and EndoMAXX®, Fully Covered Esophageal Stents, intended for maintaining esophageal luminal patency in esophageal strictures caused by intrinsic and/or extrinsic malignant tumors and for occlusion of esophageal fistulae, and
- our Alimaxx-B® biliary stent systems, intended for the palliation of malignant strictures in the biliary tree.

We offer dilation balloons to endoscopically dilate strictures. Our balloon dilators products include:

- our Elation® Fixed Wire and Wire Guided Balloon Dilators, intended for use in the alimentary tract,
- our newly-added Elation Pulmonary Balloon Dilator, for the dilation of strictures of the trachea and bronchi, and
- our BIG60® Inflation Device, a 60-mL syringe and gauge designed to inflate and deflate non-vascular balloon dilators while monitoring and displaying inflation pressures up to 12 atmospheres.

We also offer a variety of kits and accessories for endoscopy and bronchoscopy procedures, including:

- our MAXXWIRE™ Guide Wire, used to position catheters and other interventional devices within the gastrointestinal tract and the tracheobronchial tree,
- our Brighton® Bipolar Probe, used to provide hemostasis throughout the gastrointestinal tract,
- our BiliQUICK™ Cholangiography Rapid Refill Continuous Injection Kit, a combination kit designed to deliver contrast media quickly and efficiently,
- our TIO™ Three-in-One, a combination oral airway, bite block and oxygen administration device,
- our BAL (bronchoalveolar lavage) Convenience Kit™, designed to save time and improve specimen quality during bronchoalveolar lavage procedures, and
- our Aspira® Drainage System, acquired from BD, sold in partnership with our peripheral intervention sales team.

Specialty Procedure Products

We provide coating services for medical tubes and wires under original equipment manufacturer (“OEM”) brands in addition to many of the products identified above. We offer coated tubes and wires to customers on a spool or as further manufactured components like hypotubes, guide wire components, coated mandrels/stylets and coated needles. We operate a hypotube manufacturing facility in Galway, Ireland, which provides advanced laser cutting and ablation, passivation, cleaning and other hypotube manufacturing processes.

Customers and clinicians often have unique needs when performing procedures, and we work closely with customers to create standard and customized trays, packs, and kits to enable clinicians to more effectively perform clinical procedures.

We also manufacture and sell microelectromechanical systems sensor components consisting of piezoresistive pressure sensors in various forms, including bare silicon die, die mounted on ceramic substrates, and fully calibrated components for numerous applications both inside and outside the healthcare industry.

Marketing and Sales

Target Market/Industry. Our principal target markets are peripheral intervention, cardiac intervention, interventional oncology, critical care and endoscopy. Within these markets our products are used in the following clinical areas: diagnostic and interventional cardiology; interventional radiology; neurointerventional radiology; vascular, general and thoracic surgery; electrophysiology; cardiac rhythm management; interventional pulmonology; interventional nephrology; orthopedic spine surgery; interventional oncology; pain management; breast cancer surgery, outpatient access centers; intensive care; computed tomography; ultrasound and interventional gastroenterology.

According to U.S. government statistics, cardiovascular disease continues to be a leading cause of death and a significant health problem in the U.S. Treatment options range from dietary changes to surgery, depending on the nature of the specific disease or disorder. Endovascular techniques, including angioplasty, stenting and endoluminal stent grafts, continue to represent important therapeutic options for the treatment of vascular disease. Breast cancer is the most commonly diagnosed cancer in women and is the second leading cause of cancer death among women. We derive a large percentage of our revenues from sales of products used during percutaneous diagnostic and interventional procedures such as angiography, angioplasty and stent placement, and we intend to pursue additional sales growth by building on our existing market position in both core technology and accessory products.

Marketing Strategy. As part of our product sales and marketing efforts, we attend major medical conventions throughout the world pertaining to our target markets and invest in market development including physician training, peer-to-peer education, and patient outreach. We work closely with major healthcare facilities and physicians involving our primary target markets in the areas of training, therapy awareness programs, clinical studies and ongoing research.

In general, our target markets are characterized by rapid change resulting from technological advances and scientific discoveries. We plan to continue to develop and launch innovative products to support clinical trends and to address the increasing demands of these markets.

Product Development Strategy. Our product development is focused on identifying and introducing a regular flow of profitable products that meet customer needs. To stay abreast of customer needs, we frequently seek suggestions from health care professionals working in the fields of medicine in which we offer, or are developing, products. Suggestions for new products and product improvements may also come from engineers, marketing and sales personnel, physicians and technicians who perform clinical procedures.

When we believe that a product suggestion demonstrates a sustainable competitive advantage, meets customer needs, fits strategically and technologically with our business and has a good potential financial return, we generally assemble a “project team” comprised of individuals from our sales, marketing, engineering, manufacturing, legal and quality assurance departments. This team works to identify the customer requirements, integrate the design, compile necessary documentation and testing, and prepare the product for market introduction. We believe that one of our marketing strengths is our capacity to conceive, design, develop and introduce new products.

U.S. and International Sales. Sales of our products in the U.S. accounted for approximately 56%, 58% and 61% of our net sales for the years ended December 31, 2018, 2017 and 2016, respectively. In the U.S., we have a dedicated, direct sales organization primarily focused on selling to end-user physicians, hospitals and clinics, major buying groups and integrated healthcare networks.

Internationally, we employ sales representatives and contract with independent dealer organizations and custom procedure tray manufacturers to distribute our products worldwide, including territories in Europe, the Middle East, Africa, Asia, Oceania, Central and South America and Canada. In 2018, our international sales grew approximately 26% over our 2017 international sales, and accounted for approximately 44% of our net sales. China represents our most significant international sales market with net sales of approximately $92.7 million, $73.4 million, and $59.9 million for the years ended December 31, 2018, 2017 and 2016, respectively. With the recent and planned additions to our product lines, we believe our international sales will continue to increase.

Our largest non-U.S. market is China, which represented approximately 10.5% of our net sales in 2018. We maintain a distribution center and administrative office in Beijing. We also have small sales offices in Shanghai, Guangzhou, and Hong Kong. We sell our products through more than 500 distributors in mainland China, who are responsible for reselling the products, primarily to hospitals. We employ sales personnel throughout China who work with our distributors to promote the clinical advantages of our products to clinicians and other decision makers at hospitals. Under this “modified direct” sales approach, our salespeople are involved with promoting the advantages of our products to clinicians and other customers, while the distributors handle sales transactions and address issues related to fulfillment and inventory management. With respect to our business activities in the rest of the Asia-Pacific region, in 2018 we continued to increase our sales presence and related new business development activities.

In Europe, the Middle East and Africa, we have both direct and modified direct sales operations. Our corporate sales operations are active throughout the region, including the largest markets of the UK, France, Germany, Russia and Turkey.

Our direct sales personnel are principally engaged in each of our product groups. Marketing teams responsible for each product group operate clinical education programs, often directed by leading subject matter personnel, who provide technical instruction on techniques and therapies to physicians, nurses and technologists. We are currently conducting education programs specific to radial access, spinal intervention, surgical grafts and electrophysiology.

We require our international dealers to store products and sell directly to customers within defined sales territories. Each of our products must be approved for sale under the laws of the country in which it is sold. International dealers are responsible for compliance with applicable anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act, as well as all applicable laws and regulations in their respective countries.

In Australia and Canada, we have both a direct sales force and distributors and we operate distribution centers in those countries. In connection with our acquisition of the critical care division of Argon, we have implemented a modified direct sales approach (similar to the approach we are pursuing in China) to market and sell the majority of our products in Japan.

We consider training to be a critical factor in the success of our sales force. Members of our sales force are trained by our clinical marketers, our staff professionals, consulting physicians, and senior field trainers in their respective territories.

OEM Sales. Our global OEM division sells components and finished devices, including molded components, sub-assembled goods, custom kits and bulk non-sterile goods, to medical device manufacturers. These products may be combined with other components and products from other companies and sold under a Merit or customer label. Products sold by our OEM division can be customized and enhanced to customer specifications, including packaging, labeling and a variety of physical modifications. Our OEM division serves customers with a staff of regional sales representatives based in the U.S., Europe and Asia, and a dedicated OEM Engineering and Customer Service Group.

Customers

We provide products to hospitals and clinic-based physicians, technicians and nurses. Hospitals and acute care facilities in the U.S. purchase our products through our direct sales force, distributors, OEM partners, or custom procedure tray manufacturers who assemble and combine our products in custom kits and packs. Outside the U.S., hospitals and acute care facilities generally purchase our products through our direct sales force, or, in the absence of a sales force, through independent distributors or OEM partners.

In 2018, 38% of our net sales to U.S. hospitals and clinics were derived through our direct sales force and approximately 8% of our net sales through other channels, such as U.S. custom procedure tray manufacturers and distributors. We also sell products to other medical device companies through our U.S. OEM sales force, which accounted for approximately 10% of our 2018 net sales. The remaining 44% of our 2018 net sales was attributable to sales made to international markets by our direct sales force, international distributors, and our OEM sales force. Sales to our largest customer accounted for approximately 2%, 2% and 3% of net sales during the years ended December 31, 2018, 2017 and 2016, respectively.

Research and Development

Our research and development operations have been central to our historical growth, and we believe they will be critical to our continued growth. In 2018, our commitment to innovation led to the introduction of several new products, improvements to our existing products and expansion of our product lines, as well as enhancements and new equipment in our research and development facilities.

We continue to develop new products and make improvements to our existing products utilizing many different sources. Our Chief Executive Officer and our Executive Vice President of Global Research & Development work closely with our sales and marketing teams to incorporate feedback from physicians and clinicians in the field, which can lead to innovative new products and improvements to our existing products.

Currently, we have research and development facilities in:

- Aliso Viejo and San Jose, California
- Dallas and Pearland, Texas

- Jackson Township, New Jersey
- Malvern, Pennsylvania
- South Jordan and West Jordan, Utah
- Galway, Ireland
- Paris, France
- Singapore
- Tijuana, Mexico
- Venlo, The Netherlands

Manufacturing

We manufacture many of our products utilizing our proprietary technology and our expertise in plastic injection and insert molding. We generally contract with third parties for the tooling of our molds, but we design and own most of our molds. We utilize our experience in injection and insert molding technologies in the manufacture of most of the custom components used in our products. We have received International Standards Organization ("ISO") 13485:2016 certification for our facilities in California, Pennsylvania, Texas, Utah, Ireland, France, Mexico, The Netherlands and Singapore. We have also received ISO 9001:2015 certification for our coatings facility in Venlo, The Netherlands and our Merit Sensor Systems, Inc. ("Merit Sensors") facility in South Jordan, Utah. Merit Sensors develops and markets silicon pressure sensors and presently supplies a substantial portion of the sensors we utilize in our digital inflation devices and blood pressure sensors.

Given the specialization of our manufacturing personnel and processes in our Utah and Ireland facilities, we possess the capability to strategically shift the manufacture of more technologically advanced products to those facilities and utilize the manufacturing capacity of our other facilities for more commoditized products. The actual determination of manufacturing location will be based upon multiple factors, including technological capabilities, market demand, acquisition and integration activities and economic and competitive conditions.

We currently produce and package all of our embolic products. Manufacturing of our embolic products includes the synthesis and processing of raw materials and third-party manufactured compounds.

We have packaging and manufacturing facilities located in Chester, Virginia; Galway, Ireland; Joinville, Brazil; Malvern, Pennsylvania; Melbourne, Australia; Paris, France; Pearland, Texas; Singapore; South Jordan and West Jordan, Utah; Tijuana, Mexico; and Venlo, The Netherlands. See Item 2. "Properties."

We have distribution centers located in Auckland, New Zealand; Bangalore, India; Beijing and Hong Kong, China; Chester, Virginia; Johannesburg, South Africa; Joinville, Brazil; Maastricht, The Netherlands; Malvern, Pennsylvania; Melbourne, Australia; Toronto, Canada; Podolsk, Russia; Seoul, South Korea; South Jordan, Utah; Tijuana, Mexico; and Tokyo, Japan. Additionally, in early 2019 we opened a distribution center in London, United Kingdom.

We believe that our variety of suppliers for raw materials and components necessary for the manufacture of our products, as well as our long-term relationships with such suppliers, promote stability in our manufacturing processes. Historically, we have not been materially affected by interruptions with such suppliers; however, we are experiencing a growing trend from suppliers of polymer resins to refuse to supply resin to medical device manufacturers or require that we assume additional risks due to the potential for product liability claims. We seek to develop and have relationships with potential back-up suppliers for materials and components in the event of supply interruptions. Additionally, there are a limited number of third parties that supply sterilization services for our medical devices. There are no assurances that we will not experience supply or sterilization service disruptions in the future. If we are unable to obtain raw materials or sterilization services, we may have to suspend product manufacturing which could materially harm our ability to meet customer demand.

Competition

The medical products industry is highly competitive. Many of our competitors are much larger than us and have access to greater resources. We also compete with smaller companies that sell single or limited numbers of products in specific product lines or geographies. We compete globally in several market areas, including diagnostic and interventional cardiology; interventional radiology; neurointerventional radiology; vascular, general and thoracic surgery; electrophysiology; cardiac rhythm management; interventional pulmonology; interventional nephrology; orthopedic spine surgery; interventional oncology; pain management; outpatient access centers; intensive care; computed tomography; ultrasound; and interventional gastroenterology.

The principal competitive factors in the markets in which our products are sold are quality, price, value, device features, customer service, breadth of line, and customer relationships. We believe our products have achieved market acceptance primarily due to the quality of materials and workmanship of our products, clinical outcomes, their innovative design, our willingness to customize our products to fit customer needs, and our prompt attention to customer requests. Our products are priced competitively, but generally not below prices for competing products. Some of our primary competitive strengths are our relative stability in the marketplace; a comprehensive, broad line of ancillary products; and our history of introducing a variety of new products and product line extensions to the market on a regular basis.

In the interventional cardiology, interventional radiology, gastroenterology, endoscopy, general surgery, thoracic surgery and pulmonology markets we compete with large international, multi-divisional medical supply companies such as Cordis Corporation (a Cardinal Health company); Boston Scientific Corporation ("Boston Scientific") (including the operations previously conducted by BTG plc); Medtronic plc ("Medtronic"); Abbott Laboratories; Teleflex Incorporated; Becton, Dickinson and Company ("BD"); Cook Medical Incorporated ("Cook Medical"); Guerbet Company; Stryker Corporation ("Stryker"); 3M Company; ICU Medical, Inc. and Terumo Corporation ("Terumo"). Medium-size companies we compete with include B. Braun Melsungen AG; UreSil LLC; Olympus Corporation; Edwards Lifesciences; Argon Medical Devices, Inc.; ConMed Corporation; AngioDynamics, Inc.; Medical Components, Inc. and U.S. Endoscopy.

Within the breast cancer therapy space, we believe we are a market leader in the U.S. in wire-free breast tumor localization. Currently, we compete with Leica Biosystems Nussloch GmbH and Hologic, Inc.

Based on available industry data, with respect to the number of procedures performed, we believe we are a leading provider of digital inflation technology in the world. In addition, we believe we are one of the market leaders in the U.S. for analog inflation devices. We believe we are a market leader in the U.S. for control syringes, waste-disposal systems, tubing and manifolds. Although we believe our recent and planned additions to these product lines will help us compete even more effectively in both the U.S. and international markets, we cannot give any assurance that we will be able to maintain our existing competitive advantages or compete successfully in the future.

We derive a substantial majority of our revenues from sales of products used in diagnostic angiography, interventional cardiology and radiology procedures. We believe medical professionals are starting to use new interventional methods, procedures and devices, as well as drugs, for the treatment and prevention of cardiovascular disease. These new methods, procedures, devices and drugs may render some of our products obsolete or limit the markets for our products. However, with the advent of our vascular stents and other procedures, we have experienced continued growth in sales of our products.

In the vertebral augmentation market, our main competitors are Medtronic and Stryker. Both Medtronic and Stryker offer products to treat vertebral compression fractures, but only Medtronic offers products to treat metastatic spine tumors.

Within the field of uterine fibroid embolization ("UFE") and PAE, we believe we are a market share leader. Based on both research and clinical studies conducted on our product for UFE and PAE, we believe we offer physicians consistent and predictable product performance, ease of use, targeted delivery, and durable vessel occlusion, and therefore satisfactory short- and long-term clinical outcomes validated by peer-reviewed publications, when compared to our competitors.

Our primary embolotherapy product has been Embosphere Microspheres. In the microsphere and embolic particle market we compete with Boston Scientific (including the operations previously conducted by BTG plc); Cook Medical; Terumo; and Pfizer Inc.

Proprietary Rights and Litigation

We rely on a combination of patents, trade secrets, trademarks, copyrights and confidentiality agreements to protect our intellectual property. We have a number of U.S. and foreign-issued patents and pending patent applications, including patents and rights to patent applications acquired through strategic transactions, which relate to various aspects of our products and technology. The duration of our patents is determined by the laws of the country of issuance and, for the U.S., is typically 20 years from the date of filing of the patent application. As of December 31, 2018, we owned or had a license to more than 1,500 U.S. and international patents and patent applications. Additionally, we hold exclusive and non-exclusive licenses to a variety of third-party technologies covered by patents and patent applications. In the aggregate, our intellectual property assets are critical to our business, but no single patent, trademark or other intellectual property asset is of material importance to our business.

The Merit® name and logo are trademarks in the U.S. and other countries. In addition to the Merit name and logo, we have used, registered or applied for registration of other specific trademarks and service marks to help distinguish our products, technologies and services from those of our competitors in the U.S. and foreign countries. See “Products” above. The duration of

our trademark registrations varies from country to country; in the U.S. we generally can maintain our trademark rights and renew any trademark registrations for as long as the trademarks are in use. As of December 31, 2018, we owned over 400 U.S. and foreign trademark registrations and trademark applications.

There is substantial litigation regarding patents and other intellectual property rights in the medical device industry. At any given time, we may be involved as either a plaintiff or a defendant, as well as a counter-claimant or counter-defendant, in patent, trademark, and other intellectual property infringement actions. If a court rules against us in any intellectual property litigation we could be subject to significant liabilities, be forced to seek licenses from third parties, or be prevented from marketing certain products. In addition, intellectual property litigation is costly and may consume significant time of employees and management.

Regulation

U.S. Regulation. The Food and Drug Administration ("FDA") and other federal, state and local authorities regulate our products and product-related activities. Under the Federal Food, Drug, and Cosmetic Act ("FDCA") and accompanying regulations, the FDA regulates the design, development, clinical trials, testing, manufacture, packaging, labeling, storage, distribution and promotion of medical devices. We believe our products and procedures are in material compliance with all applicable FDA regulations, but the regulations are subject to change. We cannot predict the effect, if any, that these changes may have on our business. In addition, if we experience regulatory problems with a product or manufacturer, we could become subject to fines, delays or suspensions of regulatory clearances, seizures or recalls of products, operating restrictions, and criminal prosecution. Such actions could have a material adverse effect on our business, financial condition or results of operations.

In October 2016, we received a subpoena from the U.S. Department of Justice seeking information on certain of our marketing and promotional practices. We are in the process of responding to the subpoena, which we anticipate will continue during 2019. The investigation is ongoing and at this time we are unable to predict its scope, duration or outcome. Investigations such as this may result in the imposition of, among other things, significant damages, injunctions, fines or civil or criminal claims or penalties against our company or individuals.

Overview of the FDA Regulation of Devices. The FDCA establishes a risk-based classification system for medical devices and applies regulatory controls commensurate with the risk posed by a device:

- Class I devices are those for which safety and effectiveness can be reasonably assured by adherence to the FDA's general regulatory controls, which include compliance with the applicable portions of the FDA's Quality System Regulations (QSRs), facility registration and product listing, reporting of certain adverse medical events and malfunctions, and compliance with the FDA's restrictions against misbranding and adulteration. While most Class I devices are exempt from the 510(k) premarket notification process (assuming they are within the limitations of the exemption), some Class I devices also require 510(k) clearance by the FDA.

- Class II devices are subject to the FDA's general controls, including the design control requirements of the QSRs, and any other special controls deemed necessary by the FDA to provide reasonable assurance of the safety and effectiveness of the device. While most Class II devices require premarket review and clearance by the FDA through the 510(k) premarket notification procedure, some Class II devices are exempt from the 510(k) premarket notification process (assuming they are within the limitations of the exemption).

- Class III devices are those deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or those devices deemed not substantially equivalent to a legally marketed predicate device. Class III devices include those devices for which the FDA has determined that general and special controls alone are insufficient to assure the safety and effectiveness of the device.

FDA Premarket Review. In general, we cannot introduce a new medical device into the market until we obtain market clearance through a 510(k) premarket notification or approval through a premarket approval ("PMA") application. Some devices, typically lower-risk devices, are subject to specific exemptions from premarket review. In addition, in limited cases, devices may come to the market through alternative procedures, such as a de novo classification request or humanitarian device exemption.

To obtain 510(k) clearance, a device manufacturer must submit a premarket notification to the FDA demonstrating that the device is substantially equivalent to another legally marketed predicate device. A predicate device is a device that has been cleared through the 510(k) process; a device that was legally marketed prior to May 28, 1976; a device that has been down-classified by the FDA to Class I or Class II; or a device that the FDA has previously determined to be exempt from the 510(k) process. To be substantially equivalent, the notification must show that the new device has the same intended use and the same

technology as the predicate device, or, if the new device has different technology, that the device is as safe and effective as the predicate device and does not raise different questions of safety and effectiveness. Performance testing is generally required to demonstrate substantial equivalence, and, for some devices, clinical data may be required. The standards and data requirements necessary for the clearance of a new device may be unclear or may be subject to change. In addition, the FDA may publish or adopt special controls it deems necessary to provide a reasonable assurance of the safety and effectiveness of a device, which might include standards for the testing and clearance of a new device. The 510(k) clearance procedure usually takes between three months and one year from the date a 510(k) notification is submitted, but it may take longer. The FDA may find that substantial equivalence has not been shown and, as a result, require additional clinical or non-clinical testing to support a 510(k) or require the submission of a de novo classification request or PMA application for the device.

A de novo classification is an alternate pathway to classify novel devices that are low to moderate risk but for which no substantially equivalent predicate device exists. Clearance of a de novo request generally takes six months to one year from the time of submission of the de novo request, although it can take longer.

A PMA application is required for Class III devices. The application must demonstrate that there is reasonable assurance that the device is safe and effective for its intended use based on valid scientific evidence. The PMA application process can be expensive, generally takes several years to complete and typically includes, among other things, human clinical trials, manufacturing facility inspection, bench tests and laboratory and animal studies, which can be costly to conduct. There is also a substantial “user fee” that must be paid to the FDA in connection with the submission of each PMA application. The FDA may determine that additional information, including clinical data, be submitted before a determination is made, which could significantly delay the introduction of new devices. If the FDA approves the PMA application, it may place restrictions on the device. If the FDA's evaluation of the PMA application is not favorable, the FDA may deny approval of the PMA application or issue a “not approvable” letter. The FDA may also require additional testing or clinical trials prior to approval or as a condition of approval.

If human clinical trials of a medical device are required for FDA clearance or approval and the device presents a significant risk, the sponsor of the trial must file an investigational device exemption (“IDE”) application with the FDA prior to commencing human clinical trials in the USA. Submission of an IDE application does not ensure that the FDA will issue the IDE. If the IDE application is approved, there can be no assurance the FDA will determine that the data derived from the trials support the safety and effectiveness of the device or warrant the continuation of clinical trials. An IDE supplement must be approved by the FDA before a sponsor or investigator may make a change to the investigational plan in such a way that may affect its scientific soundness, study indication or the rights, safety or welfare of human subjects. For clinical trials involving a device that does not present a significant risk, the sponsor is not required to obtain approval of an IDE, but the sponsor must obtain the review and approval of an institutional review board. Both significant risk and non-significant risk trials are subject to additional FDA regulations, including a requirement to obtain informed consent and reporting and recordkeeping requirements. We, the FDA, or the institutional review board, may suspend a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits.

The FDA clearance and approval processes for medical devices are expensive, uncertain and lengthy. There can be no assurance that we will be able to obtain necessary regulatory clearances or approvals for any product on a timely basis or at all. Delays in receipt of or failure to receive such clearances or approvals, the loss of previously received clearances or approvals, or the failure to comply with existing or future regulatory requirements could have a material adverse effect on our business, financial condition or results of operations. In addition, if the FDA discovers that an applicant has submitted false or misleading information, the FDA may refuse to review submissions until certain requirements are met pursuant to its Application Integrity Policy, which specifies procedures that the FDA personnel should follow to ensure the integrity of data and information in applications submitted for FDA review and approval.

Clinical Trials. We conduct clinical trials to obtain PMA approval or 510(k) clearance from the FDA and to obtain CE Marking approval and other international equivalents. In order for us to obtain the desired regulatory approvals, we will need to complete the trial(s) and submit positive clinical data to the regulatory authority. If we cannot enroll study subjects in sufficient numbers to complete the necessary studies, if there is a disruption in the supply of materials for the trials, if there is a change in the standard of care or available competing therapies, or depending on other factors, we will likely not be able to complete the trial(s). Even if we complete the clinical trial(s), the regulatory authority may require us to undertake additional testing, or the trial results may not be sufficient to obtain regulatory approval for other reasons, including inconclusive or negative results of our trials or those conducted by our competitors or other third parties. If we do not obtain regulatory authority approval of the product use claimed in a clinical trial, we will not be able to sell, distribute or promote the subject product for the indicated treatment of the specific disease or condition.

Changes in Cleared or Approved Devices. Certain modifications to our marketed devices, including certain manufacturing changes, product enhancements and product line extensions, require new 510(k) clearance or approval of a PMA

supplement. For devices marketed under an approved PMA, we must submit a PMA supplement to the FDA for review and approval prior to making a change to the device that affects the safety or effectiveness of the device, including changes to the design, manufacturing or labeling of the device. Likewise, for 510(k)-cleared devices, we must obtain new FDA 510(k) clearance when there is a major change or modification in the intended use or indications for use or a change or modification of the device that could significantly affect the safety or effectiveness of the device. In some cases, clinical data may be required to support a PMA supplement or 510(k) premarket notification for a device modification. The FDA may determine that a modified device is not substantially equivalent to the marketed device or may require that additional information, including clinical data, be submitted before a determination is made, either of which could significantly delay the introduction of modified devices.

Foreign jurisdictions have similar requirements that necessitate submission and review when changes are made to currently available devices, including product line extensions. These requirements vary between regions and are subject to ongoing change by their respective regulatory bodies. Prior review and approval in these regions may be required prior to making a change to the device that affects the safety or effectiveness of the device, including changes to the design, manufacturing or labeling of the device. In some cases, clinical data may be required. The process to obtain approval of a modified devices could significantly delay its introduction.

Quality System Requirements. The FDCA requires us to comply with the Quality System Regulation ("QSR") and various foreign regulations require compliance with ISO 13485 or national law requirements pertaining to all aspects of our product design and manufacturing processes, including requirements for packaging, labeling, record keeping, personnel training, supplier qualification, design controls, complaint handling, corrective and preventive actions and internal quality system auditing. The FDA and foreign regulators enforce these requirements through periodic inspections of medical device manufacturers. These requirements are complex, technical and require substantial resources to remain compliant. Our failure or the failure of our suppliers to maintain compliance with these requirements could result in the shutdown of our manufacturing operations or the recall of our products, which would have a material adverse effect on our business. If one of our suppliers fails to maintain compliance with our quality requirements, we may have to qualify a new supplier and could experience manufacturing delays as a result. We also could be subject to injunctions, product seizures, or civil or criminal penalties.

Labeling and Promotion. Our labeling and promotional activities are also subject to scrutiny by the FDA and foreign regulators. Labeling includes not only the label on a device, but also includes any descriptive or informational literature that accompanies or is used to promote the device. Among other things, labeling violates the law if it is false or misleading in any respect or it fails to contain adequate directions for use. Moreover, product claims that are outside the approved or cleared labeling violate the FDCA and other applicable regulations. If the FDA determines that our promotional materials constitute promotion of an uncleared or unapproved use, or otherwise violate the FDCA, it could request that we modify our promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a notice of violation, a warning letter, injunction, seizure, civil fines or criminal penalties. Allegations of off-label promotion can also result in enforcement action by federal, state, or foreign enforcement authorities and trigger significant civil or criminal penalties, including exclusion from the Medicare and Medicaid programs and liability under the False Claims Act, discussed further below.

Our product promotion is also subject to regulation by the Federal Trade Commission (the "FTC"), which has primary oversight of the advertising of unrestricted devices. The Federal Trade Commission Act prohibits unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce, as well as unfair or deceptive practices such as the dissemination of any false or misleading advertisement pertaining to medical devices. FTC enforcement can result in orders requiring, among other things, limits on advertising, corrective advertising, consumer redress, rescission of contracts and such other relief as the FTC may deem necessary.

In addition, under the federal Lanham Act and similar state laws, competitors and others can initiate litigation relating to advertising claims.

Import Requirements. To import a medical device into the U.S., the importer must file an entry notice and bond with the U.S. Bureau of Customs and Border Protection ("CBP"). All devices are subject to FDA examination before release from the CBP. Any article that appears to be in violation of the FDCA may be refused admission and a notice of detention and hearing may be issued. If the FDA ultimately refuses admission, the CBP may issue a notice for redelivery and assess liquidated damages for up to three times the value of the lot. Additionally, the laws of the U.S. require imported articles to have their labels accurately marked with the appropriate country of origin, the violation of which may result in confiscation, fines and penalties.

Export Requirements. Products for export are subject to foreign countries' import requirements and the exporting requirements of the exporting countries' regulating bodies, as applicable. In particular, international sales of medical devices manufactured in the U.S. that are not approved or cleared by the FDA for use in the U.S., or are banned or deviate from lawful performance standards, are subject to FDA export requirements and we may not be able to export such products.

Foreign countries often require, among other things, an FDA certificate for products for export, also called a Certificate to Foreign Government. To obtain this certificate from the FDA, the device manufacturer must apply to the FDA. The FDA certifies that the product has been granted clearance or approval in the U.S. and that the manufacturing facilities were in compliance with the QSR at the time of the last FDA inspection.

Additionally, the export of our products to certain countries is subject to restrictions due to trade and economic sanctions imposed by the U.S., the European Union (the "EU") and other governments and organizations. The U.S. Departments of Justice, Commerce, State and Treasury and other federal agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against corporations and individuals for violations of economic sanctions laws, export control laws, and other federal statutes and regulations, including those established by the Office of Foreign Assets Control (“OFAC”). Under these laws and regulations, as well as other export control laws, customs laws, sanctions laws and other laws governing our operations, various government agencies may require export licenses and may seek to impose modifications to business practices, including cessation of business activities in sanctioned countries or with sanctioned persons or entities.

Additional Post-Market Requirements. Medical device manufacturers are also subject to other post-market requirements in multiple jurisdictions, including product listing, establishment registration, Unique Device Identification ("UDI"), reports of corrections and removals and other requirements. Medical Device Reporting required by the FDA, medical device vigilance reporting requirements under the European Medical Devices Directive and similar regulations in other foreign markets, require manufacturers to report to the FDA or an equivalent foreign regulatory body any incident in which their device may have caused or contributed to a death or serious injury, or has malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction of the device or a similar device were to recur. Our obligation to report a complaint is triggered on the date on which we become aware of an adverse event and the nature of the event. If we fail to comply with our reporting obligations, the FDA could issue warning letters or untitled letters, take administrative actions, commence criminal prosecution, impose civil monetary penalties, revoke our device clearances, seize our products, or delay the clearance of our future products. Other regulatory authorities could take similar actions within their jurisdictions.

The FDA regularly inspects companies to determine compliance with the QSRs and other post-market requirements. Failure to comply with statutory requirements and the FDA’s regulations can result in an FDA Form 483 (which is issued by the FDA at the conclusion of an inspection when an investigator has observed any conditions that may constitute violations), public warning letters, monetary penalties against a company or its officers and employees, suspension or withdrawal of regulatory approvals, operating restrictions, total or partial suspension of production, injunctions, product recalls, product detentions, refusal to provide export certificates, seizure of products and criminal prosecution. Other regulatory authorities, including EU Notified Bodies, regularly audit companies to determine compliance with ISO 13485 and their respective regulations. They may take similar actions as FDA within their jurisdictions.

Foreign Regulations. Medical device laws and regulations are also in effect in many countries outside of the U.S. These laws and regulations vary significantly from country to country and range from comprehensive device approval requirements for some or all of our medical device products to more basic requests for product data or certification. The number, scope, complexity and cost of these requirements are increasing.

Foreign regulatory approval processes for medical devices are expensive, uncertain and lengthy. There can be no assurance that we will be able to obtain necessary regulatory approvals for any product on a timely basis or at all. Delays in receipt of or failure to receive such approvals, the loss of previously received approvals, or the failure to comply with existing or future regulatory requirements could have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for medical devices in the European Economic Area underwent a significant revision in 2017, which has introduced new regulatory requirements to obtain CE Mark approval. The new Medical Device Regulations (“MDR”) include a three-year transition period which is scheduled to end in May 2020. The MDR includes increasingly stringent requirements in multiple areas, such as pre-market clinical evidence (some of which are now in effect), review of high-risk devices, labeling and post-market surveillance. Under the MDR, pre-market clinical data will now be required to obtain CE Mark approval for high-risk, new and modified medical devices. We believe these new requirements have the potential to be expensive and time-consuming to implement and maintain and could have a material adverse effect on our business.

Reimbursement. Our products are generally used in medical procedures that are covered and reimbursed by governmental payers, such as Medicare, and/or private health plans. In general, these third-party payers cover a medical device and/or related procedure only when the payer determines that healthcare outcomes are supported by medical evidence and the device or procedure is medically necessary for the diagnosis or treatment of the patient’s illness or injury. Even if a device has received clearance or approval for marketing by the FDA or a similar foreign regulatory agency, there is no certainty that third-party payers will cover

and reimburse for the cost of the device and related procedures. Because of increasing cost-containment pressures, some private payers in the U.S. and government payers in foreign countries may also condition payment on the cost-effectiveness of the device or procedure. Even if coverage is available, third-party payers may place restrictions on the circumstances in which they provide coverage or may offer reimbursement that is not sufficient to cover the cost of our products. If healthcare providers such as hospitals and physicians cannot obtain adequate coverage and reimbursement for our products or the procedures in which they are used, this may affect demand for our products and our business, financial condition, results of operations, or cash flows could suffer a material adverse impact.

Patient Protection and Affordable Care Act. The Patient Protection and Affordable Care Act ("Affordable Care Act") has changed the way healthcare in the U.S. is financed by both governmental and private insurers and has significantly affected the medical device industry. This law contains a number of provisions, including provisions governing enrollment in federal healthcare programs, reimbursement changes, the increased funding of comparative effectiveness research for use in healthcare decision-making, and enhancements to fraud and abuse requirements and enforcement, that we believe affect existing government healthcare programs and result in the development of new programs. The Affordable Care Act imposed on medical device manufacturers a 2.3% excise tax on U.S. sales of certain medical devices, which adversely affected our gross profit and earnings for our marketed products in 2015. The U.S. Congress suspended the excise tax for the 2016-2018 tax years and recently extended the suspension until January 1, 2020. We cannot predict whether any new action will be taken and whether the suspension will continue past 2020. If the excise tax is not repealed or further suspended, it will likely adversely impact our future results of operations.

Additionally, the long-term viability of the Affordable Care Act, and its impact on our business and results of operations, remains uncertain. For instance, in December 2017, the U.S. enacted the Tax Cuts and Jobs Act, which, among other things, eliminated the tax penalty for not obtaining health coverage (beginning in 2019). Additionally, members of the U.S. Congress have suggested other changes that may impact individual insurance marketplaces. These and other legislative and executive initiatives may significantly change the scope and impact of the Affordable Care Act and, in turn, the medical device industry. See Note 6 of the notes to our consolidated financial statements for further information on the Tax Cuts and Jobs Act.

The U.S. Physician Payment Sunshine Act, and similar state laws, also include annual reporting and disclosure requirements for device manufacturers aimed at increasing the transparency of the interactions between device manufacturers and healthcare providers. Reports submitted under these new requirements are placed in a public database. Other jurisdictions outside the U.S. have also adopted or begun adopting similar physician transparency laws. In addition to the burden of establishing processes for compliance, if we fail to provide these reports, or if the reports we provide are not accurate, we could be subject to significant penalties.

Anti-Corruption Laws. Anti-corruption laws are in place in the U.S. and in many jurisdictions throughout the world. In the U.S., the Foreign Corrupt Practices Act (the "FCPA") prohibits corruptly offering, paying, or promising to pay anything of value to foreign officials for the purpose of obtaining or maintaining business. Anti-corruption laws present particular challenges in the medical device industry because in many countries including China, hospitals are state-owned or operated by the government, and doctors and other hospital employees are considered foreign government officials. The FCPA also requires that we maintain fair and accurate books and records and devise and maintain an adequate system of internal accounting controls. Among other requirements to implement compliance, we are required to train our U.S. and international employees, and to train and monitor foreign third parties with whom we contract, e.g., distributors, to ensure compliance with these anti-corruption laws. Failing to comply with the FCPA or any other anti-corruption law could result in fines, penalties or other adverse consequences. In addition, the Chinese government has also sponsored anti-corruption campaigns from time to time, which could have a chilling effect on any future marketing efforts by us to new hospital customers. There have been occurrences in which certain hospitals have denied access to sales representatives from medical device companies because the hospitals wanted to avoid the perception of corruption. If this attitude becomes widespread among our potential customers, our ability to promote our products to hospitals may be adversely affected.

As we expand our operations in China and other jurisdictions internationally, we will need to increase the scope of our compliance programs to address the risks relating to the potential for violations of the FCPA and other anti-corruption laws. Our compliance programs will need to include policies addressing not only the FCPA, but also the provisions of a variety of anti-corruption laws in multiple foreign jurisdictions, including China, provisions relating to books and records that apply to us as a public company, and include effective training for our personnel and relevant third-parties.

Anti-Kickback Statutes. The federal healthcare Anti-Kickback Statute prohibits persons from, among other things, knowingly and willfully offering or paying remuneration, directly or indirectly, to a person to induce the purchase, order, lease, or recommendation of a good or service for which payment may be made in whole or part under a federal healthcare program such as Medicare or Medicaid, unless the arrangement fits within one of several statutory exemptions or regulatory "safe harbors."

The definition of remuneration has been broadly interpreted to include anything of value, including, for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash and waivers of payments. Violations can result in significant penalties, imprisonment and exclusion from Medicare, Medicaid and other federal healthcare programs. Exclusion of a manufacturer would preclude any federal healthcare program from paying for the manufacturer's products. In addition, kickback arrangements can provide the basis for an action under the False Claims Act, which is discussed in more detail below. A party's failure to fully satisfy a regulatory "safe harbor" provision may result in increased scrutiny by government enforcement authorities.

Government officials continue their enforcement efforts on the sales and marketing activities of pharmaceutical, medical device and other healthcare companies, including the pursuit of cases against individuals or entities that allegedly offered unlawful inducements to potential or existing customers to procure their business. Settlements of these government cases have involved significant fines and penalties and, in some instances, criminal pleas.

In addition to the Anti-Kickback Statute, many states have their own anti-kickback laws. Often, these laws closely follow the language of the federal law, although they do not always have the same exceptions or safe harbors. In some states, these anti-kickback laws apply with respect to all payers, including commercial health insurance companies.

False Claims Laws. The False Claims Act prohibits any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, or causing to be made, a false statement to get a false claim paid. Manufacturers can be held liable under false claims laws, even if they do not submit claims to the government, if they are found to have caused submission of false claims. Under the Affordable Care Act, a violation of the Anti-Kickback Statute is deemed to be a violation of the False Claims Act. The False Claims Act also includes whistleblower provisions that allow private citizens to bring suit against an entity or individual on behalf of the U.S. and to recover a portion of any monetary recovery. Many of the recent, highly publicized settlements in the healthcare industry relating to sales and marketing practices have been cases brought under the False Claims Act. Most states also have adopted statutes or regulations similar to the federal laws, which apply to items and services reimbursed under Medicaid and other state programs. Sanctions under the Federal Claims Act and state laws may include civil monetary penalties, exclusion of a manufacturer's products from reimbursement under government programs, criminal fines and imprisonment.

Labor Standards Laws. We are also subject to corporate social responsibility ("CSR") laws and regulations which require us to monitor the labor standards in our supply chain, including the California Transparency in Supply Chains Act, the UK Modern Slavery Act, and U.S. Federal Acquisition Regulations regarding Combating Trafficking in Persons. These CSR laws and regulations may impose additional processes and supplier management systems and have led certain key customers to impose additional requirements on medical device companies, including audits, as a prerequisite to selling products to such customers, which could result in increased costs for our products, the termination or suspension of certain suppliers, and reductions in our margins and profitability.

Privacy and Security. The Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the Health Information Technology for Economic and Clinical Health Act (the "HITECH Act"), and accompanying rules, require certain entities, referred to as "covered entities" (including most healthcare providers and health plans), to comply with established standards, including standards regarding the privacy and security of protected health information ("PHI"). HIPAA further requires that covered entities enter into agreements meeting certain regulatory requirements with their "Business Associates," as such term is defined by HIPAA, which, among other things, obligate the Business Associates to safeguard the covered entity's PHI against improper use and disclosure. In addition, a Business Associate may face significant statutory and contractual liability if the Business Associate breaches the agreement or causes the covered entity to fail to comply with HIPAA. Additionally, many state laws regulate the use and disclosure of health information and require notification in the event of breach of such information.

Although we do not believe we are a "covered entity" under HIPAA and do not meet the definition of Business Associate, we are committed to maintaining the security and privacy of patients' health information and believe that we meet the expectations of the HIPAA rules in all material respects. However, to the extent we become subject to HIPAA, whether through a change in our business model or an enforcement action brought by the U.S. government, we would be directly subject to a broader range of requirements under HIPAA, HITECH, the rules issued thereunder and their respective civil and criminal penalties.

The EU has adopted a single EU privacy regulation, the General Data Protection Regulation ("GDPR"), which went into effect May 25, 2018. The GDPR extends the scope of the EU data protection law to all companies processing personal data in the context of the activities of an establishment of a controller or a processor in the EU, regardless of whether the processing takes place in the EU or not. In addition, it applies to the processing of personal data of data subjects who are in the EU by a controller or processor not established in the EU, where the processing activities are related to: (a) the offering of goods or services, irrespective of whether a payment of the data subject is required, to such data subjects in the EU; or (b) the monitoring of their behavior as far as their behavior takes place within the EU. The GDPR provides for a harmonization of the data protection regulations throughout

the EU. It imposes a strict data protection compliance regime with severe penalties of up to the greater of 4% of worldwide sales or €20 million and includes new rights such as the "portability" of personal data. Although the GDPR will apply across the EU without a need for local implementing legislation, it contains a number of opener clauses enabling the EU member states to provide for additional legislation. In addition, local data protection authorities will still have the ability to interpret the GDPR, which has the potential to create inconsistencies on a country-by-country basis. We have implemented changes to our business practices to comply with the GDPR.

We post on our websites our privacy policies and practices regarding the collection, use and disclosure of user data. Any failure, or perceived failure, by us to comply with our posted privacy policies or with any applicable regulatory requirements or orders, or privacy, data protection, information security or consumer protection-related privacy laws and regulations in one or more jurisdictions, could result in proceedings or actions against us by governmental entities or others, including class action privacy litigation in certain jurisdictions, subject us to significant fines, penalties, judgments and negative publicity, require us to change our business practices, increase the costs and complexity of compliance, and adversely affect our business. Data protection, privacy and information security have become the subject of increasing public, media and legislative concern. If our customers were to reduce their use of our products and services as a result of these concerns, our business could be materially harmed. As noted above, we are also subject to the possibility of security and privacy breaches, which themselves may result in a violation of these privacy laws.

Environmental, Health and Safety Regulations. We are subject to various federal, state, local and foreign laws and regulations relating to the protection of the environment, as well as public and employee health and safety. In the course of our business, we are involved in the handling, storage and disposal of certain chemicals. The laws and regulations applicable to our operations include provisions that regulate the release or discharge of hazardous or other regulated materials into the environment. These environmental laws and regulations may impose "strict liability," rendering a person liable without regard to negligence or fault on the part of such person. Such environmental laws and regulations may expose us to liability for the conduct of, or conditions caused by, others, or for acts that were in non-compliance with all applicable laws at the time the acts were performed. Failure to comply with applicable environmental laws could have a material adverse effect on our business. Our operations are also subject to various laws and regulations relating to occupational health and safety. We maintain safety, training and maintenance programs as part of our ongoing efforts to ensure compliance with applicable laws and regulations. Compliance with applicable health and safety laws and regulations has required and continues to require expenditures. Environmental, health and safety legislation and regulations change frequently. Changes in those regulations could have a material adverse effect on our business, operations or financial condition.

Seasonality

Our worldwide sales have not historically reflected a significant degree of seasonality; however, customer purchases have historically been lower during the third quarter of the year, as compared to other quarters. This reflects, among other factors, lower demand during summer months in countries in the northern hemisphere.

Environmental Sustainability Practices

We are engaged and passionate about continually innovating solutions to produce the highest quality medical products while reducing our global environmental footprint. Each year, we track and measure our environmental performance, holding ourselves accountable and continually looking for ways to improve.

We have designed programs to reduce waste including:

- our major program to reduce film thickness in kit packaging, without compromising on quality,
- our transition to re-usable pallets and methods to move products in bulk containers, significantly reducing intra-company shipping materials,
- our packaging design, which allows our products to ship to customers in its original packaging, eliminating the need for additional shipping materials, such as boxes and plastic bubble wrap,
- our transition from paper to electronic work orders in our facilities worldwide, from which we expect to reduce our paper usage by approximately 2.8 million pieces and 20,000 plastic sleeves annually,
- our GreenChoice™ program for our kits and packs, which now gives our customers the option to choose eco product alternatives—such as trays and natural fiber towels—that can be included in their order,
- our Employee Recycling Program, in which our employees recycle as many materials as we can, including paper, cardboard, food and beverage containers, scrap metal, and pallets,

- our partnership with companies who can use our plastic waste that surrounds a finished molded part and
- our investment in a line of fully compostable “to-go” containers made from plant starch and sugarcane and our program to transition to reusable cutlery at all of our dining facilities worldwide, reducing the amount of cutlery and plates waste sent to landfills.

LEED Certification

We have been awarded Silver LEED (Leadership in Energy and Environmental Design) certification for our Bean Building, the newest addition to our Salt Lake City campus.

Employees

As of December 31, 2018, we employed 5,783 people. None of our U.S. employees are subject to collective bargaining agreements; however, certain of our European employees are subject to such agreements. We believe our employee relations are generally good. Although our European employees will likely continue to be subject to collective organizing and bargaining activities, we do not expect such activities to materially affect our future operations.

Recent Developments

None.

Available Information

We file annual, quarterly and current reports and other information with the SEC. These materials can be inspected and copied at the SEC’s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Copies of these materials may also be obtained by mail at prescribed rates from the SEC’s Public Reference Room at the above address. Information about the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of the SEC’s Internet website is www.sec.gov.

We make available, free of charge, on our Internet website, located at www.merit.com, our most recent Annual Report on Form 10-K, our most recent Quarterly Reports on Form 10-Q, any Current Reports on Form 8-K filed since our most recent Annual Report on Form 10-K, and any amendments to such reports as soon as reasonably practicable following the electronic filing of such report with the SEC. In addition, we provide electronic or paper copies of such filings free of charge upon request.

Financial Information About Foreign and Domestic Sales

For financial information relating to our foreign and domestic sales see Note 2 and Note 13 to our consolidated financial statements set forth in Item 8 of this report.

Item 1A. Risk Factors.

Our business, operations and financial condition are subject to certain risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should any underlying assumptions prove incorrect, our actual results will vary, and may vary materially, from those anticipated, estimated, projected or expected. Among the key factors that may have a direct bearing on our business, operations or financial condition are the factors identified below:

We may be unable to successfully manage growth, particularly if accomplished through acquisitions, and the integration of acquired businesses may present significant challenges that could harm our operations.

Successful implementation of our business strategy will require that we effectively manage any associated growth. To manage growth effectively, our management will need to continue to implement changes in certain aspects of our business, to improve our information systems, infrastructure and operations to respond to increased demand, to attract and retain qualified personnel, and to develop, train, and manage an increasing number of management-level and other employees. Growth could place an increasing strain on our management, sales and other personnel, and on our financial, product design, marketing, distribution, technology and other resources, and we could experience operating difficulties. Any failure to manage growth effectively could have a material adverse effect on our business, operations or financial condition.

Over the past several years, we have completed a series of significant acquisitions and, at any given time, we may be considering a number of potential further acquisitions and strategic transactions, certain of which may also be significant. As we grow through acquisitions, we face the additional challenges of integrating the operations, culture, information management systems and other characteristics of the acquired entity with our own, including sales models related to capital equipment. Our efforts to integrate future acquisitions may be hampered by delays, the loss of certain employees, suppliers or customers, proceedings resulting from employment terminations, culture clashes, unbudgeted costs, and other issues, which may occur at levels that are more severe or prolonged than anticipated. Additionally, past and future acquisitions may increase the risks of competition we face by, among other things, extending our operations into industry segments and product lines where we have few existing customers or qualified sales personnel and limited expertise. For example, although we acquired certain tunneled home drainage catheter and soft tissue core needle biopsy products from BD in February 2018, BD retained other products that directly compete with the products we acquired. As BD is a larger company with a more well-established market presence in such product lines, we may be unable to realize expected benefits from the acquisition in the timeframe anticipated or at all. Further, as a result of several of our completed acquisition and other strategic transactions, we are selling capital equipment, in addition to our historical sales of disposable medical devices. The sale of capital equipment may create additional risks and potential liability, which may negatively affect our business, operations or financial condition.

We have incurred, and will likely continue to incur, significant expenses in connection with negotiating and consummating various acquisition and other strategic transactions, and we may inherit significant liabilities in connection with prospective acquisitions or other strategic transactions, including regulatory, infringement, product liability, discrimination or other legal claims or issues. In addition, we may not realize competitive advantages, synergies or other benefits anticipated in connection with any such acquisition or other transaction. If we do not adequately identify targets for, or manage issues related to, our future acquisition and strategic transactions, such transactions may have an adverse effect on our business, operations or financial condition.

We may not be able to effectively protect our intellectual property, which could harm our business and financial condition.

Our ability to remain competitive is dependent, in part, upon our ability to protect our intellectual property rights and prevent other companies from using our intellectual property. We seek to protect our intellectual property rights through a combination of confidentiality and license agreements, and through patent, trademark, copyright and trade secret laws. However, these measures afford only limited protection and may be challenged, invalidated, or circumvented by third parties. Additionally, these measures may not prevent competitors from duplicating our products or gaining access to our proprietary information and technology. Third parties may copy all or portions of our products or otherwise use our intellectual property without authorization, and we may not be able to prevent the unauthorized disclosure or use of our technical knowledge or trade secrets by consultants, vendors, former employees and current employees, despite the existence of nondisclosure and confidentiality agreements and other contractual restrictions, all of which could have an adverse effect on our business, operations, or financial condition.

Third parties may also develop similar or superior technology independently or by designing around our patents. In addition, the laws of some foreign countries do not offer the same level of protection for our intellectual property as the laws of the U.S. Further, no assurances can be given that any patent application we have filed or will file will result in a patent being issued, or that any existing or future patents will afford adequate or meaningful protection against competitors or against similar technologies. All of our patents will eventually expire and some of our patents, including patents protecting significant elements of our technology, will expire within the next several years.

Filing, prosecuting and defending our intellectual property in countries throughout the world may be impractical and prohibitively expensive. Litigation may be necessary in the future to enforce our intellectual property rights, protect our trade secrets or to determine the validity and scope of proprietary rights claimed by others. Any such lawsuits that we might initiate could be expensive, take significant time and divert management's attention from our business. Litigation also puts our patents at risk of being invalidated or interpreted narrowly. Additionally, we may provoke third parties to assert claims against us. Moreover, the legal systems of certain countries, particularly certain developing countries, do not favor the aggressive enforcement of patents and other intellectual property protections, which makes it difficult to stop infringement. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially valuable.

Third parties claiming that we infringe their intellectual property rights could cause us to incur significant legal or licensing expenses and prevent us from selling our products.

Our commercial success will depend in part on not infringing or violating the intellectual property rights of others. From time to time, third parties may claim that we have infringed their intellectual property rights, including claims regarding patents, copyrights, trademarks, and trade secrets. We may not be aware of whether our products do or will infringe existing or future patents or the intellectual property rights of others. Because of constant technological change in the medical device industry in which we compete, the extensive patent coverage of existing technologies, and the rapid rate of issuance of new patents, it is

possible that the number of these claims may grow. In addition, former employers of our former, current, or future employees may assert claims that such employees have improperly disclosed to us the confidential or proprietary information of such former employers. Any such claim, with or without merit, could result in costly litigation, distract management from day-to-day operations and harm our brand or reputation, which in turn could harm our business or results of operations. If we are not successful in defending such claims, we could be required to stop selling, delay shipments of, or redesign, our products, discontinue the use of related trademarks, technologies or designs, pay monetary amounts as damages, enter into royalty or licensing arrangements and satisfy indemnification obligations that we have with some of our customers. Royalty or licensing arrangements that we may seek in such circumstances may not be available to us on commercially reasonable terms or at all and we may not be able to redesign applicable products in a way to avoid infringing the intellectual property rights of others. We have made and expect to continue making significant expenditures to investigate, defend and settle claims related to the use of technology and intellectual property rights as part of our strategy to manage this risk.

The medical device industry is subject to extensive scrutiny and regulation by governmental authorities. Moreover, in October 2016, we received a subpoena from the U.S. Department of Justice seeking information on our marketing and promotional practices. If governmental authorities determine that we have violated laws or regulations, including in respect of our marketing or promotional practices, our company or our employees may be subject to various penalties, including civil or criminal penalties.

Our medical devices and business activities are subject to rigorous regulation by the FDA and other federal, state and foreign governmental authorities. These authorities and domestic and foreign legislators continue to scrutinize the medical device industry. In recent years, the U.S. Congress, Department of Justice, the Office of Inspector General of the Department of Health and Human Services and the Department of Defense, as well as foreign counterparts, have issued subpoenas and other requests for information to medical device manufacturers, primarily related to financial arrangements with healthcare providers, regulatory compliance and product promotional practices. If we fail to comply with applicable regulatory requirements, we may be subjected to a wide variety of sanctions and enforcement actions, including warning letters that require corrective action, injunctions, product seizures or recalls, suspension of product manufacturing, revocation of approvals, exclusion from participation in government healthcare programs, civil fines and criminal penalties.

In October 2016, we received a subpoena from the U.S. Department of Justice seeking information on certain of our marketing and promotional practices. Although we are in the process of responding to the subpoena, we may not be able to resolve this matter, or similar matters that may arise in the future, without our company or employees incurring significant fines, penalties, or other adverse civil or criminal consequences. Even if we are successful in resolving the pending matter without such consequences, we have incurred, and anticipate that we will continue to incur, substantial costs in connection with the matter. The pending matter, or other governmental proceedings, could significantly impact our reputation and divert management's attention and resources from growing our business, which in turn could harm our business, results of operations, financial condition and ability to obtain financing on reasonable terms or at all.

We anticipate that government authorities will continue to scrutinize our industry closely, and that additional regulation by government authorities may increase compliance costs, exposure to litigation and other adverse effects on our operations.

Use of our products in unapproved circumstances could expose us to liabilities.

The marketing clearances and approvals from the FDA and other regulators of certain of our products are, or are expected to be, limited to specific uses. We are prohibited from marketing or promoting any uncleared or unapproved use of our product. However, physicians may use these products in ways or circumstances other than those strictly within the scope of the regulatory approval or clearance. The use of our products for unauthorized purposes could arise from our sales personnel or distributors violating our policies by providing information or recommendations about such unauthorized uses. Consequently, claims may be asserted by the FDA or other enforcement agencies that we are not in compliance with applicable laws or regulations or have improperly promoted our products for uncleared or unapproved uses. The FDA or such other agencies could require a recall of products or allege that our promotional activities misbrand or adulterate our products or violate other legal requirements, which could result in investigations, prosecutions, fines or other civil or criminal actions.

The FDA regulatory clearance process is expensive, time-consuming and uncertain, and the failure to obtain and maintain required regulatory clearances and approvals could prevent us from commercializing our products.

Before we can introduce a new device or a new use of or a claim for a cleared device in the U.S., we must generally obtain clearance from the FDA through the 510(k) premarket notification process or approval through a PMA application, unless an exemption from premarket review or an alternative procedure, such as a *de novo* risk-based classification or a humanitarian

device exemption, applies. The FDA clearance and approval processes for medical devices are expensive, uncertain and time-consuming.

If human clinical trials of a medical device are required for FDA clearance or approval and the device presents a significant risk, the sponsor of the trial must file an IDE application with the FDA prior to commencing such trials in the U.S. Submission of an IDE application does not ensure that the IDE will become effective. If the IDE application is approved, there can be no assurance that the FDA will determine that the data derived from the trials support the safety and effectiveness of the device or warrant the continuation of clinical trials. For clinical trials involving a device that does not present a significant risk, the sponsor is not required to obtain FDA approval of an IDE, but the sponsor must obtain the review and approval of an institutional review board. Both significant risk and non-significant risk trials are subject to additional FDA regulations, including a requirement to obtain informed consent, reporting and recordkeeping requirements, and other requirements. We, the FDA, or the institutional review board, may suspend a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits.

Changes to 510(k) cleared or PMA approved devices, including manufacturing changes, product enhancements and product line extensions, may require a new 510(k) clearance or approval of a PMA supplement. For devices marketed under an approved PMA, we must submit a PMA supplement to the FDA for review and approval prior to making a change to the device that affects the safety or effectiveness of the device, including changes to the design, manufacturing or labeling of the device. Likewise, for 510(k)-cleared devices, we must obtain new FDA 510(k) clearance when there is a major change or modification in the intended use, or a change or modification of the device that could significantly affect the safety or effectiveness of the device. In some cases, clinical data may be required to support a PMA supplement or 510(k) premarket notification for a device modification.

The FDA requires every manufacturer to make the determination regarding the need for a new 510(k) submission or a PMA supplement in the first instance, but the FDA may review the manufacturer’s decisions not to seek a new 510(k) or PMA supplement. We may make changes to our cleared products without seeking additional clearances or approvals if we determine such clearances or approvals are not necessary and document the basis for that conclusion. However, the FDA may disagree with our determination or may require additional information, including clinical data, to be submitted before a determination is made, in which case we may be required to delay the introduction and marketing of our modified products, redesign our products, conduct clinical trials to support any modifications and pay significant regulatory fines or penalties. In addition, the FDA may not approve or clear our products for the indications that are necessary or desirable for successful commercialization.

There is no assurance that we will be able to obtain the necessary regulatory clearances or approvals for any product on a timely basis or at all. Further, 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 cleared products on a timely basis. Delays in receipt of, or failure to obtain, regulatory clearances for any product enhancements or new products we develop would result in delayed or no realization of revenue from such product enhancements or new products and in substantial additional costs, which could decrease our profitability.

In addition, we are required to continue to comply with applicable FDA and other regulatory requirements once we have obtained clearance or approval for a product. We cannot assure that we will successfully maintain the clearances or approvals we have received or may receive in the future. The loss of previously received clearances or approvals, or the failure to comply with existing or future regulatory requirements could also have a material adverse effect on our business.

Our products are generally subject to regulatory requirements in foreign countries in which we sell those products. We will be required to expend significant resources to obtain regulatory approvals or clearances of our products, and there may be delays and uncertainty in obtaining those approvals or clearances.

In order to sell our products in foreign countries, generally we must obtain regulatory approvals and comply with the regulations of those countries. These regulations, including the requirements for approvals or clearances and the time required for regulatory review, vary from country-to-country.

The European Union, or EU, requires that manufacturers of medical devices obtain the right to affix the CE mark, for compliance with the Medical Device Directive (93/42/EEC), as amended, to medical devices before selling them in member countries of the EU. The CE mark is an international symbol of adherence to quality assurance standards and compliance with applicable European medical device directives. In order to obtain the authorization to affix the CE mark to products, a manufacturer must obtain certification that its processes and products meet certain European quality standards.

In April 2017, the EU adopted the MDR to replace the Medical Device Directive (93/42/EEC), as amended. The MDR will apply after a three-year transition period and imposes stricter requirements for the marketing and sale of medical devices and grants Notified Bodies increased post-market surveillance authority.

Complying with and obtaining regulatory approval in foreign countries have caused or may cause us to experience more uncertainty, risk, expense and delay in commercializing products in certain foreign jurisdictions, which could adversely impact our net sales, market share and operating profits from our international operations.

We rely on the proper function, availability and security of information technology systems to operate our business, and a material disruption of critical information systems or a material breach in the security of our systems may adversely affect our business and customer relationships.

We rely on information technology systems (including technology from third party providers) to process, transmit, and store electronic information in our day-to-day operations, including sensitive personal information and proprietary or confidential information. We also rely on our technology infrastructure, among other functions, to interact with customers and suppliers, fulfill orders and bill, collect and make payments, ship products, provide support to customers, fulfill contractual obligations and otherwise conduct business. Our internal information technology systems, as well as those systems maintained by third-party providers, may be subjected to computer viruses or other malicious code, unauthorized access attempts, and cyber-attacks, any of which could result in data leaks or otherwise compromise our confidential or proprietary information and disrupt our operations. Cyber-attacks are becoming more sophisticated and frequent, and there can be no assurance that our protective measures have prevented or will prevent security breaches, any of which could have a significant impact on our business, reputation and financial condition, particularly attacks that result in our intellectual property and other confidential information being accessed or stolen.

We rely on third-party vendors to supply and support certain aspects of our information technology systems. These third-party systems could also become vulnerable to cyber-attacks, malicious intrusions, breakdowns, interference or other significant disruptions, and may contain defects in design or manufacture or other problems that could result in system disruption or compromise the information security of our own systems. In addition, we continue to grow in part through business and product acquisitions and, as a result, may face risks associated with defects and vulnerabilities in the systems operated by the other parties to those transactions, or difficulties or other breakdowns or disruptions in connection with the integration of the acquired businesses and products into our information technology systems.

Cyber-attacks could also result in unauthorized access to our systems and products, including personal information of individuals, which could trigger notification requirements, encourage actions by regulatory bodies, result in adverse publicity, prompt us to offer credit support products or services to affected individuals and lead to class action or other civil litigation. If we fail to monitor, maintain or protect our information technology systems and data integrity effectively or fail to anticipate, plan for or manage significant disruptions to these systems, we could, lose customers, be subject to fraud, breach our agreements with or duties toward customers, physicians, other health care professionals and employees, be subject to regulatory sanctions or penalties, incur expenses or lose revenues, sustain damage to our reputation or suffer other adverse consequences. Unauthorized tampering, adulteration or interference with our products may also create issues with product functionality that could result in a loss of data, risk to patient safety, and product recalls or field actions. Any of these events could have a material adverse effect on our business, operations or financial condition.

Our business is subject to complex and evolving U.S. and international laws and regulations regarding privacy and data protection. Many of these laws and regulations are subject to change and uncertain interpretation and could result in claims, changes to our business practices, penalties, increased cost of operations, or declines in user growth or engagement, or otherwise harm our business.

The U.S. and many other countries in which we conduct our operations have adopted laws and regulations protecting certain data, including medical and personal data, and requiring data holders and controllers to implement administrative, logical and technical controls and procedures in order to protect the privacy of such data. Internationally, some countries have also passed laws and regulations that require individually identifiable data on their citizens to be maintained on local servers and that may restrict transfer or processing of that data. In addition, regulatory authorities around the world are considering a number of additional proposals concerning data protection. These laws and regulations have been, and may continue to be, inconsistent with each other, requiring different approaches in different jurisdictions. In addition, the interpretation and application of medical and personal data protection laws and regulations in the U.S., Europe, China and elsewhere are often uncertain and in flux. Further, we have incurred, and will likely continue to incur, significant expense in connection with our efforts to comply with those laws and regulations. It is possible that these laws and regulations may be interpreted and applied in a manner that is inconsistent with our data practices. These legislative and regulatory proposals, if adopted, and such interpretations could, in addition to the possibility of fines, result in an order requiring that we change our data practices, which could have an adverse effect on our business and

results of operations. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices in a manner adverse to our business.

Recent legal developments in Europe have created compliance uncertainty regarding certain transfers of personal data from the EU to the U.S. and other non-EU jurisdictions. For example, the GDPR, which came into application in the EU on May 25, 2018, applies to our activities conducted from an establishment in the EU or related to products and services that we offer to EU users. The GDPR created a range of new compliance obligations, which could cause us to change our business practices, and significantly increases financial penalties for noncompliance (including possible fines of up to 4% of global annual turnover for the preceding financial year or €20 million (whichever is higher) for the most serious infringements).

The pending exit of the United Kingdom from the European Union, and current uncertainty about when, how or if such exit will occur could harm our business and results of operations in Europe and elsewhere.

On June 23, 2016, the United Kingdom held a referendum in which voters approved an exit from the EU, commonly referred to as "Brexit." As a result of the referendum, negotiations are under way to determine the future terms of the United Kingdom's relationship with the EU, including the terms of trade. As it stands, the United Kingdom is scheduled to depart the EU on March 30, 2019, but the terms of its withdrawal and the nature of its future relationship with the EU are still being decided. Due to stalled negotiations between the United Kingdom and the EU, and political opposition in the United Kingdom, it is possible that Brexit will not occur in March 2019 or at all. Whether or not Brexit occurs, as a result of the disruption in the relationship between the United Kingdom and other EU countries, it is possible that there will be greater restrictions and additional costs on the movement of goods and people between the United Kingdom and the EU countries and increased regulatory complexities, which could affect our ability to sell products in certain EU countries and in the United Kingdom. Currently, all of our European production is in EU countries outside of the United Kingdom. However, during the fiscal year ended December 31, 2018, approximately 2.0% of our world-wide revenues arose from sales into the United Kingdom. Disruptions arising from the exit of the United Kingdom from the EU, or from stalled or failed negotiations between the United Kingdom and the EU, could result in various trade barriers limiting or prohibiting our ability to export or sell our products into the United Kingdom.

In the fiscal year ended in December 31, 2018, approximately 13.0% of our world-wide revenue arose from sales into EU countries, other than the United Kingdom. Brexit could adversely affect the economy of EU countries, which could adversely affect our sales into those countries. In addition, Brexit could also harm worldwide economic and market conditions and could further contribute to instability in global financial and foreign exchange markets, including volatility in the value of the British pound and the Euro, to which we have significant exposure. In addition, other European countries may seek to conduct referenda with respect to continuing membership with the EU. The uncertainties surrounding Brexit, and the possibility that Brexit could result in restrictions on trade and related tariffs between the United Kingdom and the rest of the EU, could result in additional costs, reduced demand, adverse currency fluctuations and otherwise harm our business and operations.

In late 2018 we opened a warehouse and distribution facility in Reading, England, principally in an effort to address the potential impact of Brexit on our ability to market, sell and distribute our products in the United Kingdom. We have incurred, and will continue to incur, substantial expenses in connection with the leasing, improvement and commencement of operations associated with the new Reading facility. In part due to the continued uncertainty regarding the timing and consequences of Brexit, there can be no assurance regarding the effect our Reading facility will have on our business, operations or financial condition.

A significant adverse change in, or failure to comply with, governing regulations could adversely affect our business, operations or financial condition.

We have extensive global operations, which necessitate that we seek various regulatory approvals for our products in the jurisdictions where our products are sold. Different regulatory requirements for product approvals and our need to comply with different regulatory regimes could impact our business.

Substantially all of our products are "devices," as defined in the FDCA, and the manufacture, distribution, record keeping, labeling and advertisement of substantially all of our products are subject to regulation by the FDA in the U.S. and equivalent regulatory agencies in various foreign countries in which our products are manufactured, distributed, labeled, offered or sold. Further, we are subject to regular review and periodic inspections at our facilities with respect to compliance with the FDCA, QSR, ISO standards and similar requirements of foreign countries, which may cover, among others, the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage and shipment of medical devices. Costs to comply with regulations, including, for instance, regulations for medical devices enacted by the EU in May 2017 and effective in 2020, and costs associated with remediation can be significant. Additionally, failure to comply with such requirements, or later discovery of previously unknown problems with our products or our third-party manufacturers' manufacturing processes, including any failure to take satisfactory corrective action in response to an adverse QSR inspection,

could result in total or partial suspension of production or distribution, a regulatory agency's refusal to grant pending or future clearances or approvals for our products, withdrawal or suspension of clearances, approvals, clinical holds, warning letters or untitled letters or refusal to permit the import or export of our products.

The agreements and instruments governing our debt contain restrictions and limitations that could significantly affect our ability to operate our business, as well as significantly affect our liquidity.

We have entered into a Second Amended and Restated Credit Agreement with Wells Fargo Bank, National Association, as administrative agent, swingline lender and a lender, Wells Fargo Securities, LLC, as sole lead arranger and sole bookrunner and the lenders who are or may become party thereto, which was amended on September 28, 2016, March 20, 2017, December 13, 2017 and March 28, 2018. The Second Amended Credit Agreement contains a number of significant covenants that could adversely affect our ability to operate our business, our liquidity or our results of operations. These covenants restrict, among other things, our incurrence of indebtedness, creation of liens or pledges on our assets, mergers or similar combinations or liquidations, asset dispositions, repurchases or redemptions of equity interests or debt, issuances of equity, payment of dividends and certain distributions and entry into related party transactions.

We have pledged substantially all of our assets as collateral for the Second Amended Credit Agreement. Our breach of any covenant in the Second Amended Credit Agreement, not otherwise cured, waived or amended, could result in a default under that agreement and could trigger acceleration of the underlying obligations. Any default under the Second Amended Credit Agreement could adversely affect our ability to service our debt and to fund our planned capital expenditures and ongoing operations. The administrative agent and lenders under the Second Amended Credit Agreement have available to them the remedies typically available to lenders and secured parties, including the ability to foreclose on the collateral we have pledged. It could lead to an acceleration of indebtedness and foreclosure on our assets.

As currently amended, the Second Amended Credit Agreement provides for potential borrowings of up to $447.5 million. Such increased borrowing limits may make it more difficult for us to comply with leverage ratios and other restrictive covenants in the Second Amended Credit Agreement. We may also have less cash available for operations and investments in our business, as we will be required to use additional cash to satisfy the minimum payment obligations associated with this increased indebtedness.

Uncertainty relating to the LIBOR calculation method and potential phasing out of LIBOR after 2021 may adversely affect the interest rates under our Credit Agreement.

Certain of the interest rates applicable to our Second Amended Credit Agreement, and applicable to hedging instruments we have purchased to offset interest rate risk under our Second Amended Credit Agreement, are LIBOR-based. On July 27, 2017, the U.K. Financial Conduct Authority (the "FCA") announced that it will no longer persuade or compel banks to submit rates for the calculation of LIBOR rates after 2021. Actions by the FCA, other regulators or law enforcement agencies may result in changes to the method by which LIBOR is calculated. At this time, it is not possible to predict the effect of any such changes or any other reforms to LIBOR that may be enacted in the United Kingdom or elsewhere. Uncertainty as to the nature of such potential changes may adversely affect the trading market for LIBOR-based securities, including the floating rates applicable to our Second Amended Credit Agreement and related hedges. It is possible that the changes in how LIBOR is calculated, changes in the trading market for LIBOR-based securities or actions of the FCA and other government entities may cause unexpected increases in LIBOR rates or a breakdown in the LIBOR systems. If these issues arise, we could experience increased interest rates or uncertainty with respect to the calculation of interest on our Second Amended Credit Agreement and other instruments, which could harm our operations.

We will be required to expend significant resources for research, development, testing and regulatory approval or clearance of our products under development, and these products may not be developed successfully or approved for commercial use.

Most of our products under development will require significant additional research, development, engineering and, in some cases, preclinical and clinical testing, as well as regulatory approval or clearance and a commitment of significant additional resources prior to their commercialization. It is possible that our products may not:

- be developed successfully;
- be proven safe or effective in clinical trials;
- offer therapeutic or other improvements over current treatments and products;
- meet applicable regulatory standards or receive regulatory approvals or clearances;
- be capable of production in commercial quantities at acceptable costs and in compliance with regulatory requirements;
- be successfully marketed; or
- be covered by private or public insurers.

We are currently conducting one clinical trial in an effort to obtain approval from the FDA that would enable us to expand our efforts to commercialize the QuadraSphere Microspheres. EU regulations do not currently require such applications for these classes of medical device. In order for us to obtain FDA approval to promote the use of QuadraSphere Microspheres for the purposes indicated in our clinical trial, we will need to complete the trial and submit positive clinical data to the FDA. If we cannot enroll study subjects in sufficient numbers to complete the necessary study, if there is a disruption in the supply of materials for the trial or if any other factors preclude us from completing the trial in a timely manner, we will likely not be able to complete the trial. Even if we complete the clinical trial, the FDA may require us to undertake additional testing, or the trial results may not be sufficient to obtain FDA approval for other reasons, including inconclusive or negative results of our trials or those conducted by our competitors or other third parties. Any clinical trials we undertake in the future will likely be subject to these and similar risks. If we do not obtain FDA approval or clearance of the product use studied in a clinical trial, we will not be able to promote the subject product for the indicated treatment of the specific disease or condition in the U.S.

We are subject to laws targeting fraud and abuse in the healthcare industry, the violation of which could adversely affect our business or financial results.

Our operations are subject to various state and federal laws targeting fraud and abuse in the healthcare industry, including the federal Anti-Kickback Statute and other anti-kickback laws, which prohibit 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 or arranging for an item or service, for which payment may be made under federal healthcare programs, such as the Medicare and Medicaid programs. Violations of these fraud and abuse-related laws are punishable by criminal or civil sanctions, including substantial fines, imprisonment and exclusion from participation in healthcare programs such as Medicare and Medicaid, any of which could harm our business or financial results.

We are also subject to the FCPA, the U.K. Bribery Act, and similar anti-bribery laws in non-U.S. jurisdictions. These laws generally prohibit companies and their intermediaries from illegally offering things of value to any individual for the purpose of obtaining or retaining business. As we continue to expand our business activities internationally, compliance with the FCPA and other anti-bribery laws presents greater challenges to our operations. If our employees or agents violate the provisions of the FCPA or other anti-bribery laws, we may incur fines or penalties, which could have a material adverse effect on our operating results or financial condition.

The Affordable Care Act affects, and potentially affects, our business in many ways, and both its existence and repeal (or partial repeal) could have a material adverse effect on our business, operations or financial condition.

The Affordable Care Act was enacted into law in March 2010 and imposes on medical device manufacturers a 2.3% excise tax on U.S. sales of certain medical devices. Although this tax has been suspended until January 1, 2020, during the year ended December 31, 2015 we paid $4.3 million related to this tax. We cannot predict whether the suspension will be continued beyond January 1, 2020. If the excise tax is not repealed or further suspended, it will likely adversely impact our future results of operations. In addition, the costs of compliance with the Affordable Care Act's reporting and disclosure requirements, frequently identified as the Sunshine Act, with regard to payments or other transfers of value made to healthcare providers may have a material, negative impact on our results of operations and our cash flows.

Additionally, the long-term viability of the Affordable Care Act, and its impact on our business and results of operations, remains uncertain. For instance, in December 2017, the U.S. enacted the Tax Cuts and Jobs Act, which, among other things, eliminated the tax penalty for not obtaining health coverage (beginning in 2019). In December 2018, a federal district judge ruled that the Affordable Care Act is unconstitutional (but suspended implementation of such ruling), as a result of the elimination of the tax penalty for not obtaining health coverage. This ruling is subject to appeal. The adoption of Affordable Care Act increased the number of U.S. residents with health insurance and has contributed to an overall increase in medical spending in the U.S. If the Affordable Care Act is repealed as a result of court decision or otherwise, it may reduce the demand for our products in the U.S. On the other hand, the elimination of the Affordable Care Act could result in the elimination of certain costly reporting and disclosure requirements.

Over the long term, any repeal of the Affordable Care Act could increase the likelihood that new medical reform legislation would be adopted. We are uncertain whether any such changes would benefit, or harm, our business and results of operations. Any changes in health care laws in the U.S. could result in additional requirements and costs on our operations and harm our revenue by limiting the number of products sold or the price at which we can sell our products. Uncertainty about the status of health care law also harms our ability to plan for the future and build out our operational and compliance systems.

We are dependent upon key personnel.

Our success is dependent on key management personnel, including Fred P. Lampropoulos, our Chairman of the Board, President and Chief Executive Officer. Mr. Lampropoulos is not subject to any agreement prohibiting his departure, and we do not maintain key man life insurance on his life. The loss of Mr. Lampropoulos, or of certain other key management personnel, could have a materially adverse effect on our business and operations. Our success also depends on, among other factors, the successful recruitment and retention of key operating, manufacturing, sales and other personnel.

Termination or interruption of, or a failure to monitor, our supply relationships and increases in the price of our component parts, finished products, third-party services or raw materials, particularly petroleum-based products, could have an adverse effect on our business, operations or financial condition.

We rely on raw materials, component parts, finished products and third-party services in connection with our business. For example, substantially all of our products are sterilized by only a few different entities. Additionally, many of our products have components that are manufactured using resins, plastics and other petroleum-based materials which are available from a limited number of suppliers. We are experiencing a growing trend among suppliers of polymer resins to refuse to supply resin to the medical device manufacturers or to require such manufacturers to assume additional risks due to the potential for product liability claims. Additionally, there is no assurance that crude oil supplies will be uninterrupted or that petroleum-based manufacturing materials will be available for purchase in the future. Any interruption to the supply of polymers or petroleum-based resins could have an adverse effect on our ability to produce, or on the cost to produce, our products.

The availability and price of these materials, parts, products and services are affected by a variety of factors beyond our control, including the willingness of suppliers to sell into the medical device industry, changes in supply and demand, general economic conditions, labor costs, fuel-related transportation costs, liability concerns, competition, import duties, tariffs, currency exchange rates and political uncertainty around the world. Our suppliers may pass some of their cost increases on to us, and if such increased costs are sustained or increase further, our suppliers may pass further cost increases on to us. In addition to the effect on resin prices, transportation costs generally increase based on the effect of higher crude oil prices, and these increased transportation costs may be passed on to us.

We are also subject to corporate social responsibility, or CSR, laws and regulations which require us to monitor the labor standards in our supply chain, including the California Transparency in Supply Chains Act, the UK Modern Slavery Act, and U.S. Federal Acquisition Regulations regarding Combating Trafficking in Persons. These CSR labor laws and regulations may impose additional processes and supplier management systems and have led certain key customers to impose additional requirements on medical device companies, including audits, as a prerequisite to selling products to such customers, which could result in increased costs for our products, the termination or suspension of certain suppliers, and reductions in our margins and profitability.

Our ability to recover such increased costs may depend upon our ability to raise prices on our products. Due to the highly competitive nature of the healthcare industry and the cost-containment efforts of our customers and third-party payers, we may be unable to pass along cost increases through higher prices. If we are unable to fully recover these costs through price increases or offset these increases through cost reductions, or we experience terminations or interruption of our relationships with our suppliers, we could experience lower margins and profitability, and our results of operations, financial condition and cash flows could be materially harmed.

Our products may be subject to product liability claims and warranty claims.

Our products are used in connection with invasive procedures and in other medical contexts that entail an inherent risk of product liability claims. If medical personnel or their patients suffer injury or death in connection with the use of our products, whether as a result of a failure of our products to function as designed, an inappropriate design, inadequate disclosure of product-related risks or information, improper use, or for any other reason, we could be subject to lawsuits seeking significant compensatory and punitive damages. Product liability claims may be brought by individuals or by groups seeking to represent a class. We have previously faced claims by patients claiming injuries from our products. To date, these claims have not resulted in material harm to our operations or financial condition. The outcome of this type of personal injury litigation is difficult to assess or quantify. We maintain product liability insurance; however, there is no assurance that this coverage will be sufficient to satisfy any claim made against us. Moreover, any product liability claim brought against us could result in significant costs, divert our management’s attention from other business matters or operations, increase our product liability insurance rates, or prevent us from securing insurance coverage in the future. As a result, any lawsuit seeking significant monetary damages may have a material adverse effect on our business, operations or financial condition.

We generally offer a limited warranty for the return of product due to defects in quality and workmanship. We attempt to estimate our potential liability for future product returns and establish reserves on our financial statements in amounts that we believe will be sufficient to address our warranty obligations; however, our actual liability for product returns may significantly

exceed the amount of our reserves. If we underestimate our potential liability for future product returns, or if unanticipated events result in returns that exceed our historical experience, our financial condition and operating results could be materially harmed.

In addition, the occurrence of such an event or claim could result in a recall of products from the market or a safety alert relating to such products. Such a recall could result in significant costs, reduce our revenue, divert management's attention from our business, and harm our reputation.

Our products may cause or contribute to adverse medical events that we are required to report to the FDA or other governmental authorities, and if we fail to do so, we may be subject to sanctions that may materially harm our business.

Our products are subject to medical device reporting regulations, which require us to report to the FDA information that reasonably suggests one of our products may have caused or contributed to a death or serious injury, or one of our products malfunctioned and, if the malfunction were to recur, this device or a similar device that we market would be likely to cause or contribute to a death or serious injury. Our obligation to report under the medical device reporting regulations is triggered on the date on which we become aware of information that reasonably suggests a reportable adverse event occurred. We may fail to report adverse events of which we become aware within the prescribed timeframe. We may also fail to recognize that we have become aware of a reportable adverse event, especially if it is not reported to us as an adverse event or if it is an adverse event that is unexpected or if the product characteristic that caused the adverse event is removed in time from our products. If we fail to comply with our medical device reporting obligations, the FDA could issue warning letters or untitled letters, take administrative actions, commence criminal prosecution, impose civil monetary penalties, demand or initiate a product recall, seize our products, or delay the clearance of our future products.

We lack direct sales and marketing capabilities in many countries, and are dependent on our distributors for the commercialization of our products in these countries. If we are unable to maintain or establish sales capabilities on our own or through third parties, we may not be able to commercialize any of our products in those countries.

We have no or limited direct sales or marketing capabilities in some of the regions and countries in which our products are sold, including, among others, China, Japan, Russia and India. We have entered into distribution agreements with third parties to market and sell our products in those countries in which we do not have a direct sales force and in those countries in which we utilize a "modified direct" sales approach. If we are unable to maintain or enter into such distribution arrangements on acceptable terms, or at all, we may not be able to successfully commercialize our products in certain countries. Moreover, to the extent that we enter into distribution arrangements with other companies, our revenues, if any, will depend on the terms of any such arrangements and the efforts of others. These efforts may turn out not to be sufficient and our third-party distributors may not effectively sell our products. In addition, although our contract terms require our distributors to comply with all applicable laws regarding the sale of our products, including anti-competition, anti-corruption, anti-money laundering and sanctions laws, we may not be able to ensure proper compliance. If our distributors fail to effectively market and sell our products in full compliance with applicable laws, our results of operations and business could be impacted.

Our employees, independent contractors, consultants, manufacturers and distributors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, manufacturers and distributors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or disclosure of unauthorized activities to us that violates healthcare laws and regulations of the FDA and other federal, state and international authorities, manufacturing standards, and laws that require the true, complete and accurate reporting of financial information or data. We have adopted a code of business conduct and ethics, and a global anti-corruption policy, but it is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties.

The size of the market for our product groups has not been established with precision and may be smaller than we estimate.

Our estimates of the annual total addressable market for our cardiac intervention, peripheral intervention, interventional oncology and spine, and cardiovascular and critical care and endoscopy product groups are based on a number of internal and third-party estimates, including published industry data. While we believe these factors have historically provided and may continue to provide us with effective tools in estimating the total market for our products, these estimates may not be correct and the conditions supporting our estimates may change at any time, thereby reducing the predictive accuracy of the underlying factors

we consider in our analysis. As a result, our estimates of the annual total addressable market for our products may prove to be incorrect. If the actual number of patients who would benefit from our products and the annual total addressable market for our products is smaller than we have estimated, our sales growth may be impaired and our business adversely impacted. Even if the markets are as large as projected, there is no assurance that our market share or aggregate sales will increase as a result of the size of addressable markets.

Consolidation in the healthcare industry, group purchasing organizations or public procurement policies could lead to demands for price concessions, which may harm our ability to sell our products at prices necessary to support our current business strategies.

Healthcare costs have risen significantly over the past decade, which has resulted in or led to numerous cost reform initiatives by legislators, regulators and third-party payers. Cost reform has triggered a consolidation trend in the healthcare industry to aggregate purchasing power, which may create more requests for pricing concessions in the future. Additionally, group purchasing organizations, independent delivery networks, public procurement policies and large single accounts may continue to use their market power to consolidate purchasing decisions for hospitals and healthcare service providers. We expect that market demand, government regulation, third-party coverage and reimbursement policies and societal pressures will continue to change the healthcare industry worldwide, resulting in further business consolidations and alliances among our customers, which may exert further downward pressure on the prices of our products.

We may be unable to compete in our markets, particularly if there is a significant change in relevant practices or technology.

The markets in which our products compete are highly competitive. We face competition from many companies which are larger, better established, have greater financial, technical and other resources and possess a greater market presence than we do. Such resources and market presence may enable our competitors to more effectively market competing products or to market competing products at reduced prices in order to gain market share.

In addition, our ability to compete successfully is dependent, in part, upon our response to changes in technology and upon our efforts to develop and market new products which achieve significant market acceptance. Competing companies with substantially greater resources than us are actively engaged in research and development of new methods, treatments, drugs, and procedures to treat or prevent cardiovascular disease that could limit the market for our products and eventually make some of our products obsolete. A reduction in the demand for a significant number of our products, or a few key products, could have a material adverse effect on our business, operations or financial condition.

Fluctuations in foreign currency exchange rates may negatively impact our financial results.

As our operations have grown outside the U.S., we have also become increasingly subject to market risk relating to foreign currency. Those fluctuations could have a negative impact on our margins and financial results. During 2018, 2017 and 2016, the exchange rate between all applicable foreign currencies and the U.S. Dollar resulted in an increase in net sales of approximately $5.2 million, an increase of approximately $0.6 million and a decrease of approximately $4.9 million, respectively.

For the year ended December 31, 2018, approximately $284.8 million, or 32.3%, of our net sales were denominated in foreign currencies, with our Euro-denominated sales representing our largest single currency risk. If the rate of exchange between foreign currencies declines against the U.S. Dollar, we may not be able to increase the prices we charge our customers for products whose prices are denominated in those respective foreign currencies. Furthermore, we may be unable or elect not to enter into hedging transactions which could mitigate the effect of declining exchange rates. As a result, if the rate of exchange between foreign currencies declines against the U.S. Dollar, our financial results may be negatively impacted.

We may be unable to accurately forecast customer demand for our products and manage our inventory.

To ensure adequate supply, we must forecast our inventory needs and place orders with our suppliers based on estimates of future demand for particular products. Our ability to accurately forecast demand for our products could be negatively affected by many factors, including our failure to accurately manage our expansion strategy and customer acceptance of new products, product introductions by our competitors, an increase or decrease in customer demand for our products or for products of our competitors, unanticipated changes in general market conditions or regulatory matters and weakening of economic conditions or consumer confidence in future economic conditions. Inventory levels in excess of customer demand may result in inventory write-downs or write-offs, which would impact our gross margin. Conversely, if we underestimate customer demand for our products, our manufacturing facilities may not be able to deliver products to meet our order requirements, which could damage our reputation and customer relationships.

Our forecasts of customer demand and related decisions that we make about production levels may take into account potential opportunities created by regulatory issues, supply disruptions or other challenges experienced by our competitors. We generally do not know the extent and cannot predict the duration of these challenges experienced by our competitors. As a result, our estimates about related increased demand for our products are inherently uncertain and subject to change. If our estimates incorrectly forecast the extent or duration of this increased demand, or the product types to which it relates, our revenues, margins and earnings could be adversely affected.

International and national economic and industry conditions constantly change, and could harm our business and results of operations.

Our business and our results of operation are affected by many changing economic, industry and other conditions beyond our control, including, for instance, potential changes to the economic relationship between the U.S. and Mexico, China, and other countries in which we operate as a result of the current U.S. administration, and other changes and developments that we cannot anticipate, each of which could harm our business and results of operations. Actual or potential changes in international, national, regional and local economic, business and financial conditions, including recession, inflation and trade protection measures, may negatively affect consumer preferences, perceptions, spending patterns or demographic trends, any of which could harm our business or results of operations. Our customers may experience financial difficulties or be unable to borrow money to fund their operations, which may harm their ability or decision to purchase or pay for our products. Disruptions in the credit markets have previously resulted, and could again result, in volatility, decreased liquidity, widening of credit spreads, and reduced availability of financing. There can be no assurance that future financing will be available to our customers on acceptable terms, if at all. An inability of our customers to obtain financing necessary to purchase our products could harm our business and results of operations.

Changes in general economic conditions, geopolitical conditions, U.S. trade policies and other factors beyond our control may adversely impact our business and operating results.

Our operations and performance depend significantly on global, regional and U.S. economic and geopolitical conditions. During, and following, the U.S. presidential election in 2016, there has been discussion and dialogue regarding potential significant changes to U.S. trade policies, legislation, treaties and tariffs, including the North American Free Trade Agreement (“NAFTA”) as well as trade policies and tariffs affecting China. At this time, it is unknown whether and to what extent new legislation will be passed into law, pending or new regulatory proposals will be adopted, international trade agreements will be negotiated, or the effect that any such action would have, either positively or negatively, on our industry or our Company. If any new legislation and/or regulations are implemented, or if existing trade agreements are renegotiated, it may be inefficient and expensive for us to alter our business operations in order to adapt to or comply with such changes. Such operational changes could have a material adverse effect on our business, financial condition, results of operations or cash flows.

In addition to changes in U.S. trade policy, a number of other economic and geopolitical factors both in the U.S. and abroad could have a material adverse effect on our business, financial condition, results of operations or cash flows, which could ultimately result in:

- a global or regional economic slowdown in any of our market segments;
- postponement of spending, in response to tighter credit, financial market volatility and other factors;
- effects of significant changes in economic, monetary and fiscal policies in the U.S. and abroad including significant income tax changes, currency fluctuations and inflationary pressures;
- rapid material escalation of the cost of regulatory compliance and litigation;
- changes in government policies and regulations affecting the Company or its significant customers;
- industrial policies in various countries that favor domestic industries over multinationals or that restrict foreign companies altogether;
- difficulties protecting intellectual property;
- longer payment cycles;
- credit risks and other challenges in collecting accounts receivable; and
- the impact of each of the foregoing on outsourcing and procurement arrangements.

In addition, any changes in U.S. trade policy could trigger retaliatory actions by affected countries, such as China, resulting in a “trade war.” A trade war could result in increased costs for raw materials we use in our manufacturing and could result in foreign governments imposing tariffs on products that we export outside the U.S. or otherwise limiting our ability to sell our products abroad. These events could result in increased costs, lower margins and lower demand than we have assumed in our projected financial results, which could have a material adverse effect on our business, financial condition, results of operations, or cash flows.

We are subject to export control laws, customs laws, sanctions laws and other laws governing our operations in the U.S. and other countries. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures and legal expenses, which could adversely affect our business, results of operations and financial condition.

Our global operations expose us to trade and economic sanctions and other restrictions imposed by the U.S., the EU and other governments and organizations. The U.S. Departments of Justice, Commerce, State and Treasury and other federal agencies and authorities have a broad range of civil and criminal penalties they may seek to impose against corporations and individuals for violations of economic sanctions laws, export control laws, and other federal statutes and regulations, including those established by the Office of Foreign Assets Control. Under these laws and regulations, as well as other export control laws, customs laws, sanctions laws and other laws governing our operations, various government agencies may require export licenses, may seek to impose modifications to business practices, including cessation of business activities in sanctioned countries or with sanctioned persons or entities and modifications to compliance programs, which may increase compliance costs, and may subject us to fines, penalties and other sanctions. A violation of these laws or regulations could adversely impact our business, results of operations and financial condition.

We depend on generating sufficient cash flow to fund our debt obligations, capital expenditures, and ongoing operations.

We are dependent on our cash on hand and free cash flow to fund our debt obligations, capital expenditures and ongoing operations. Our ability to service our debt and to fund our planned capital expenditures and ongoing operations will depend on our ability to continue to generate cash flow. If we are unable to generate sufficient cash flow or we are unable to access additional liquidity sources, we may not be able to service or repay our debt, operate our business, respond to competitive challenges, or fund our other liquidity and capital needs.

A significant portion of our revenues is derived from a few products and medical procedures.

A significant portion of our revenues is attributable to sales of our inflation devices. During the year ended December 31, 2018, sales of our inflation devices (including our Big60® device sold within our endoscopy segment and kits and packs which include inflation devices, but also include other products) accounted for approximately 10.8% of our net sales. Any material decline in market demand, or change in OEM supplier preference, for our inflation devices could have an adverse effect on our business, operations or financial condition.

In addition, the products that have accounted for a majority of our historical revenues are designed for use in connection with a few related medical procedures, including angioplasty, stent placement procedures, and spinal procedures. If subsequent developments in medical technology or drug therapy make such procedures obsolete, or alter the methodology of such procedures so as to eliminate the usefulness of our products, we may experience a material decrease in demand for our products and experience deteriorating financial performance.

We are subject to work stoppage, transportation, severe weather, natural disasters and related risks.

We manufacture products at various locations in the U.S. and foreign countries and sell our products worldwide. We depend on third-party transportation companies to deliver supplies necessary to manufacture our products from vendors to our various facilities and to move our products to customers, operating divisions, and other subsidiaries located worldwide. Our manufacturing operations, and the operations of the transportation companies on which we depend, may be harmed by natural disasters or significant human events, such as a war, civil unrest, terrorist attack, riot, strike, slowdown, or similar events. Any disruption in our manufacturing or transportation could materially harm our ability to meet customer demands or our operations.

Furthermore, our manufacturing operations could be affected by many other factors beyond our control, including severe weather conditions and natural disasters, including hurricanes, earthquakes and tornadoes. These conditions could cause substantial damage to our facilities, interrupt our production and disrupt our ability to deliver products to our customers.

Fluctuations in our effective tax rate may adversely affect our business, financial condition or results of operation.

We are subject to taxation in numerous countries, states and other jurisdictions. Our effective tax rate is derived from a combination of applicable tax rates in the various countries, states and other jurisdictions in which we operate. In preparing our financial statements, we estimate the amount of tax that will become payable in each of these jurisdictions. Our effective tax rate may, however, differ from the estimated amount due to numerous factors, including a change in the mix of our profitability from country to country and changes in tax laws. Relevant authorities may also disagree with tax positions we have taken and assess further taxes. On December 22, 2017, the U.S. government enacted comprehensive federal tax legislation commonly referred to as the Tax Cuts and Jobs Act of 2017, or TCJA. The TCJA makes changes to the corporate tax rate, business-related deductions

and taxation of foreign earnings, among others, that will generally be effective for taxable years beginning after December 31, 2017. These changes could have a material impact on the value of our U.S. deferred tax assets, result in significant one-time charges in the current or future taxable years and increase our future U.S. tax expense. We continue to evaluate the TCJA and its requirements, as well as its application to our business and its impact on our effective tax rate. At this stage, it is unclear how many U.S. states will incorporate these federal law changes, or portions thereof, into their tax codes. The implementation by us of new practices and processes designed to comply with, and benefit from, the TCJA and its rules and regulations could require us to make substantial changes to our business practices, allocate additional resources, and increase our costs, which could negatively affect our business, results of operations and financial condition. In addition, further changes in the tax laws of foreign jurisdictions could arise, including as a result of recommendations issued by the Organisation for Economic Cooperation and Development, or the OECD, which could, if implemented, result in substantial changes to numerous long-standing tax positions and principles. These contemplated changes, to the extent adopted by OECD members or other countries, could increase tax uncertainty and may adversely affect our provision for income taxes. Any of these factors could cause us to experience an effective tax rate significantly different from previous periods or our current expectations, which could have an adverse effect on our business, financial condition or results of operation.

Limits on reimbursement imposed by governmental and other programs may adversely affect our business and results of operation.

We sell our products to hospitals and other healthcare providers around the world that typically receive reimbursement for the services provided to patients from third-party payers such as government programs (e.g., Medicare and Medicaid in the U.S.) and private insurance programs. The ability of our customers to obtain appropriate reimbursement for the cost of our products from governmental and private third-party payers is critical to our business. Limits on reimbursement imposed by such programs may adversely affect the ability of hospitals and others to purchase our products, which could adversely affect our business and results of operations.

Third-party payers, whether foreign or domestic, or governmental or commercial, are developing increasingly sophisticated methods of controlling healthcare costs. In general, a third-party payer covers a medical procedure only when the plan administrator is satisfied that the product or procedure is reasonable and necessary to the patient's treatment; however, the cost-effectiveness of the treatment may also be a condition. In addition, in the U.S., no uniform policy of coverage and reimbursement for procedures using our products exists among third-party payers. Therefore, coverage and reimbursement for procedures using our products can differ significantly from payer to payer. In addition, payers continually review new and existing technologies for possible coverage and can, without notice, deny or reverse coverage or alter pre-authorization requirements for new or existing products and procedures. We cannot provide assurance that we will be successful in any efforts we may potentially undertake to reverse such non-coverage decisions. If we are not successful in reversing non-coverage policies, or if third-party payers that currently cover or reimburse certain procedures reverse or limit their coverage of such procedures in the future, or if other third-party payers issue similar policies, our business could be adversely impacted.

Further, we believe that future coverage and reimbursement may be subject to increased restrictions, such as additional preauthorization requirements, both in the U.S. and in international markets. Third-party coverage and reimbursement for procedures using our products or any of our products in development for which we may receive regulatory approval may not be available or adequate in either the U.S. or international markets, which could have an adverse impact on our business.

Our failure to comply with applicable environmental laws and regulations could affect our business, operations or financial condition.

We manufacture and assemble certain products that require the use of hazardous materials that are subject to various national, federal, state and local laws and regulations governing the protection of the environment, health and safety. While the cost of compliance with such laws and regulations has not had a material adverse effect on our results of operations historically, compliance with future regulations may require additional capital investments. Additionally, because we use hazardous and other regulated materials in our manufacturing processes, we are subject to certain risks of future liabilities, lawsuits and claims resulting from any substances we manufacture, dispose of or release. Any accidental release may have an adverse effect on our business, operations or financial condition. We cannot predict what additional environmental, health and safety legislation or regulations will be enacted or become effective in the future or how existing or future laws or regulations will be administered or interpreted with respect to our operations, capital expenditures, results of operations or competitive position. Compliance with more stringent laws or regulations or adverse changes in the interpretation of existing laws or regulations by government agencies could have a material adverse effect on our business, operations or financial condition, and could require substantial expenditures.

The market price of our common stock has been, and may continue to be, volatile.

The market price of our common stock has at times been, and may in the future be, volatile for various reasons, including those discussed in these risk factors. Other events that could cause volatility in our stock, include without limitation, variances in our financial results; analysts' and other projections or recommendations regarding our common stock specifically or medical technology stocks generally; any restatement of our financial statements or any investigation of us by the SEC, the FDA, or another regulatory authority; or a decline, or rise, of stock prices in capital markets generally.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our world headquarters is located in South Jordan, Utah, with our principal office for European operations located in Galway, Ireland. We also support our European operations from a distribution and customer service facility located in Maastricht, the Netherlands. In addition, we lease commercial space in Bangalore, India; Beijing, Hong Kong, GuangZhou and Shanghai, China; Buccinasco, Italy; Dubai, UAE; Melbourne, Australia; Moscow, Russia; Toronto, Canada; Rockland, Massachusetts; São Paulo, Brazil; Selangor, Malaysia; Seoul, Republic of Korea; Tokyo, Japan; Johannesburg, South Africa; Reading, United Kingdom; Ho Chi Minh City, Vietnam, Taipei, Taiwan; Auckland, New Zealand; Jakarta, Indonesia; Jackson Township, New Jersey; Carrolton, Texas; and Versailles, France. Our principal manufacturing and packaging facilities are located in Chester, Virginia; Galway, Ireland; Joinville, Brazil; Malvern, Pennsylvania; Melbourne, Australia; Paris, France; Pearland, Texas; Singapore; South Jordan and West Jordan, Utah; Tijuana, Mexico; and Venlo, The Netherlands. Our research and development activities are conducted principally at facilities located in South Jordan and West Jordan, Utah; Pearland and Dallas, Texas; Malvern, Pennsylvania; Jackson Township, New Jersey; San Jose, California; Galway, Ireland; Paris, France; Singapore; and Venlo, The Netherlands.

The following is a summary of the approximate square footage of our facilities as of December 31, 2018:

	Owned	Leased	Total
U.S.	552,207	499,074	1,051,281
International	344,181	456,957	801,138
Total	896,388	956,031	1,852,419

Operations associated with our cardiology segments utilize all of our facilities, while operations associated with our endoscopy segment are conducted primarily from our facilities located in South Jordan, Utah and Pearland and Dallas, Texas.

We are currently constructing an additional manufacturing facility at our South Jordan, Utah, headquarters, totaling approximately 136,000 square feet and anticipate construction of the facility will be completed in February 2020.

In addition to routine leases, during 2018 we entered into leases for properties in Johannesburg, South Africa, and Reading, United Kingdom, for customer service offices and distribution warehouses in each location.

We believe our existing and proposed facilities will generally be adequate for our present and future anticipated levels of operations.

Item 3. Legal Proceedings.

In the ordinary course of business, we are involved in various claims and litigation matters. These claims and litigation matters may include actions involving product liability, intellectual property, contract disputes, and employment or other matters that are significant to our business. Based upon our review of currently available information, we do not believe that any such actions are likely to be, individually or in the aggregate, materially adverse to our business, financial condition, results of operations or liquidity.

In addition to the foregoing matters, in October 2016, we received a subpoena from the U.S. Department of Justice seeking information on certain of our marketing and promotional practices. We are in the process of responding to the subpoena, which we anticipate will continue during 2019. We have incurred, and anticipate that we will continue to incur, substantial costs in connection with the matter. The investigation is ongoing and at this stage we are unable to predict its scope, duration or outcome. Investigations such as this may result in the imposition of, among other things, significant damages, injunctions, fines, civil or criminal claims or penalties against our company or individuals.

It is possible that the ultimate resolution of any of the foregoing matters, or other matters, if resolved in a manner unfavorable to us, may be materially adverse to our business, financial condition, results of operations or liquidity. Legal costs for these matters, such as outside counsel fees and expenses, are charged to expense in the period incurred.

Item 4. Mine Safety Disclosures.

The disclosure required by this item is not applicable.

PART II

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

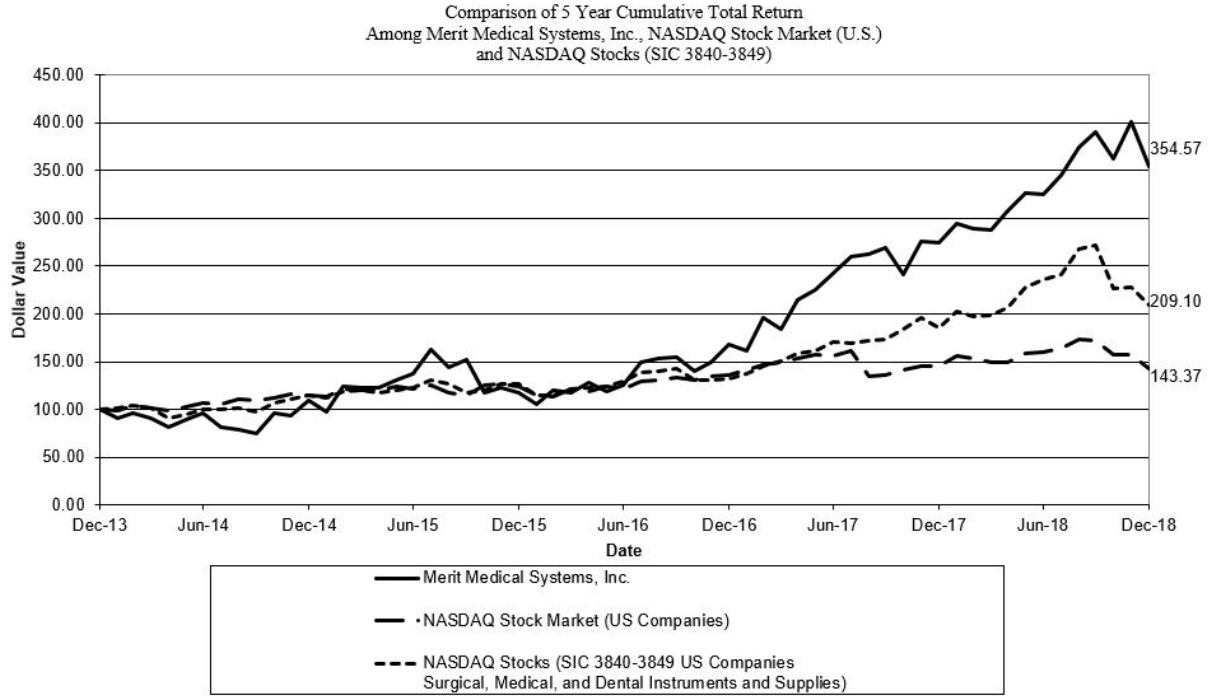
Market Price for the Common Stock

Our common stock is traded on the NASDAQ Global Select Market under the symbol "MMSI."

As of February 26, 2019, the number of shares of our common stock outstanding was 54,902,835, held by approximately 105 shareholders of record, not including shareholders whose shares are held in securities position listings.

Performance

The following graph compares the performance of our common stock with the performance of the NASDAQ Stock Market (U.S. Companies) and NASDAQ Stocks (SIC 3840-3849 U.S. Companies - Surgical, Medical and Dental Instruments and Supplies) for a five-year period by measuring the changes in common stock prices from December 31, 2013 to December 31, 2018.



	12/2013	12/2014	12/2015	12/2016	12/2017	12/2018
Merit Medical Systems, Inc.	$ 100	$ 110	$ 118	$ 168	$ 274	$ 355
NASDAQ Stock Market (U.S. Companies)	100	115	124	136	146	143
NASDAQ Stocks (SIC 3840-3849 U.S. Companies)	100	114	127	132	185	209

The stock performance graph assumes for comparison that the value of our common stock and of each index was $100 on December 31, 2013 and that all dividends were reinvested. Past performance is not necessarily an indicator of future results.

NOTE: Performance graph data is complete through last fiscal year. Performance graph with peer group uses peer group only performance (excludes only Merit). Peer group indices use beginning of period market capitalization weighting. Index Data: Calculated (or Derived) based from CRSP NASDAQ Stock Market (US Companies), Center for Research in Security Prices (CRSP®), Graduate School of Business, The University of Chicago. Copyright 2019. Used with permission. All rights reserved.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table contains information regarding our equity compensation plans as of December 31, 2018 (in thousands, except weighted-average price):

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation Plans approved by security holders	3,507 (1),(3)	$ 26.30	3,005 (2),(3)

(1) Consists of 3,306,660 shares of common stock subject to the options granted under the Merit Medical Systems, Inc. 2006 Long-Term Incentive Plan and 200,000 shares of common stock subject to the options granted under the Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan.

(2) Consists of 105,207 shares available to be issued under the 1996 Merit Medical Systems, Inc. Non-Qualified Employee Stock Purchase Plan and 2,900,000 shares available to be issued under the Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan.

(3) See Note 12 to our consolidated financial statements set forth in Item 8 of this report for additional information regarding these plans.

Item 6. Selected Financial Data (in thousands, except per share amounts).

	2018	2017	2016	2015	2014
OPERATING DATA:					
Net Sales	$ 882,753	$ 727,852	$ 603,838	$ 542,149	$ 509,689
Cost of Sales	487,983	401,599	338,813	306,368	284,467
Gross Profit	394,770	326,253	265,025	235,781	225,222
Operating Expenses:					
Selling, general, and administrative	276,018	229,134	184,398	156,348	147,894
Research and development	59,532	51,403	45,229	40,810	36,632
Intangible asset impairment charge	657	809	—	—	1,102
Contingent consideration expense (benefit)	(698)	(298)	61	80	(572)
Acquired in-process research and development	644	12,136	461	1,000	—
Total operating expenses	336,153	293,184	230,149	198,238	185,056
Income from Operations	58,617	33,069	34,876	37,543	40,166
Other Income (Expense):					
Interest income	1,199	381	81	272	217
Interest expense	(10,360)	(7,736)	(8,798)	(6,229)	(8,829)
Gain on bargain purchase	—	11,039	—	—	—
Other income (expense)	63	(872)	(773)	(386)	18
Other income (expense)—net	(9,098)	2,812	(9,490)	(6,343)	(8,594)
Income Before Income Taxes	49,519	35,881	25,386	31,200	31,572
Income Tax Expense	7,502	8,358	5,265	7,398	8,598
Net Income	$ 42,017	$ 27,523	$ 20,121	$ 23,802	$ 22,974
Earnings Per Common Share:					
Diluted	$ 0.78	$ 0.55	$ 0.45	$ 0.53	$ 0.53
Average Common Shares:					
Diluted	53,931	50,101	44,862	44,511	43,409
BALANCE SHEET DATA:					
Working capital	$ 254,491	$ 200,501	$ 155,092	$ 116,093	$ 116,910
Total assets	1,620,012	1,111,811	942,803	778,728	747,165
Long-term debt, less current portion	373,152	259,013	314,373	197,593	214,490
Stockholders' equity	932,775	676,334	498,189	466,103	435,259

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the Consolidated Financial Statements and related Notes thereto, which are included in Item 8 of this report.

Overview

We design, develop, manufacture and market medical products for interventional and diagnostic procedures. For financial reporting purposes, we report our operations in two operating segments: cardiovascular and endoscopy. Our cardiovascular segment consists of cardiology and radiology devices, which assist in diagnosing and treating coronary arterial disease, peripheral vascular disease and other non-vascular diseases and includes embolotherapeutic, cardiac rhythm management, electrophysiology, critical care, Cianna Medical and interventional oncology and spine devices. Our endoscopy segment consists of gastroenterology and pulmonology devices which assist in the palliative treatment of expanding esophageal, tracheobronchial and biliary strictures caused by malignant tumors. Within those two operating segments, we offer products focused in six core product groups: peripheral intervention, cardiac intervention, interventional oncology and spine, cardiovascular and critical care, breast cancer localization and guidance and endoscopy.

For the year ended December 31, 2018, we reported sales of approximately $882.8 million, up approximately $154.9 million or 21.3%, over 2017 sales of approximately $727.9 million.

Gross profit as a percentage of sales decreased to 44.7% for the year ended December 31, 2018 as compared to 44.8% for the year ended December 31, 2017.

Net income for the year ended December 31, 2018 was approximately $42.0 million, or $0.78 per share, as compared to $27.5 million, or $0.55 per share, for the year ended December 31, 2017.

We continue to focus our efforts on expanding our presence in foreign markets, particularly Europe, Middle East and Africa ("EMEA"), China, Southeast Asia, Japan, Australia and Brazil, in an effort to expand our market opportunities. These efforts have increased our selling, general and administrative expenses, but we believe over time they will help us improve our profitability. Our international sales growth was strong for the year ended December 31, 2018. In 2018, international sales were approximately $386.3 million, or 44% of our net sales, up 26% from international sales of $307.1 million in 2017.

We believe our forecasted growth will be facilitated by recently introduced products such as the EmboCube™ Embolization Gelatin, the basixTAU™ Inflation Device, the Prelude Prestige™ Splittable Sheath Introducer, the Prelude Ideal™ Sheath Introducer, and the PreludeSYNC™ Radial Compression Device, among others.

We recently opened a new distribution center in Reading, England in an effort to address potential Brexit disruption, as well as a direct sales and distribution center in Johannesburg, South Africa. We believe the ability to provide essentially same-day service to our customers in those regions will enhance customer confidence and increase our growth prospects.

Results of Operations

The following table sets forth certain operational data as a percentage of sales for the years indicated:

	2018	2017	2016
Net sales	100%	100%	100%
Gross profit	44.7	44.8	43.9
Selling, general and administrative expenses	31.3	31.5	30.5
Research and development expenses	6.7	7.1	7.5
Intangible asset impairment charges	0.1	0.1	—
Contingent consideration expense (benefit)	(0.1)	—	—
Acquired in-process research and development expenses	0.1	1.7	0.1
Income from operations	6.6	4.5	5.8
Income before income taxes	5.6	4.9	4.2
Net income	4.8	3.8	3.3

Listed below are the sales by product category within each operating segment for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	% Change	2018	% Change	2017	% Change	2016
Cardiovascular						
Stand-alone devices	31%	$ 361,613	44%	$ 275,456	23%	$ 191,127
Cianna Medical	n/a	6,292	—%	—	—%	—
Custom kits and procedure trays	7%	134,756	6%	126,089	2%	119,247
Inflation devices	16%	92,419	8%	79,875	1%	73,916
Catheters	22%	155,525	13%	127,747	17%	113,367
Embolization devices	1%	50,038	8%	49,532	2%	46,035
CRM/EP	17%	48,834	15%	41,914	8%	36,459
Total	21%	849,477	21%	700,613	11%	580,151
Endoscopy						
Endoscopy devices	22%	33,276	15%	27,239	12%	23,687
Total	21%	$ 882,753	21%	$ 727,852	11%	$ 603,838

Note: Certain product categories for 2017 and 2016 have been adjusted from prior disclosure to reflect changes in product classifications to be consistent with updates in the management of our product portfolios in 2018. Also note that Cianna Medical is a new category in 2018 as a result of the acquisition in November 2018 (see Note 3).

Cardiovascular Sales. Our cardiovascular sales for the year ended December 31, 2018 were approximately $849.5 million, up 21.2%, when compared to the corresponding period for 2017 of approximately $700.6 million. Sales for the year ended December 31, 2018 were favorably affected by increased sales of (a) our stand-alone devices (particularly our Map™ Merit Angioplasty Packs, PreludeSYNC™, guide wires, and Merit Laureate® Hydrophilic Guide Wire products, as well as sales from our acquisitions of the BD and Argon critical care division product lines, among others) of approximately $86.2 million, up 31.3%; (b) catheters (particularly our Prelude® Radial Introducer Sheath product line, our Merit Maestro® Microcatheters and our new Prelude Ideal™) of approximately $27.8 million, up 21.7%; and (c) our inflation devices (particularly our BASIXTouch™ and BasixCompak™ product lines and inflation kits sold through our OEM relationships) of approximately $12.5 million, up 15.7%.

Our cardiovascular sales for the year ended December 31, 2017 were approximately $700.6 million, up 20.8%, when compared to the corresponding period for 2016 of approximately $580.2 million. Sales for the year ended December 31, 2017 were favorably affected by increased sales of (a) our stand-alone devices (particularly our Map™, Medallion®, guide wires, and HeRO® Graft products, as well as new sales from our acquisitions of the DFINE, Argon critical care division and Catheter Connections product lines) of approximately $84.3 million, up 44.1%; (b) catheters (particularly our SwiftNINJA® product line, Concierge® Guiding Catheters, Prelude® Radial Introducer Sheath product line, and our Merit Maestro®

Microcatheters) of approximately $14.4 million, up 12.7%; and (c) our custom kits and procedure trays of approximately $6.8 million, up 5.7%, which includes sales from our acquisition of ITL Healthcare Pty Ltd. ("ITL").

Sales by our international direct sales forces are subject to foreign currency exchange rate fluctuations between the natural currency of a foreign country and the U.S. Dollar. Foreign currency exchange rate fluctuations increased sales 0.6% for the year ended December 31, 2018 compared to 2017 and increased sales 0.1% for the year ended December 31, 2017 compared to 2016. New products and market share gains in our existing product lines were additional sources of revenue growth.

Endoscopy Sales. Our endoscopy sales for the year ended December 31, 2018 were approximately $33.3 million, up 22.2%, when compared to sales in 2017 of approximately $27.2 million. This increase was primarily related to new sales from our distribution agreement with NinePoint Medical, Inc. and our acquisition of BD, as well as an increase in sales of our EndoMAXX™ fully covered esophageal stent and our Elation® balloon dilator. Our endoscopy sales for the year ended December 31, 2017 were approximately $27.2 million, up 15.0%, when compared to sales in 2016 of approximately $23.7 million. This increase was primarily related to an increase in sales of our EndoMAXX™ fully covered esophageal stent and our Elation® balloon dilator.

International Sales. International sales for the year ended December 31, 2018 were approximately $386.3 million, or 44% of net sales, up 26% from 2017. International sales for the year ended December 31, 2017 were approximately $307.1 million, or 42% of net sales, up 32% from 2016. The increase in our international sales during 2018 was primarily related to a year-over-year sales increase in China of approximately $19.4 million, or 26%, in Japan of approximately $12.8 million, or 38%, and in Australia of approximately $9.3 million, or 190% (primarily due to the acquisition of ITL). The increase in our international sales during 2017 was primarily related to a year-over-year sales increase in China of approximately $13.4 million, or 22%, the acquisition of the critical care division of Argon, and sales in modified direct markets added in 2017, namely South Korea, Japan and India, as well as continued growth in direct markets added in 2016, namely Canada, Australia and Russia.

Gross Profit. Our gross profit as a percentage of sales was 44.7%, 44.8%, and 43.9% for the years ended December 31, 2018, 2017 and 2016, respectively. The decrease in gross profit as a percentage of sales for 2018, as compared to 2017, was primarily related to increased amortization expense and mark-up of acquired inventory associated with current year acquisitions and unfavorable manufacturing variances associated with our operations in Australia, which was partially offset by improvements associated with changes in product mix. The increase in gross profit as a percentage of sales for 2017, as compared to 2016, was primarily related to changes in product mix and increased efficiencies gained from our operations team.

Selling, General and Administrative Expenses. Our selling, general and administrative expenses increased approximately $46.9 million, or 20.5%, for the year ended December 31, 2018 compared to 2017 and $44.7 million, or 24.3%, for the year ended December 31, 2017 compared to 2016. Selling, general and administrative expenses as a percentage of sales were 31.3%, 31.5% and 30.5% for the years ended December 31, 2018, 2017 and 2016, respectively.

The increase in selling, general, and administrative expenses for the year ended December 31, 2018 compared to the year ended December 31, 2017 was primarily related to $7.6 million of acquisition and integration-related costs (compared to $6.6 million in 2017), increased headcount, increased amortization of intangible assets and foreign market expansion, partially offset by decreased legal costs associated with responding to the pending subpoena from the U.S. Department of Justice ($5.6 million in 2018 compared to $12.6 million in 2017).

The increase in selling, general, and administrative expenses for the year ended December 31, 2017 compared to the year ended December 31, 2016 was primarily related to legal expenses of approximately $12.6 million incurred in responding to the pending subpoena from the U.S. Department of Justice, $6.6 million of acquisition and integration-related costs, increased headcount, increased amortization, and foreign market expansion.

Research and Development Expenses. Research and development ("R&D") expenses increased by $8.1 million or 15.8% to approximately $59.5 million for the year ended December 31, 2018, compared to approximately $51.4 million in 2017. The increase in R&D expenses for the year ended December 31, 2018 was largely due to hiring additional research and development personnel to support various new core and acquired product developments. Research and development expenses increased by approximately $6.2 million or 13.7% to approximately $51.4 million for the year ended December 31, 2017, compared to approximately $45.2 million in 2016. The increase in R&D expenses for the year ended December 31, 2017 was largely due to hiring additional research and development personnel to support various new core and acquired product developments. Our research and development expenses as a percentage of sales were 6.7%, 7.1% and 7.5% for 2018,

2017, and 2016, respectively. We have a pipeline of new products, and we believe that we have an effective level of capabilities and expertise to continue the flow of new, internally developed products into the foreseeable future with average gross margins that are higher than our historical gross margins.

In addition, during the years ended December 31, 2018, 2017 and 2016 we incurred in-process research and development charges of approximately $0.6 million, $12.1 million and $0.5 million, respectively. The decrease in our in-process research and development charges for the year ended December 31, 2018 was primarily driven by the acquisition of IntelliMedical and its intellectual property rights associated with a steerable guidewire system in 2017, as discussed in Note 3 of the notes to our consolidated financial statements.

Our operating profits by business segment for the years ended December 31, 2018, 2017 and 2016 were as follows (in thousands):

	2018	2017	2016
Operating Income			
Cardiovascular	$ 49,289	$ 24,819	$ 30,053
Endoscopy	9,328	8,250	4,823
Total operating income	$ 58,617	$ 33,069	$ 34,876

Cardiovascular Operating Income. Our cardiovascular operating income for the year ended December 31, 2018 was approximately $49.3 million, compared to cardiovascular operating income of approximately $24.8 million for the year ended December 31, 2017. This increase in cardiovascular operating income was primarily related to increased sales, lower R&D costs as a percentage of sales, the $11.9 million acquired in-process R&D charge from Intellimedical in 2017 which did not repeat in 2018, lower legal expenses incurred in responding to the pending subpoena from the U.S. Department of Justice ($5.6 million in 2018 compared to $12.6 million in 2017), partially offset by costs related to increased headcount, increased amortization of intangible assets, and costs associated with foreign market expansion. Our cardiovascular operating income for the year ended December 31, 2017 was approximately $24.8 million, compared to operating income of approximately $30.1 million for the year ended December 31, 2016. This decrease in cardiovascular operating income was primarily related to legal expenses of approximately $12.6 million incurred in responding to the pending subpoena from the U.S. Department of Justice, $6.6 million of acquisition and integration-related costs, increased headcount, increased amortization, and foreign market expansion.

Endoscopy Operating Income. Our endoscopy operating income for the year ended December 31, 2018 was approximately $9.3 million, compared to approximately $8.3 million for the year ended December 31, 2017. This increase was primarily the result of higher sales (due to the distribution agreement with NinePoint Medical, Inc. and the acquisition of BD). Our endoscopy operating income for the year ended December 31, 2017 was approximately $8.3 million, compared to approximately $4.8 million for the year ended December 31, 2016. This increase was primarily the result of higher sales, improved gross margins, and lower SG&A expenses as a percentage of sales.

Effective Tax Rate. Our effective income tax rate for the years ended December 31, 2018, 2017 and 2016 was 15.2%, 23.3%, and 20.7%, respectively. On December 22, 2017, the U.S. government enacted the TCJA, which significantly revises the U.S. corporate tax by, among other things, lowering the corporate tax rate and imposing a one-time repatriation tax on deemed repatriated earnings of foreign subsidiaries (“transition tax”). The decrease in the effective income tax rate for 2018 compared to 2017 was primarily the result of the reduced U.S. corporate tax rate and the favorable impact of the revision and completion of the transition tax calculation, partially offset by the unfavorable impact of the estimated withholding tax on unremitted foreign earnings. The increase in the effective income tax rate for 2017 compared to 2016 was primarily the result of increased tax expense due to the transition tax, partially offset by the favorable impact of the reduced tax rate on our net deferred tax liabilities.

Other Income (Expense). Our other income (expense) for the years ended December 31, 2018, 2017 and 2016 was approximately $(9.1) million, $2.8 million, and $(9.5) million, respectively. The change in other income (expense) for 2018 over 2017 was principally the result of increased interest expense due to higher average debt balances during 2018 and from the fact that the gain on bargain purchase related to the 2017 acquisition of the Argon critical care division of approximately $11.0 million did not repeat in 2018. The change in other income (expense) for 2017 over 2016 was principally the result of the gain on bargain purchase related to the acquisition of the Argon critical care division of approximately $11.0 million.

Net Income. Our net income for the years ended December 31, 2018, 2017 and 2016 was approximately $42.0 million, $27.5 million, and $20.1 million, respectively. The increase in net income for 2018, when compared to 2017, was

primarily due to increased sales (both from acquisitions and organic growth), decreased R&D expenses as a percentage of sales, lower legal expenses incurred in responding to the pending subpoena from the U.S. Department of Justice ($5.6 million in 2018 compared to $12.6 million in 2017) and a lower effective tax rate in 2018 (in large part due to the TCJA), partially offset by slightly lower gross margins and increased interest expense due to higher average debt balances in 2018.

The increase in net income for the year ended December 31, 2017, when compared to 2016, was primarily due to increased sales, gross margin improvement and the gain on bargain purchase of approximately $11.0 million related to the acquisition of the Argon critical care division, which was partially offset by the acquired in-process research and development expenses of approximately $12.1 million attributable to the IntelliMedical acquisition, approximately $12.6 million of legal expenses incurred in responding to the pending subpoena from the U.S. Department of Justice, and approximately $6.6 million of acquisition and integration-related costs.

Total Assets. Total assets utilized in our cardiovascular segment were approximately $1.6 billion as of December 31, 2018, compared to approximately $1.1 billion as of December 31, 2017 and approximately $932.9 million as of December 31, 2016. Total assets utilized in our endoscopy segment were approximately $31.0 million as of December 31, 2018, compared to approximately $8.0 million as of December 31, 2017 and approximately $9.9 million as of December 31, 2016.

Off-Balance Sheet Arrangements. We do not have any off-balance sheet arrangements that have had, or are reasonably likely in the future to have, an effect on our financial condition, results of operations, liquidity, capital expenditures or capital resources.

Liquidity and Capital Resources

Capital Commitments and Contractual Obligations

The following table summarizes our capital commitments and contractual obligations as of December 31, 2018, as well as the future periods in which such payments are currently anticipated to become due:

	Payment due by period (in thousands)				
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**4-5 Years**	**After 5 Years**
Long-term debt	$ 395,500	$ 22,000	$ 373,500	$ —	$ —
Interest on long-term debt [(1)]	39,843	11,063	28,780	—	—
Operating leases	102,495	13,421	21,314	15,006	52,754
Royalty obligations	7,236	804	1,442	1,350	3,640
Total contractual cash	$ 545,074	$ 47,288	$ 425,036	$ 16,356	$ 56,394

[(1)] Interest payments on our variable long-term debt were forecasted using the LIBOR forward curves plus a base of 1.00% based on the terms of our Second Amended Credit Agreement. Interest payments on a portion of our long-term debt were forecasted using a fixed rate of 2.115% as a result of our interest rate swap (see Note 8 to our consolidated financial statements set forth in Item 8 of this report).

As of December 31, 2018, we had approximately $82.2 million of contingent consideration liabilities, $3.0 million of unrecognized tax positions, and $11.2 million of deferred compensation payable that have been recognized as liabilities that have not been included in the contractual obligations table due to uncertainty as to when such amounts may be settled.

Additional information regarding our capital commitments and contractual obligations, including royalty payments, is contained in Notes 8 and 10 to our consolidated financial statements set forth in Item 8 below.

Cash Flows

At December 31, 2018 and 2017, we had cash and cash equivalents of approximately $67.4 million and $32.3 million respectively, of which approximately $57.3 million and $30.4 million, respectively, were held by foreign subsidiaries. The TCJA one-time repatriation tax liability effectively taxes the undistributed earnings previously deferred from U.S. income taxes. The TCJA eliminated certain material tax effects on the repatriation of cash to the U.S. Future repatriation of cash and other property held by our foreign subsidiaries will generally not be subject to U.S. federal income tax. As a result, after reevaluation of the permanent reinvestment assertion, we are no longer permanently reinvested with respect to our historic unremitted foreign earnings as of December 31, 2018.

In addition, cash held by our subsidiary in China is subject to local laws and regulations that require government approval for the transfer of such funds to entities located outside of China. As of December 31, 2018 and 2017, we had cash and cash equivalents of approximately $18.6 million and $13.1million, respectively, held by our subsidiary in China.

Cash flows provided by operating activities. Cash provided by operating activities during the years ended December 31, 2018 and 2017 was primarily the result of net income excluding non-cash items, offset by shifts in working capital. Our working capital as of December 31, 2018, 2017 and 2016 was approximately $254.5 million, $200.5 million and $155.1 million, respectively. The increase in working capital as of December 31, 2018 compared to December 31, 2017 was primarily the result of increases in cash, trade receivables and inventories, which were partially offset by an increase in trade payables and accrued expenses. The increase in working capital as of December 31, 2017 compared to December 31, 2016 was primarily the result of increases in cash, trade receivables and inventories, which were partially offset by an increase in accrued expenses and the current portion of long-term debt. As of December 31, 2018 and 2017, we had a current ratio of 2.45 to 1 and 2.73 to 1, respectively.

During the year ended December 31, 2018, our inventory balance increased approximately $42.2 million, from approximately $155.3 million as of December 31, 2017 to approximately $197.5 million as of December 31, 2018. The increase in the inventory balance was due to several factors, including acquisitions and increased demand. During the year ended December 31, 2017, our inventory balance increased approximately $34.6 million, from approximately $120.7 million at December 31, 2016 to approximately $155.3 million at December 31, 2017. The increase in the inventory balance was due to several factors, including acquisitions, increased sales, and the opening of new modified direct sales markets in South Korea, India, and Japan. The trailing twelve month inventory turns for the period ended December 31, 2018 was 2.80, compared to 2.91 for the twelve-month period ended December 31, 2017.

Cash flows provided by financing activities. Cash provided by financing activities for the year ended December 31, 2018 was approximately $328.3 million compared to approximately $96.5 million for the year ended December 31, 2017, an increase of approximately $231.8 million. The increase in net cash provided from financing activities was primarily the result of an increase in the proceeds from the issuance of long-term debt (primarily driven by the acquisitions of BD and Cianna Medical), as well as cash provided from our public equity offering of 4,025,000 shares of common stock (from which we received net proceeds of approximately $205.0 million, which is net of approximately $12.0 million in underwriting discounts and commissions incurred and paid by us in connection with this equity offering). This was partially offset by increased payments on our long-term debt, as we used the proceeds of the equity offering to pay down debt balances.

Cash provided by financing activities for the year ended December 31, 2017 was approximately $96.5 million, compared to approximately $121.1 million for the year ended December 31, 2016, a change of approximately $24.6 million. The decrease in net cash provided from financing activities was primarily the result of a decrease in the proceeds from the issuance of long-term debt, which was partially offset by our public equity offering of 5,175,000 shares of common stock from which we received net proceeds of approximately $136.6 million, which is net of approximately $8.8 million in underwriting discounts and commissions and approximately $816,000 in other direct costs incurred and paid by us in connection with this equity offering.

The Second Amended Credit Agreement provides for a term loan of $150 million and a revolving credit commitment up to an aggregate amount of $375 million, which includes a reserve of $25 million to make swingline loans from time to time. The term loan is payable in quarterly installments in the amounts provided in the Second Amended Credit Agreement until the maturity date of July 6, 2021, at which time the term and revolving credit loans, together with accrued interest thereon, will be due and payable. At any time prior to the maturity date, we may repay any amounts owing under all revolving credit loans, term loans, and all swingline loans in whole or in part, subject to certain minimum thresholds, without premium or penalty, other than breakage costs.

Revolving credit loans denominated in dollars and term loans made under the Second Amended Credit Agreement bear interest, at our election, at either a Base Rate or Eurocurrency Base Rate (as such terms are defined in the Second Amended Credit Agreement) plus the applicable margin, which increases as our Consolidated Total Leverage Ratio (as defined in the Second Amended Credit Agreement) increases. Revolving credit loans denominated in an Alternative Currency (as defined in the Second Amended Credit Agreement) bear interest at the Eurocurrency rate plus the applicable margin. Swingline loans bear interest at the base rate plus the applicable margin. Upon an event of default, the interest rate may be increased by 2.0%. The revolving credit commitment will also carry a commitment fee of 0.15% to 0.40% per annum on the unused portion.

The Second Amended Credit Agreement is collateralized by substantially all our assets. The Second Amended Credit Agreement contains covenants, representations and warranties and other terms customary for loans of this nature. The Second Amended Credit Agreement requires that we maintain certain financial covenants, as follows:

	Covenant Requirement
Consolidated Total Leverage Ratio (1)	
January 1, 2018 and thereafter	3.25 to 1.0
Consolidated EBITDA (2)	1.25 to 1.0
Consolidated Net Income (3)	$—
Facility Capital Expenditures (4)	$30 million

(1) Maximum Consolidated Total Leverage Ratio (as defined in the Second Amended Credit Agreement) as of any fiscal quarter end.

(2) Minimum ratio of Consolidated EBITDA (as defined in the Second Amended Credit Agreement and adjusted for certain expenditures) to Consolidated Fixed Charges (as defined in the Second Amended Credit Agreement) for any period of four consecutive fiscal quarters.

(3) Minimum level of Consolidated Net Income (as defined in the Second Amended Credit Agreement) for certain periods, and subject to certain adjustments.

(4) Maximum level of the aggregate amount of all Facility Capital Expenditures (as defined in the Second Amended Credit Agreement) in any fiscal year.

Additionally, the Second Amended Credit Agreement contains customary events of default and affirmative and negative covenants for transactions of this type. As of December 31, 2018, we believe we were in compliance with all covenants set forth in the Second Amended Credit Agreement.

As of December 31, 2018, we had outstanding borrowings of approximately $388.5 million under the Second Amended Credit Agreement, with available borrowings of approximately $58.3 million, based on the leverage ratio required pursuant to the Second Amended Credit Agreement. Our interest rate as of December 31, 2018 was a fixed rate of 2.12% on $175.0 million as a result of an interest rate swap (see Note 9) and a variable floating rate of 3.52% on $213.5 million. We also had a variable rate of 3.39% on $7.0 million related to our collateralized debt facility with HSBC in China.

Our interest rate as of December 31, 2017 was a fixed rate of 2.68% on $175.0 million as a result of an interest rate swap (see Note 9) and a variable floating rate of 2.82% on $97.0 million. We also had a variable floating rate of 2.38% on approximately $7.0 million related to a collateralized debt facility with HSBC in China.

Cash flows used in investing activities. Our cash flow used in investing activities for the year ended December 31, 2018 was approximately $378.8 million compared to approximately $146.8 million for the year ended December 31, 2017, an increase of approximately $232.1 million. This increase was primarily a result of an increase of approximately $196.2 million in net cash paid for acquisitions (primarily BD and Cianna Medical) during the year ended December 31, 2018, compared to the year ended December 31, 2017 (see Note 3) and a $24.7 million increase in capital expenditures for property and equipment to fund our expanding operations.

Our cash flow used in investing activities for the year ended December 31, 2017 was approximately $146.8 million, compared to approximately $159.1 million for the year ended December 31, 2016, a decrease of approximately $12.3 million. This decrease was primarily a result of a decrease of approximately $19.6 million in net cash paid for acquisitions during the year ended December 31, 2017, compared to the year ended December 31, 2016 (see Note 3), partially offset by a $5.8 million increase in capital expenditures for property and equipment.

Capital expenditures for property and equipment were approximately $63.3 million, $38.6 million, and $32.8 million for the years ended December 31, 2018, 2017 and 2016, respectively. Historically, we have incurred significant expenses in connection with facility construction, production automation, product development and the introduction of new products. We anticipate that we will spend approximately $60 to $65 million in 2019 for buildings, property and equipment.

We currently believe that our existing cash balances, anticipated future cash flows from operations and borrowings under the Second Amended Credit Agreement will be adequate to fund our current and currently planned future operations for the next twelve months and the foreseeable future. In the event we pursue and complete significant transactions or acquisitions in the future, additional funds will likely be required to meet our strategic needs, which may require us to raise additional funds in the debt or equity markets.

Critical Accounting Policies and Estimates

The SEC has requested that all registrants address their most critical accounting policies. The SEC has indicated that a "critical accounting policy" is one which is both important to the representation of the registrant's financial condition and results and requires management's most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. We base our estimates on past experience and on various other assumptions our management believes to be reasonable under the circumstances, the results of which form the basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results will differ, and may differ materially from these estimates under different assumptions or conditions. Additionally, changes in accounting estimates could occur in the future from period to period. The following paragraphs identify our most critical accounting policies:

Inventory Obsolescence. Our management reviews on a quarterly basis inventory quantities on hand for unmarketable and/or slow-moving products that may expire prior to being sold. This review includes quantities on hand for both raw materials and finished goods. Based on this review, we provide adjustments for any slow-moving finished good products or raw materials that we believe will expire prior to being sold or used to produce a finished good and any products that are unmarketable. This review of inventory quantities for unmarketable and/or slow moving products is based on forecasted product demand prior to expiration lives.

Forecasted unit demand is derived from our historical experience of product sales and production raw material usage. If market conditions become less favorable than those projected by our management, additional inventory write-downs may be required. During the years ended December 31, 2018, 2017 and 2016, we recorded obsolescence expense of approximately $8.2 million, $6.1 million, and $3.9 million, respectively, and wrote off approximately $7.9 million, $2.9 million, and $2.8 million, respectively. Based on this historical trend, we believe that our inventory balances as of December 31, 2018 have been accurately adjusted for any unmarketable and/or slow moving products that may expire prior to being sold.

Allowance for Doubtful Accounts. A majority of our receivables are with hospitals which, over our history, have demonstrated favorable collection rates. Therefore, we have experienced relatively minimal bad debts from hospital customers. In limited circumstances, we have written off bad debts as the result of the termination of our business relationships with foreign distributors. The most significant write-offs over our history have come from U.S. and international distributors, as well as from U.S. custom procedure tray manufacturers who bundle our products in surgical trays.

We maintain allowances for doubtful accounts relating to estimated losses resulting from the inability of our customers to make required payments. These allowances are based upon historical experience and a review of individual customer balances. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Stock-Based Compensation. We measure stock-based compensation cost at the grant date based on the value of the award and recognize the cost as an expense over the term of the vesting period. Judgment is required in estimating the fair value of stock-based awards granted and their expected forfeiture rate. If actual results differ significantly from these estimates, stock-based compensation expense and our results of operations could be materially impacted.

Income Taxes. Under our accounting policies, we initially recognize a tax position in our financial statements when it becomes more likely than not that the position will be sustained upon examination by the tax authorities. Such tax positions are initially and subsequently measured as the largest amount of tax positions that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authorities assuming full knowledge of the position and all relevant facts. Although we believe our provisions for unrecognized tax positions are reasonable, we can make no assurance that the final tax outcome of these matters will not be different from that which we have reflected in our income tax provisions and accruals. The tax law is subject to varied interpretations, and we have taken positions related to certain matters where the law is subject to interpretation. Such differences could have a material impact on our income tax provisions and operating results in the period(s) in which we make such determination.

Valuation of Goodwill, Intangible Assets and Contingent Consideration. We allocate any excess purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination to goodwill. We test our goodwill balances for impairment as of July 1 of each year, or whenever impairment indicators arise. We utilize several reporting units in evaluating goodwill for impairment. We assess the estimated fair value of reporting units using a combination of a guideline public company market-based approach and a discounted cash flow income-based approach. If the carrying amount of a reporting unit exceeds the fair value of the reporting unit, an impairment charge is recognized in an amount equal to the excess of the carrying amount of the reporting unit goodwill over the implied fair value of that goodwill. This analysis requires significant judgment, including estimation of future cash flows and the length of time they will occur, which is based on internal forecasts, and a

determination of a discount rate based on our weighted average cost of capital. During our annual test of goodwill balances in 2018, which was completed during the third quarter of 2018, we determined that the fair value of each reporting unit with goodwill exceeded the carrying amount by a significant amount.

We evaluate the recoverability of intangible assets subject to amortization whenever events or changes in circumstances indicate that an asset's carrying amount may not be recoverable. This analysis requires similar significant judgments as those discussed above regarding goodwill, except that undiscounted cash flows are compared to the carrying amount of intangible assets to determine if impairment exists. In-process technology intangible assets, which are not subject to amortization until projects reach commercialization, are assessed for impairment at least annually and more frequently if events occur that would indicate a potential reduction in the fair value of the assets below their carrying value.

During the year ended December 31, 2018, we compared the carrying value of the amortizing intangible assets acquired in our July 2015 acquisition of certain assets from Quellent, LLC, all of which pertained to our cardiovascular segment, to the undiscounted cash flows expected to result from the asset group and determined that the carrying amount was not recoverable. We then determined the fair value of the amortizing assets related to the Quellent acquisition based on estimated future cash flows discounted back to their present value using a discount rate that reflects the risk profiles of the underlying activities. Some of the factors that influenced our estimated cash flows were slower than anticipated sales growth in the products acquired from our Quellent acquisition and uncertainty about future sales growth. The excess of the carrying value compared to the fair value was recognized as an intangible asset impairment charge. We recorded an impairment charge for Quellent of approximately $657,000.

During the year ended December 31, 2017, we compared the carrying value of the amortizing intangible assets acquired in our July 2015 acquisition of certain assets from Distal Access, LLC to the undiscounted cash flows expected to result from the asset group and determined that the carrying amount was not recoverable. We then determined the fair value of the amortizing assets related to the Distal Access acquisition based on estimated future cash flows discounted back to their present value using a discount rate that reflects the risk profiles of the underlying activities. Some of the factors that influenced our estimated cash flows were slower than anticipated sales growth in the products acquired from our Distal Access acquisition and uncertainty about future sales growth. The excess of the carrying value compared to the fair value was recognized as an intangible asset impairment charge. We recorded an impairment charge for Distal Access of approximately $809,000.

Contingent consideration is an obligation by the buyer to transfer additional assets or equity interests to the former owner upon reaching certain performance targets. Certain of our business combinations involve the potential for the payment of future contingent consideration, generally based on a percentage of future product sales or upon attaining specified future revenue or other milestones. In connection with a business combination, any contingent consideration is recorded on the acquisition date based upon the consideration expected to be transferred in the future. We utilize a discounted cash flow method, which includes a probability factor for milestone payments, in valuing the contingent consideration liability. We re-measure the estimated liability each quarter and record changes in the estimated fair value through operating expense in our consolidated statements of income. Significant increases or decreases in our estimates could result in changes to the estimated fair value of our contingent consideration liability, as the result of changes in the timing and amount of revenue estimates, as well as changes in the discount rate or periods.

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

Our principal market risk relates to changes in the value of the following currencies related to the U.S. Dollar (USD):

- Euro (EUR),
- Chinese Yuan Renminbi (CNY), and
- British Pound (GBP)

We also have a limited market risk relating to the following currencies (among others):

- Hong Kong Dollar (HKD),
- Mexican Peso (MXN),
- Australian Dollar (AUD),
- Canadian Dollar (CAD),
- Brazilian Real (BRL),
- Swiss Franc (CHF),
- Swedish Krona (SEK),
- Danish Krone (DKK),
- South Korean Won (KRW), and
- Japanese Yen (JPY).

Our consolidated financial statements are denominated in, and our principal currency is, the U.S. Dollar. For the year ended December 31, 2018, a portion of our net sales (approximately $284.8 million, representing approximately 32.3% of our aggregate net sales), was attributable to sales that were denominated in foreign currencies. All other international sales were denominated in U.S. Dollars.

Our Euro-denominated revenue represents our largest single currency risk. However, our Euro-denominated expenses associated with our European operations (manufacturing sites, a distribution facility and sales representatives) provide a natural hedge. Accordingly, changes in the Euro, and in particular a strengthening of the U.S. Dollar against the Euro, generally have a positive effect on our operating income. As we continue to expand our operations in China, we have been increasingly exposed to currency risk related to our CNY-denominated revenue. In general, a strengthening of the U.S. Dollar against CNY has a negative effect on our operating income. The following table presents the USD impact to reported operating income related to a hypothetical positive and negative 10% exchange rate fluctuation in the value of the U.S. Dollar relative to both the EUR and CNY:

(in thousands)	**USD Relative to Other Currency**	
	10% Strengthening	**10% Weakening**
Impact to Operating Income of:		
EUR	$4,600	$(4,600)
CNY	$(6,600)	$6,600

During the year ended December 31, 2018, exchange rate fluctuations of foreign currencies against the U.S. Dollar had the following impact on sales, cost of sales and gross profit (in thousands, except basis points):

	Year Ended December 31, 2018 Currency Impact to Reported Amounts	
	Increase/(Decrease)	Percent Increase/(Decrease)
Net Sales	5,163	0.59 %
Cost of Sales	5,260	1.09 %
Gross Profit (1)	(97)	(0.02)%

(1) Represents approximately 27 basis points decrease in gross margin percentage

The impact to sales for the year ended December 31, 2018 was primarily a result of favorable impacts due to sales denominated in CNY and EUR, partially offset by unfavorable impacts due to sales denominated in BRL. The impact to cost of sales was primarily a result of unfavorable impacts from EUR fluctuations related to manufacturing costs from our facilities in

Europe denominated in EUR and unfavorable MXN fluctuations on our manufacturing costs from our facility in Tijuana, Mexico denominated in MXN.

We forecast our net exposure in various receivables and payables to fluctuations in the value of various currencies, and we enter into foreign currency forward contracts to mitigate that exposure. As of December 31, 2018, we had entered into the following foreign currency forward contracts (which were not designated as hedging instruments) related to those balance sheet accounts (amounts in thousands and in local currencies):

Currency	Symbol	Forward Notional Amount
Australian Dollar	AUD	11,400
Brazilian Real	BRL	9,000
Canadian Dollar	CAD	2,300
Swiss Franc	CHF	269
Chinese Renminbi	CNY	63,200
Danish Krone	DKK	3,237
Euro	EUR	5,927
British Pound	GBP	2,358
Hong Kong Dollar	HKD	11,000
Japanese Yen	JPY	265,000
Korean Won	KRW	5,500,000
Mexican Peso	MXN	23,000
Swedish Krona	SEK	9,627
Singapore Dollar	SGD	8,500

We also forecast our net exposure related to sales and expenses denominated in foreign currencies. As of December 31, 2018, we had entered into foreign currency forward contracts, which qualified as cash flow hedges, with the following notional amounts (in thousands and in local currencies):

Currency	Symbol	Forward Notional Amount
Australian Dollar	AUD	3,000
Canadian Dollar	CAD	4,410
Swiss Franc	CHF	2,145
Chinese Renminbi	CNY	160,000
Danish Krone	DKK	17,225
Euro	EUR	20,310
British Pound	GBP	5,280
Japanese Yen	JPY	1,145,000
Korean Won	KRW	3,050,000
Mexican Peso	MXN	230,000
Swedish Krona	SEK	30,210

See Note 9 to our consolidated financial statements for a discussion of our foreign currency forward contracts.

As discussed in Note 8 to our consolidated financial statements set forth in Item 8 of this report, as of December 31, 2018, we had outstanding borrowings of approximately $388.5 million under the Second Amended Credit Agreement. Accordingly, our earnings and after-tax cash flow are affected by changes in interest rates. On August 5, 2016, we entered into a pay-fixed, receive-variable interest rate swap with Wells Fargo, which as of December 31, 2018 had a notional amount of $175 million, to fix the one-month LIBOR rate at 1.12%. The interest rate swap is scheduled to expire on July 6, 2021. This instrument is intended to reduce our exposure to interest rate fluctuations and was not entered into for speculative purposes. Excluding the amount that is subject to a fixed rate under the interest rate swap and assuming the current level of borrowings remained the same, it is estimated that our interest expense and income before income taxes would change by approximately $2.1 million annually for each one percentage point change in the average interest rate under these borrowings.

In the event of an adverse change in interest rates, our management would likely take actions to mitigate our exposure. However, due to the uncertainty of the actions that would be taken and their possible effects, additional analysis is not possible at this time. Further, such analysis would not consider the effects of the change in the level of overall economic activity that could exist in such an environment.

Item 8. Financial Statements and Supplementary Data.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Merit Medical Systems, Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Merit Medical Systems, Inc. and subsidiaries (the "Company") as of December 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the U.S. of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on the criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 1, 2019, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

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

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

/s/ DELOITTE & TOUCHE LLP

Salt Lake City, Utah
March 1, 2019
We have served as the Company's auditor since 1988.

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2018 AND 2017
(In thousands)

	2018	2017
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 67,359	$ 32,336
Trade receivables — net of allowance for uncollectible accounts — 2018 — $2,355 and 2017 — $1,769	137,174	105,536
Other receivables	11,879	9,429
Inventories	197,536	155,288
Prepaid expenses and other assets	11,326	9,096
Prepaid income taxes	3,627	3,225
Income tax refund receivables	933	1,211
Total current assets	429,834	316,121
PROPERTY AND EQUIPMENT:		
Land and land improvements	26,801	19,877
Buildings	151,251	147,356
Manufacturing equipment	221,029	197,651
Furniture and fixtures	54,765	49,528
Leasehold improvements	33,678	31,161
Construction-in-progress	53,491	32,896
Total property and equipment	541,015	478,469
Less accumulated depreciation	(209,563)	(185,649)
Property and equipment — net	331,452	292,820
OTHER ASSETS:		
Intangible assets:		
Developed technology — net of accumulated amortization — 2018 — $102,357 and 2017 — $72,420	383,147	167,771
Other — net of accumulated amortization — 2018 — $49,136 and 2017 — $38,127	79,566	59,553
Goodwill	335,433	238,147
Deferred income tax assets	3,001	2,359
Other assets	57,579	35,040
Total other assets	858,726	502,870
TOTAL	$ 1,620,012	$ 1,111,811

See notes to consolidated financial statements.

(continued)

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
DECEMBER 31, 2018 AND 2017
(In thousands)

	2018	2017
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Trade payables	$ 54,024	$ 34,931
Accrued expenses	96,173	58,932
Current portion of long-term debt	22,000	19,459
Income taxes payable	3,146	2,298
Total current liabilities	175,343	115,620
LONG-TERM DEBT	373,152	259,013
DEFERRED INCOME TAX LIABILITIES	56,363	23,289
LONG-TERM INCOME TAXES PAYABLE	392	4,846
LIABILITIES RELATED TO UNRECOGNIZED TAX BENEFITS	3,013	2,746
DEFERRED COMPENSATION PAYABLE	11,219	11,181
DEFERRED CREDITS	2,261	2,403
OTHER LONG-TERM OBLIGATIONS	65,494	16,379
Total liabilities	687,237	435,477
COMMITMENTS AND CONTINGENCIES (Notes 3, 8, 9, and 10)		
STOCKHOLDERS' EQUITY:		
Preferred stock — 5,000 shares authorized as of December 31, 2018 and 2017; no shares issued	—	—
Common stock, no par value; shares authorized — 2018 and 2017 - 100,000; issued and outstanding as of December 31, 2018 - 54,893 and December 31, 2017 - 50,248	571,383	353,392
Retained earnings	363,425	321,408
Accumulated other comprehensive income (loss)	(2,033)	1,534
Total stockholders' equity	932,775	676,334
TOTAL	$ 1,620,012	$ 1,111,811

See notes to consolidated financial statements. (concluded)

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(In thousands, except per share amounts)

	2018	2017	2016
NET SALES	$ 882,753	$ 727,852	$ 603,838
COST OF SALES	487,983	401,599	338,813
GROSS PROFIT	394,770	326,253	265,025
OPERATING EXPENSES:			
Selling, general and administrative	276,018	229,134	184,398
Research and development	59,532	51,403	45,229
Intangible asset impairment charges	657	809	—
Contingent consideration expense (benefit)	(698)	(298)	61
Acquired in-process research and development	644	12,136	461
Total operating expenses	336,153	293,184	230,149
INCOME FROM OPERATIONS	58,617	33,069	34,876
OTHER INCOME (EXPENSE):			
Interest income	1,199	381	81
Interest expense	(10,360)	(7,736)	(8,798)
Gain on bargain purchase	—	11,039	—
Other income (expense) - net	63	(872)	(773)
Other income (expense) — net	(9,098)	2,812	(9,490)
INCOME BEFORE INCOME TAXES	49,519	35,881	25,386
INCOME TAX EXPENSE	7,502	8,358	5,265
NET INCOME	$ 42,017	$ 27,523	$ 20,121
EARNINGS PER COMMON SHARE:			
Basic	$ 0.80	$ 0.56	$ 0.45
Diluted	$ 0.78	$ 0.55	$ 0.45
AVERAGE COMMON SHARES:			
Basic	52,268	48,805	44,408
Diluted	53,931	50,101	44,862

See notes to consolidated financial statements.

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(In thousands)

	2018	2017	2016
Net income	$ 42,017	$ 27,523	$ 20,121
Other comprehensive income (loss):			
Cash flow hedges	64	901	4,784
Less income tax (expense)	(16)	(350)	(1,861)
Foreign currency translation adjustment	(3,606)	3,117	878
Less income tax (expense)	(9)	(252)	(196)
Total other comprehensive income (loss)	(3,567)	3,416	3,605
Total comprehensive income	$ 38,450	$ 30,939	$ 23,726

See notes to consolidated financial statements.

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(In thousands)

		Common Stock			Accumulated Other Comprehensive
	Total	Shares	Amount	Retained Earnings	Income (Loss)
BALANCE — January 1, 2016	$ 466,103	44,267	$ 197,826	$ 273,764	$ (5,487)
Net income	20,121			20,121	
Other comprehensive income	3,605				3,605
Excess tax benefits from stock-based compensation	669		669		
Stock-based compensation expense	2,506		2,506		
Options exercised	4,923	362	4,923		
Issuance of common stock under Employee Stock Purchase Plans	694	34	694		
Shares surrendered in exchange for payment of payroll tax liabilities	(86)	(4)	(86)		
Shares surrendered in exchange for exercise of stock options	(346)	(14)	(346)		
BALANCE — December 31, 2016	498,189	44,645	206,186	293,885	(1,882)
Net income	27,523			27,523	
Other comprehensive income	3,416				3,416
Stock-based compensation expense	4,075		4,075		
Options exercised	5,689	404	5,689		
Issuance of common stock under Employee Stock Purchase Plans	836	24	836		
Issuance of common stock, net of offering costs	136,606	5,175	136,606		
BALANCE — December 31, 2017	676,334	50,248	353,392	321,408	1,534
Net income	42,017			42,017	
Other comprehensive loss	(3,567)				(3,567)
Stock-based compensation expense	6,117		6,117		
Options exercised	10,634	690	10,634		
Issuance of common stock under Employee Stock Purchase Plans	1,087	22	1,087		
Issuance of common stock, net of offering costs	205,030	4,025	205,030		
Shares surrendered in exchange for payment of payroll tax liabilities	(2,616)	(49)	(2,616)		
Shares surrendered in exchange for exercise of stock options	(2,261)	(43)	(2,261)		
BALANCE — December 31, 2018	$ 932,775	54,893	$ 571,383	$ 363,425	$ (2,033)

See notes to consolidated financial statements.

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(In thousands)

	2018	2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 42,017	$ 27,523	$ 20,121
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	69,546	53,582	43,755
Gain on bargain purchase	—	(11,039)	—
Losses on sales and/or abandonment of property and equipment	625	427	530
Write-off of patents and intangible assets	814	988	101
Acquired in-process research and development	644	12,136	461
Amortization of deferred credits	(142)	(147)	(170)
Amortization of long-term debt issuance costs	804	685	952
Deferred income taxes	2,052	(1,304)	(962)
Excess tax benefits from stock-based compensation	—	—	(669)
Stock-based compensation expense	6,117	4,075	2,506
Changes in operating assets and liabilities, net of effects from acquisitions:			
Trade receivables	(27,522)	(12,844)	(6,816)
Other receivables	(2,754)	(3,557)	1,161
Inventories	(28,172)	(17,834)	(3,656)
Prepaid expenses and other current assets	(2,000)	(1,236)	271
Prepaid income taxes	(444)	(611)	404
Income tax refund receivables	232	(588)	406
Other assets	315	(3,735)	(3,763)
Trade payables	15,726	417	(6,835)
Accrued expenses	12,706	6,461	3,242
Income taxes payable	918	21	1,451
Long-term income taxes payable	(4,454)	4,846	—
Liabilities related to unrecognized tax benefits	267	(19)	597
Deferred compensation payable	39	1,970	712
Other long-term obligations	(801)	2,510	(200)
Total adjustments	44,516	35,204	33,478
Net cash provided by operating activities	86,533	62,727	53,599
CASH FLOWS FROM INVESTING ACTIVITIES:			
Capital expenditures for:			
Property and equipment	(63,324)	(38,623)	(32,837)
Intangible assets	(3,012)	(2,577)	(2,217)
Proceeds from sale of cost method investment	—	—	1,089
Proceeds from the sale of property and equipment	55	21	19
Issuance of notes receivable	(10,750)	—	—
Cash paid in acquisitions, net of cash acquired	(301,789)	(105,582)	(125,161)
Net cash used in investing activities	(378,820)	(146,761)	(159,107)

See notes to consolidated financial statements.

(continued)

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
YEARS ENDED DECEMBER 31, 2018, 2017 AND 2016
(In thousands)

	2018	2017	2016
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from issuance of common stock	$ 214,993	$ 143,810	$ 5,271
Offering costs	(366)	(816)	—
Proceeds from issuance of long-term debt	639,108	197,214	219,505
Payments on long-term debt	(522,608)	(243,214)	(102,098)
Excess tax benefits from stock-based compensation	—	—	669
Long-term debt issuance costs	—	(416)	(1,948)
Contingent payments related to acquisitions	(231)	(61)	(218)
Payment of taxes related to an exchange of common stock	(2,616)	—	(86)
Net cash provided by financing activities	328,280	96,517	121,095
EFFECT OF EXCHANGE RATES ON CASH	(970)	682	(593)
NET INCREASE IN CASH AND CASH EQUIVALENTS	35,023	13,165	14,994
CASH AND CASH EQUIVALENTS:			
Beginning of year	32,336	19,171	4,177
End of year	$ 67,359	$ 32,336	$ 19,171
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
Cash paid during the year for:			
Interest (net of capitalized interest of $647, $513 and $460, respectively)	$ 10,324	$ 7,707	$ 8,872
Income taxes	$ 8,692	$ 6,049	$ 2,318
SUPPLEMENTAL DISCLOSURES OF NON-CASH INVESTING AND FINANCING ACTIVITIES			
Property and equipment purchases in accounts payable	$ 4,989	$ 1,992	$ 2,398
Contingent receivable in exchange for sale of equity investment	$ —	$ —	$ 711
Receivable for issuance of common stock associated with option exercises	$ —	$ 137	$ —
Acquisition purchases in accrued expenses and other long-term obligations	$ 72,209	$ 10,488	$ —
Merit common stock surrendered (43, 0 and 14 shares, respectively) in exchange for exercise of stock options	$ 2,261	$ —	$ 346

See notes to consolidated financial statements.

(concluded)

MERIT MEDICAL SYSTEMS, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
YEARS ENDED DECEMBER 31, 2018, 2017 and 2016

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization. Merit Medical Systems, Inc. (“Merit,” “we,” or “us”) designs, develops, manufactures and markets single-use medical products for interventional and diagnostic procedures. For financial reporting purposes, we report our operations in two operating segments: cardiovascular and endoscopy. Our cardiovascular segment consists of cardiology and radiology medical device products which assist in diagnosing and treating coronary artery disease, peripheral vascular disease and other non-vascular diseases and includes embolotherapeutic, cardiac rhythm management, electrophysiology, critical care, and interventional oncology and spine devices. Our endoscopy segment consists of gastroenterology and pulmonology devices which assist in the palliative treatment of expanding esophageal, tracheobronchial and biliary strictures caused by malignant tumors. Within those two operating segments, we offer products focused in six core product groups: peripheral intervention, cardiac intervention, interventional oncology and spine, cardiovascular and critical care, breast cancer localization and guidance, and endoscopy.

We manufacture our products in plants located in the U.S., Mexico, The Netherlands, Ireland, France, Brazil, Australia, and Singapore. We export sales to dealers and have direct or modified direct sales forces in the U.S., Canada, Western Europe, Australia, Brazil, Russia, Japan, China, Malaysia, South Korea, UAE, India, New Zealand and South Africa (see Note 13). Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States. The following is a summary of the more significant of such policies.

Use of Estimates in Preparing Financial Statements. The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Principles of Consolidation. The consolidated financial statements include our wholly owned subsidiaries. Intercompany balances and transactions have been eliminated.

Cash and Cash Equivalents. For purposes of the statements of cash flows, we consider interest bearing deposits with an original maturity date of three months or less to be cash equivalents.

Receivables. Trade accounts receivable are recorded at the net invoice value and are not interest bearing. An allowance for uncollectible accounts receivable is recorded based on our historical bad debt experience and on management’s evaluation of our ability to collect individual outstanding balances. Once collection efforts have been exhausted and a receivable is deemed to be uncollectible, such balance is charged against the allowance for uncollectible accounts.

Inventories. We value our inventories at the lower of cost, at approximate costs determined on a first-in, first-out method, or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. Inventory costs include material, labor and manufacturing overhead. We review inventories on hand at least quarterly and record provisions for estimated excess, slow moving and obsolete inventory, as well as inventory with a carrying value in excess of net realizable value. The regular and systematic inventory valuation reviews include a current assessment of future product demand, historical experience and product expiration.

Goodwill and Intangible Assets. We test goodwill balances for impairment on an annual basis as of July 1 or whenever impairment indicators arise. We utilize several reporting units in evaluating goodwill for impairment. We assess the estimated fair value of reporting units using a combination of a guideline public company market-based approach and a discounted cash flow income-based approach. If the carrying amount of a reporting unit exceeds the fair value of the reporting unit, an impairment charge is recognized in an amount equal to the excess of the carrying amount of the reporting unit goodwill over the implied fair value of that goodwill.

Finite-lived intangible assets including developed technology, customer lists, distribution agreements, license agreements, trademarks, covenants not to compete and patents are subject to amortization. Intangible assets are amortized over their estimated useful life on a straight-line basis, except for customer lists, which are generally amortized on an accelerated basis. Estimated useful lives are determined considering the period the assets are expected to contribute to future cash flows. We evaluate the recoverability of our finite-lived intangible assets periodically and take into account events or circumstances that warrant revised estimates of useful lives or that indicate impairment exists.

In-process technology intangible assets, which are not subject to amortization until projects reach commercialization, are assessed for impairment at least annually and more frequently if events occur that would indicate a potential reduction in the fair value of the assets below their carrying value. An impairment charge would be recognized to the extent the carrying amount of the in-process technology exceeded its fair value.

Long-Lived Assets. We periodically review the carrying amount of our depreciable long-lived assets for impairment. An asset is considered impaired when estimated future cash flows are less than the carrying amount of the asset. In the event the carrying amount of such asset is not considered recoverable, the asset is adjusted to its fair value. Fair value is generally determined based on discounted future cash flow.

Property and Equipment. Property and equipment is stated at the historical cost of construction or purchase. Construction costs include interest costs capitalized during construction. Maintenance and repairs of property and equipment are charged to operations as incurred. Leasehold improvements are amortized over the lesser of the base term of the lease or estimated life of the leasehold improvements. Construction-in-process consists of new buildings and various production equipment being constructed internally and externally. Assets in construction-in-process will commence depreciating once the asset has been placed in service. Depreciation is computed using the straight-line method over estimated useful lives as follows:

Buildings	40 years
Manufacturing equipment	4 - 20 years
Furniture and fixtures	3 - 20 years
Land improvements	10 - 20 years
Leasehold improvements	4 - 25 years

Depreciation expense related to property and equipment for the years ended December 31, 2018, 2017 and 2016 was approximately $28.3 million, $26.8 million, and $24.5 million, respectively.

Deferred Compensation. We have a deferred compensation plan that permits certain management employees to defer a portion of their salary until the future. We established a Rabbi trust to finance obligations under the plan with corporate-owned variable life insurance contracts. The cash surrender value totaled approximately $11.7 million and $11.7 million at December 31, 2018 and 2017, respectively, which is included in other assets in our consolidated balance sheets. We have recorded a deferred compensation payable of approximately $11.2 million and $11.2 million at December 31, 2018 and 2017, respectively, to reflect the liability to our employees under this plan.

Other Assets. Other assets consist of our deferred compensation plan cash surrender value discussed above, unamortized issuance costs on revolving debt, investments in privately-held companies, notes receivable issued to third-parties, a long-term income tax refund receivable, deposits related to various leases, and the long-term assets related to derivatives.

We analyze our investments to determine if they should be accounted for using the equity method based on our ability to exercise significant influence over operating and financial policies of the investment. Our share of earnings associated with equity method investments is reported within other income (expense) in our consolidated statements of income. Investments not accounted for under the equity method of accounting are accounted for under the cost method of accounting wherein impairment charges are recognized if circumstances suggest that the value of the investment has changed.

Deferred Credits. Deferred credits consist of grant money received from the Irish government. Grant money is received for a percentage of expenditures on eligible property and equipment, specific research and development projects and costs of hiring and training employees. Amounts related to the acquisition of property and equipment are amortized as a reduction of depreciation expense over the lives of the corresponding property and equipment.

Revenue Recognition. We sell our medical products through a direct sales force in the U.S. and through OEM relationships, custom procedure tray manufacturers and a combination of direct sales force and independent distributors in international markets. Revenue is recognized when a customer obtains control of promised goods based on the consideration we expect to receive in exchange for these goods. This core principle is achieved through the following steps:

Identify the contract with the customer. A contract with a customer exists when (i) we enter into an enforceable contract with a customer that defines each party's rights regarding the goods to be transferred and identifies the payment terms related to these goods, (ii) the contract has commercial substance and, (iii) we determine that collection of substantially all consideration for services that are transferred is probable based on the customer's intent and ability to pay the promised consideration. We do not

have significant costs to obtain contracts with customers. For commissions on product sales, we have elected the practical expedient to expense the costs as incurred if the amortization period would have been one year or less.

Identify the performance obligations in the contract. Generally, our contracts with customers do not include multiple performance obligations to be completed over a period of time. Our performance obligations generally relate to delivering single-use medical products to a customer, subject to the shipping terms of the contract. Limited warranties are provided, under which we typically accept returns and provide either replacement parts or refunds. We do not have significant returns. We do not typically offer extended warranty or service plans.

Determine the transaction price. Payment by the customer is due under customary fixed payment terms, and we evaluate if collectability is reasonably assured. None of our contracts as of December 31, 2018 contained a significant financing component. Revenue is recorded at the net sales price, which includes estimates of variable consideration such as product returns, rebates, discounts, and other adjustments. The estimates of variable consideration are based on historical payment experience, historical and projected sales data, and current contract terms. Variable consideration is included in revenue only to the extent that it is probable that a significant reversal of the revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Taxes collected from customers relating to product sales and remitted to governmental authorities are excluded from revenues.

Allocate the transaction price to performance obligations in the contract. We typically do not have multiple performance obligations in our contracts with customers. As such, we generally recognize revenue upon transfer of the product to the customer's control at contractually stated pricing.

Recognize revenue when or as we satisfy a performance obligation. We generally satisfy performance obligations at a point in time upon either shipment or delivery of goods, in accordance with the terms of each contract with the customer. We do not have significant service revenue.

Reserves are recorded as a reduction in net sales and are not considered material to our consolidated statements of income for the years ended December 31, 2018, 2017 and 2016. In addition, we invoice our customers for taxes assessed by governmental authorities such as sales tax and value added taxes. We present these taxes on a net basis.

Shipping and Handling. We bill our customers for shipping and handling charges, which are included in net sales for the applicable period, and the corresponding shipping and handling expense is reported in cost of sales.

Cost of Sales. We include product costs (i.e. material, direct labor and overhead costs), shipping and handling expense, product royalty expense, developed technology amortization expense, production-related depreciation expense and product license agreement expense in cost of sales.

Research and Development. Research and development costs are expensed as incurred.

Income Taxes. Under our accounting policies, we initially recognize a tax position in our financial statements when it becomes more likely than not that the position will be sustained upon examination by the tax authorities. Such tax positions are initially and subsequently measured as the largest amount of tax positions that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authorities assuming full knowledge of the position and all relevant facts. Although we believe our provisions for unrecognized tax positions are reasonable, we can make no assurance that the final tax outcome of these matters will not be different from that which we have reflected in our income tax provisions and accruals. The tax law is subject to varied interpretations, and we have taken positions related to certain matters where the law is subject to interpretation. Such differences could have a material impact on our income tax provisions and operating results in the period(s) in which we make such determination.

Earnings per Common Share. Net income per common share is computed by both the basic method, which uses the weighted average number of our common shares outstanding, and the diluted method, which includes the dilutive common shares from stock options and warrants, as calculated using the treasury stock method.

Fair Value Measurements. The fair value of a financial instrument is the amount that could be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. A fair value hierarchy is used to prioritize the quality and reliability of the information used to determine fair values. Categorization within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The fair value hierarchy is defined in the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities.
Level 2: Observable market-based inputs or inputs that are corroborated by market data.
Level 3: Unobservable inputs that are not corroborated by market data.

Stock-Based Compensation. We recognize the fair value compensation cost relating to stock-based payment transactions in accordance with ASC 718, *Compensation — Stock Compensation*. Under the provisions of ASC 718, stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized over the employee's requisite service period, which is generally the vesting period. The fair value of our stock options is estimated using a Black-Scholes option valuation model. Stock-based compensation expense for the years ended December 31, 2018, 2017 and 2016 was approximately $6.1 million, $4.1 million and $2.5 million, respectively.

Concentration of Credit Risk. Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable. We provide credit, in the normal course of business, primarily to hospitals and independent third-party custom procedure tray manufacturers and distributors. We perform ongoing credit evaluations of our customers and maintain allowances for potential credit losses. Sales to our single largest customer accounted for approximately 2%, 2%, and 3% of net sales for the years ended December 31, 2018, 2017 and 2016, respectively.

Foreign Currency. The financial statements of our foreign subsidiaries are measured using local currencies as the functional currency, with the exception of our subsidiaries in Ireland and Mexico, which each use the U.S. Dollar as its functional currency. Assets and liabilities are translated into U.S. Dollars at year-end rates of exchange and results of operations are translated at average rates for the year. Gains and losses resulting from these translations are included in accumulated other comprehensive income (loss) as a separate component of stockholders' equity. Foreign currency transactions denominated in a currency other than the entity's functional currency are included in determining net income for the period.

Derivatives. We use forward contracts to mitigate our exposure to volatility in foreign exchange rates, and we use interest rate swaps to hedge changes in the benchmark interest rate related to our Second Amended Credit Agreement described in Note 8. All derivatives are recognized in the consolidated balance sheets at fair value. Classification of each hedging instrument is based upon whether the maturity of the instrument is less than or greater than 12 months. We do not purchase or hold derivative financial instruments for speculative or trading purposes (see Note 9).

Accumulated Other Comprehensive Income (Loss). As of December 31, 2018, accumulated other comprehensive loss included approximately $3.5 million (net of tax of $(2.2) million) related to cash flow hedges and $(5.6) million (net of tax of $(9,000)) related to foreign currency translation. As of December 31, 2017, accumulated other comprehensive income included approximately $3.5 million (net of tax of $(2.2) million) related to cash flow hedges and $(1.9) million (net of tax of $0) related to foreign currency translation.

New Financial Accounting Standards.

Recently Adopted

In October 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other than Inventory*, which requires the recognition of the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. ASU 2016-16 became effective for us as of January 1, 2018. The adoption of ASU 2016-16 did not have a material impact on our consolidated financial statements for the year ended December 31, 2018.

In August 2016, the FASB issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*, which addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. ASU 2016-15 became effective for us on January 1, 2018. The adoption of ASU 2016-15 did not have a material impact on our consolidated financial statements for the year ended December 31, 2018.

In January 2016, the FASB issued ASU No. 2016-01, *Financial Instruments - Overall: Recognition and Measurement of Financial Assets and Financial Liabilities*, which amends the guidance regarding the classification and measurement of financial instruments. Changes to the current guidance primarily affect the accounting for equity investments, financial liabilities under the fair value option, and the presentation and disclosure requirements for financial instruments. In addition, ASU 2016-01 clarifies guidance related to the valuation allowance assessment when recognizing deferred tax assets resulting from unrealized losses on

available-for-sale debt securities. We adopted ASU 2016-01 on January 1, 2018. The adoption of ASU 2016-01 did not have a material impact on our consolidated financial statements for the year ended December 31, 2018.

The FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which provides a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. We adopted this ASU (and all subsequent ASUs that modified Topic 606) effective January 1, 2018 on a modified retrospective basis. Adoption of this standard did not result in significant changes to our accounting policies, business processes, systems or controls, or have a material impact on our financial position, results of operations or cash flows. As such, prior period amounts are not adjusted and continue to be reported under accounting standards then in effect, and we did not record a cumulative adjustment to the opening equity balance of retained earnings as of January 1, 2018. However, additional disclosures have been added in accordance with the requirements of Topic 606 and are reflected in Note 2.

Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, ("ASC 842"). The objective of the guidance in ASC 842 is to increase transparency and comparability among organizations by recognizing lease assets and liabilities in the balance sheet and disclosing key information. ASC 842 amends previous lease guidance to require a lessee to recognize a lease liability and a right-of-use asset on the entity's balance sheet for all leases with terms that exceed one year. ASC 842 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. ASC 842 provides that lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented.

We have completed our assessment of all our leases, and we estimate that the impact of the adoption of ASC 842 will result in recognition of operating right-of-use assets and lease liabilities of approximately $80 million. We do not expect the adoption to have a material impact on our statements of operations or cash flows. ASC 842 allows for several practical expedients which permit the following: no reassessment of lease classification or initial direct costs; use of the standard's effective date as the date of initial application; and no separation of non-lease components from the related lease components and, instead, to account for those components as a single lease component if certain criteria are met. We expect to elect these practical expedients and adopt ASC 842 on January 1, 2019 using the effective date as our date of initial application. Therefore, financial information and disclosures under ASC 842 will not be provided for periods prior to January 1, 2019.

In February 2018, the FASB issued ASU 2018-02, *Income Statement-Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act enacted in December 2017. ASU 2018-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We do not believe that the adoption of ASU 2018-02 will have a material impact on our consolidated financial statements.

In August 2017, the FASB issued ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, which expands and refines hedge accounting for both financial and non-financial risk components, aligns the recognition and presentation of the effects of hedging instruments and hedge items in the financial statements, and includes certain targeted improvements to ease the application of current guidance related to the assessment of hedge effectiveness. ASU 2017-12 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We do not anticipate the impact of adopting ASU 2017-12 will be material to our consolidated financial statements.

All other issued and not yet effective accounting standards are not relevant to our financial statements.

2. REVENUES

The following table presents sales by operating segment disaggregated based on type of product and geographic region for the years ended December 31, 2018, 2017 and 2016.

	Year Ended December 31, 2018			Year Ended December 31, 2017			Year Ended December 31, 2016		
	United States	International	Total	United States	International	Total	United States	International	Total
Cardiovascular									
Stand-alone devices	$ 202,129	$ 159,484	$ 361,613	$ 148,620	$ 126,836	$ 275,456	$ 105,250	$ 85,877	$ 191,127
Cianna Medical	6,292	—	6,292	—	—	—	—	—	—
Custom kits and procedure trays	92,975	41,781	134,756	92,474	33,615	126,089	93,109	26,138	119,247
Inflation devices	31,717	60,702	92,419	31,848	48,027	79,875	35,506	38,410	73,916
Catheters	68,708	86,817	155,525	62,284	65,463	127,747	56,899	56,468	113,367
Embolization devices	20,433	29,605	50,038	22,374	27,158	49,532	24,075	21,960	46,035
CRM/EP	41,970	6,864	48,834	36,746	5,168	41,914	32,561	3,898	36,459
Total	464,224	385,253	849,477	394,346	306,267	700,613	347,400	232,751	580,151
Endoscopy									
Endoscopy devices	32,189	1,087	33,276	26,357	882	27,239	22,950	737	23,687
Total	$ 496,413	$ 386,340	$ 882,753	$ 420,703	$ 307,149	$ 727,852	$ 370,350	$ 233,488	$ 603,838

Note: Certain revenue categories for 2017 and 2016 have been adjusted from prior disclosures to reflect changes in product classifications to be consistent with updates in management of our product portfolios during 2018. Also note that Cianna Medical is a new category in 2018 as a result of the acquisition in November 2018 (see Note 3).

3. ACQUISITIONS

On December 14, 2018, we consummated an acquisition transaction contemplated by an asset purchase agreement with Vascular Insights, LLC and VI Management, Inc. (combined "Vascular Insights") and acquired Vascular Insight's intellectual property rights, inventory and certain other assets, including, the ClariVein® IC system and the ClariVein OC system. The ClariVein systems are specialty infusion and occlusion catheter systems with rotating wire tips designed for the controlled 360-degree dispersion of physician-specified agents to the targeted treatment area. We accounted for this acquisition as a business combination. The purchase consideration included an upfront payment of $40 million, and we are obligated to pay up to an additional $20 million based on achieving certain revenue milestones specified in the asset purchase agreement. The sales and results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date and were not material. Acquisition-related costs associated with the Vascular Insights acquisition, which were included in selling, general and administrative expenses in our consolidated statements of income, were not material. Given the circumstances of this acquisition, which closed in December 2018, as well as the complexity of the transaction, the purchase price allocation disclosed herein is considered provisional at this time and subject to adjustment. We are in the process of finalizing the net working capital adjustment pursuant to the asset purchase agreement and the valuation of the acquired intangible assets and contingent consideration. The purchase price was preliminarily allocated as follows (in thousands):

Inventories	$ 1,308
Intangibles	
Developed technology	32,830
Customer list	840
Trademarks	1,410
Goodwill	21,832
Total assets acquired	**$ 58,220**

We are amortizing the developed technology intangible assets over 12 years, the related trademarks over nine years and the customer list on an accelerated basis over eight years. The total weighted-average amortization period for these acquired intangible assets is approximately 11.8 years.

On November 13, 2018 we consummated an acquisition transaction contemplated by a merger agreement to acquire Cianna Medical, Inc. ("Cianna Medical"). The purchase consideration consisted of an upfront payment of $135 million plus an

initial working capital adjustment of $1 million in cash, with potential earn-out payments of an additional $15 million for achievement of supply chain and scalability metrics, and up to an additional $50 million for achievement of sales milestones. Cianna Medical developed the first non-radioactive, wire-free breast cancer localization system. Its SCOUT® and SAVI® Brachy technologies are FDA-cleared and address unmet needs in the delivery of radiation therapy, tumor localization and surgical guidance. We accounted for this acquisition as a business combination. During the year ended December 31, 2018, our net sales of Cianna Medical products were approximately $6.3 million. It is not practical to separately report earnings related to the products acquired from Cianna Medical, as we cannot split out sales costs related solely to the products we acquired from Cianna Medical, principally because our sales representatives sell multiple products (including the products we acquired from Cianna Medical) in our cardiovascular business segment. Acquisition-related costs associated with the Cianna Medical acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were approximately $3.5 million for the year ended December 31, 2018. The following table summarizes the preliminary purchase price allocated to the net assets acquired from Cianna Medical (in thousands):

Assets Acquired		
Trade receivables	$	6,151
Inventories		5,803
Prepaid expenses and other assets		315
Property and equipment		1,047
Other long-term assets		14
Intangibles		
Developed technology		134,510
Customer lists		3,330
Trademarks		7,080
Goodwill		65,885
Total assets acquired		224,135
Liabilities Assumed		
Trade payables		(1,497)
Accrued expenses		(2,384)
Other long-term liabilities		(1,527)
Deferred tax liabilities		(30,363)
Total liabilities assumed		(35,771)
Total net assets acquired	$	188,364

We are amortizing the developed technology intangible assets over 11 years, the related trademarks over ten years and the customer lists on an accelerated basis over eight years. The total weighted-average amortization period for these acquired intangible assets is approximately 10.7 years.

During July 2018, we purchased 1,786,000 preferred limited liability company units of Cagent Vascular, LLC, a medical device company ("Cagent"), for approximately $2.2 million. We had previously purchased 3,000,000 preferred limited liability company units for approximately $3.0 million during 2016 and 2017. Our investment has been recorded as an equity investment accounted for at cost and reflected within other assets in the accompanying consolidated balance sheets because we are not able to exercise significant influence over the operations of Cagent. Our total current investment in Cagent represents an ownership of approximately 19.5% of the outstanding stock.

On May 23, 2018, we entered into an asset purchase agreement with DirectACCESS Medical, LLC (“DirectACCESS”) to acquire its assets, including, certain product distribution agreements for the FirstChoice™ Ultra High Pressure PTA Balloon Catheter. We accounted for this acquisition as a business combination. The purchase price for the assets was approximately $7.3 million. The sales and results of operations related to the acquisition have been included in our cardiovascular segment since the acquisition date and were not material. Acquisition-related costs associated with the DirectACCESS acquisition, which were included in selling, general and administrative expenses in our consolidated statements of income, were not material. The purchase price was preliminarily allocated as follows (in thousands):

Inventories	$	971
Intangibles		
Developed technology		4,840
Customer list		120
Trademarks		400
Goodwill		938
Total assets acquired	**$**	**7,269**

We are amortizing the developed technology intangible asset over ten years, the related trademarks over ten years and the customer list on an accelerated basis over five years. The total weighted-average amortization period for these acquired intangible assets is approximately 9.9 years.

On May 18, 2018, we paid $750,000 for a distribution agreement with QXMédical, LLC ("QXMédical") for the Q50® PLUS Stent Graft Balloon Catheter. We accounted for this acquisition as an asset purchase. We are amortizing the distribution agreement intangible asset over a period of ten years.

On April 6, 2018, we entered into long-term agreements with NinePoint Medical, Inc. (“NinePoint”), pursuant to which we (a) became the exclusive worldwide distributor for the NvisionVLE® Imaging System with Real-time Targeting™ using Optical Coherence Tomography (OCT) and (b) acquired an option to purchase up to 100% of the outstanding equity in NinePoint throughout a three-month period commencing 18 months subsequent to the agreement date, both in exchange for total consideration of $10 million. We accounted for this transaction as an asset purchase. In addition, we made a loan to NinePoint for $10.5 million with a maturity date of April 6, 2023, at which time the loan, together with accrued interest thereon, will be due and payable. The loan bears interest at a rate of 9.0% and is collateralized by NinePoint's rights, interest and title to the NvisionVLE® Imaging System and any other product owned or licensed by NinePoint utilizing OCT. This loan has been recorded as a note receivable within other long-term assets in our consolidated balance sheets.

We utilized the consolidation of variable interest entities guidance to determine whether or not NinePoint was a variable interest entity ("VIE"), and if so, whether we are the primary beneficiary of NinePoint. As of December 31, 2018, we concluded that NinePoint is a VIE based on the fact that the equity investment at risk in NinePoint is not sufficient to finance its activities. We have also determined that Merit is not the primary beneficiary of NinePoint as we do not have the power to direct NinePoint's most significant activities. Our exposure to loss related to our transaction with NinePoint is the carrying value of the amounts paid to and due from NinePoint. The results of operations related to the NinePoint distribution agreement have been included in our endoscopy segment since the acquisition date. During the year ended December 31, 2018, our net sales of NinePoint products were approximately $3.0 million. We believe the NinePoint products will enhance the product offerings of our Endotek operating segment and will be another step in our strategy to add therapy and disease-state products to our portfolio.

On February 14, 2018, we acquired certain divested assets from Becton, Dickinson and Company ("BD"), for an aggregate purchase price of $100.3 million. We also recorded a contingent consideration liability of $1.6 million related to milestone payments payable pursuant to the terms of the acquired contract with Sontina Medical LLC. The assets acquired include the soft tissue core needle biopsy products sold under the tradenames of Achieve® Programmable Automatic Biopsy System, Temno® Biopsy System, Tru-Cut® Biopsy Needles as well as Aspira® Pleural Effusion Drainage Kits, and the Aspira® Peritoneal Drainage System. We accounted for this acquisition as a business combination.

During the year ended December 31, 2018, our net sales of BD products were approximately $42.1 million. It is not practical to separately report earnings related to the products acquired from BD, as we cannot split out sales costs related solely to the products we acquired from BD, principally because our sales representatives sell multiple products (including the products we acquired from BD) in our cardiovascular business segment. Acquisition-related costs associated with the BD acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were approximately $1.8 million for the year ended December 31, 2018. During the measurement period, which ended in December 2018, adjustments were made to finalize the allocation of purchase price related to intangible assets, goodwill and contingent liabilities. The following table summarizes the purchase price allocated to the assets acquired from BD (in thousands):

Inventories	$	5,804
Property and equipment		748
Intangibles		
Developed technology		74,000
Customer list		4,200
Trademarks		4,900
In-process technology		2,500
Goodwill		9,728
Total assets acquired	**$**	**101,880**

We are amortizing the developed technology intangible assets over eight years, the related trademarks over nine years, and the customer lists on an accelerated basis over seven years. The total weighted-average amortization period for these acquired intangible assets is approximately 8 years.

On October 2, 2017 we acquired a custom procedure pack business located in Melbourne, Australia from ITL Healthcare Pty Ltd. ("ITL"), for an aggregate purchase price of $11.3 million. We accounted for this acquisition as a business combination. The following table summarizes the aggregate purchase price allocated to the assets acquired from ITL (in thousands):

Assets Acquired		
Trade receivables	$	1,287
Other receivables		56
Inventories		1,808
Prepaid expenses and other assets		65
Property and equipment		1,053
Intangibles		
Customer lists		5,940
Goodwill		3,945
Total assets acquired		14,154
Liabilities Assumed		
Trade payables		(216)
Accrued expenses		(747)
Deferred tax liabilities		(1,901)
Total liabilities assumed		(2,864)
Total net assets acquired	$	11,290

We are amortizing the customer list on an accelerated basis over seven years. Acquisition-related costs associated with the ITL acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were not material. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018 and 2017, our net sales of ITL products were approximately $8.0 million and $3.3 million, respectively. It is not practical to separately report the earnings related to the ITL acquisition, as we cannot split out sales costs related solely to the products we acquired from ITL, principally because our sales representatives sell multiple products (including the products we acquired from ITL) in our cardiovascular business segment.

On September 1, 2017, we acquired intellectual property rights associated with a steerable guidewire system from IntelliMedical Technologies Pty. Ltd. ("IntelliMedical"). We made an initial payment of approximately $11.9 million in September 2017, and we are obligated to pay up to an additional A$15.0 million (Australian dollars) if certain milestones set forth in the share purchase agreement with IntelliMedical are achieved. We are also required to pay royalties equal to 6% of net sales, commencing upon the first commercial sale of the product and throughout the term of the applicable patents. We accounted for this transaction as an asset purchase. The initial payment has been included in the accompanying consolidated statements of income as acquired

in-process research and development expense for the year ended December 31, 2017, because both technological feasibility of the underlying research and development project had not yet been reached and such technology had no identified future alternative use as of the date of acquisition.

On August 4, 2017 we acquired from Laurane Medical S.A.S. ("Laurane") and its shareholders inventories and the intellectual property rights associated with certain manual bone biopsy devices, manual bone marrow needles and muscle biopsy kits for an aggregate purchase price of $16.5 million. We also recorded a contingent consideration liability of $5.5 million related to royalties potentially payable to Laurane's shareholders pursuant to the terms of an intellectual property purchase agreement. We accounted for this acquisition as a business combination. The following table summarizes the aggregate purchase price (including contingent royalty payment liabilities) allocated to the assets acquired from Laurane (in thousands):

Inventories	$	594
Intangibles		
Developed technology		14,920
Customer list		120
Goodwill		6,366
Total net assets acquired	**$**	**22,000**

We are amortizing the developed technology intangible asset over 12 years and the customer list on an accelerated basis over one year. The total weighted-average amortization period for these acquired intangible assets is 11.9 years. The sales and results of operations related to the acquisition have been included in our cardiovascular segment since the acquisition date and were not material. Acquisition-related costs associated with the Laurane acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were not material.

On July 3, 2017, we acquired from Osseon LLC (“Osseon”) substantially all the assets related to Osseon’s vertebral augmentation products. We accounted for this acquisition as a business combination. The purchase price for the assets was approximately $6.8 million. Acquisition-related costs associated with the Osseon acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were not material. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018 and 2017, our net sales of Osseon products were approximately $2.1 million and $942,000, respectively. It is not practical to separately report the earnings related to the Osseon acquisition, as we cannot split out sales costs related solely to the products we acquired from Osseon, principally because our sales representatives sell multiple products (including the products we acquired from Osseon) in our cardiovascular business segment. The following table summarizes the purchase price allocated to the assets acquired (in thousands):

Inventories	$	979
Property and equipment		58
Intangibles		
Developed technology		5,400
Customer list		200
Goodwill		203
Total net assets acquired	**$**	**6,840**

We are amortizing the developed technology intangible asset over nine years and customer lists on an accelerated basis over eight years. The total weighted-average amortization period for these acquired intangible assets is approximately 9.0 years.

On July 1, 2017, we entered into an exclusive license agreement with Pleuratech ApS ("Pleuratech") to acquire the rights to manufacture and sell the KatGuide™ chest tube insertion tool. As of December 31, 2018, we had paid $2.0 million in connection with this agreement. We are obligated to pay an additional $5.0 million if certain milestones set forth in the license agreement are met. We are also required to pay royalties equal to 6% of net sales throughout the term of the license agreement. We accounted for this transaction as an asset purchase. We recorded the amount paid upon closing as a license agreement intangible asset, which we are amortizing over 15 years.

On June 16, 2017, we acquired from Lazarus Medical Technologies, LLC the patent rights and other intellectual property related to the Repositionable Chest Tube™ and related devices. As of December 31, 2018, we had paid $620,000 in connection

with this agreement. We are also obligated to pay an additional $700,000 if certain milestones set forth in the purchase agreement are met. We are also required to pay royalties equal to 6% of net sales throughout the term of the purchase agreement. We accounted for this transaction as an asset purchase. We recorded the amount paid upon closing as a license agreement intangible asset, which we are amortizing over 15 years.

On May 23, 2017, we paid $2.5 million to acquire 182,000 shares of preferred stock of Fusion Medical, Inc. ("Fusion"), a developer of medical devices designed primarily for clot removal. The shares of preferred stock we acquired, which represent an ownership interest of approximately 19.5%, have been accounted for as an equity method investment of $2.5 million reflected within other assets in the accompanying consolidated balance sheets because we may be deemed to exercise significant influence over the operations of Fusion.

On May 19, 2017, we terminated our distribution agreement with Sheen Man Co., Ltd. and Sugan Co, Ltd., ("Sugan"), a Japanese medical device distributor and entered into a business purchase agreement, distribution agreement and a supply agreement with Sugan. Pursuant to these agreements, we acquired the customer list Sugan used in the distribution of our products in Japan. The purchase price is recorded as a customer list intangible asset of approximately $1.2 million. We are amortizing the customer list intangible asset on an accelerated basis over five years. In addition, we granted to Sugan the right to continue to distribute a limited number of our products, related to fluid administration, through December 31, 2021 and to manufacture and sell to Sugan certain contrast injector products during a term of four years, subject to extensions.

On May 1, 2017, we entered into an agreement and plan of merger with Vascular Access Technologies, Inc. ("VAT"), pursuant to which we acquired the SAFECVAD™ device. We accounted for this acquisition as a business combination. The purchase price for the business was $5.0 million. We also recorded $4.9 million of contingent consideration related to royalties potentially payable to VAT pursuant to the merger agreement. The following table summarizes the purchase price allocated to the net assets acquired and liabilities assumed (in thousands):

Intangibles		
Developed technology	$	7,800
In-process technology		920
Goodwill		4,281
Deferred tax liabilities		(3,101)
Total net assets acquired	$	9,900

We are amortizing the developed technology intangible asset over 15 years. The sales and results of operations related to the acquisition have been included in our cardiovascular segment since the acquisition date and were not material. Acquisition-related costs associated with the VAT acquisition, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were not material.

On January 31, 2017, we acquired Argon’s critical care division, including a manufacturing facility in Singapore, the related commercial operations in Europe and Japan, and certain inventories and intellectual property rights within the U.S. We made an initial payment of approximately $10.9 million and received a subsequent reduction to the purchase price of approximately $797,000 related to a working capital adjustment according to the terms of the purchase agreement. We accounted for the acquisition as a business combination.

Acquisition-related costs associated with the acquisition of the Argon critical care division during the year ended December 31, 2017, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were approximately $2.6 million. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018 and 2017, our net sales of the Argon critical care products were approximately $45.5 million and $41.2 million, respectively. It is not practical to separately report the earnings related to the Argon critical care acquisition, as we cannot split out sales costs related solely to the products we acquired from Argon, principally because our sales representatives sell multiple products (including the products we acquired from Argon) in our cardiovascular business segment.

The assets and liabilities in the purchase price allocation for the Argon critical care acquisition are stated at fair value based on estimates of fair value using available information and making assumptions our management believes are reasonable. The following table summarizes the purchase price allocated to the net tangible and intangible assets acquired and liabilities assumed (in thousands):

Assets Acquired		
Cash and cash equivalents	$	1,436
Trade receivables		8,351
Inventories		11,222
Prepaid expenses and other assets		1,275
Income tax refund receivable		165
Property and equipment		2,319
Deferred tax assets		202
Intangibles		
Developed technology		2,200
Customer lists		1,500
Trademarks		900
Total assets acquired		29,570
Liabilities Assumed		
Trade payables		(2,414)
Accrued expenses		(5,083)
Income taxes payable		—
Deferred income tax liabilities		(934)
Total liabilities assumed		(8,431)
Total net assets acquired		21,139
Gain on bargain purchase [(1)]		(11,039)
Total purchase price	$	10,100

(1) The total fair value of the net assets acquired from Argon exceeded the purchase price, resulting in a gain on bargain purchase which was recorded within other income (expense) in our consolidated statements of income. We believe the reason for the gain on bargain purchase was a result of the divestiture of a non-strategic, slow-growth critical care business for Argon. It is our understanding that the divestiture allows Argon to focus on its higher growth interventional portfolio.

With respect to the Argon critical care assets, we are amortizing developed technology over seven years and customer lists on an accelerated basis over five years. While U.S. trademarks can be renewed indefinitely, we currently estimate that we will generate cash flow from the acquired trademarks for a period of five years from the acquisition date. The total weighted-average amortization period for these acquired intangible assets is 6.0 years.

On January 31, 2017, we acquired substantially all the assets, including intellectual property covered by approximately 40 patents and pending applications, and assumed certain liabilities, of Catheter Connections, Inc. (“Catheter Connections”), in exchange for payment of $38.0 million. Catheter Connections, based in Salt Lake City, Utah, developed and marketed the DualCap® System, an innovative family of disinfecting products designed to protect patients from intravenous infections resulting from infusion therapy. We accounted for this acquisition as a business combination.

Acquisition-related costs associated with the Catheter Connections acquisition during the year ended December 31, 2017, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were approximately $482,000. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018 and 2017, our net sales of the products acquired from Catheter Connections were approximately $13.7 million and $10.0 million, respectively. It is not practical to separately report the earnings related to the products acquired from Catheter Connections, as we cannot split out sales costs related solely to those products, principally because our sales representatives sell multiple products (including the DualCap System) in the cardiovascular business segment. The purchase price was allocated as follows (in thousands):

Assets Acquired		
Trade receivables	$	958
Inventories		2,157
Prepaid expenses and other assets		85
Property and equipment		1,472
Intangibles		
Developed technology		21,100
Customer lists		700
Trademarks		2,900
Goodwill		8,989
Total assets acquired		38,361
Liabilities Assumed		
Trade payables		(338)
Accrued expenses		(23)
Total liabilities assumed		(361)
Net assets acquired	$	38,000

We are amortizing the Catheter Connections developed technology asset over 12 years, the related trademarks over ten years, and the associated customer list over eight years. We have estimated the weighted average life of the intangible Catheter Connections assets acquired to be approximately 11.7 years.

On December 19, 2016, we paid $5.0 million for 1,251,878 shares of common stock and a distribution agreement with Bluegrass Vascular Technologies, Inc. ("Bluegrass"). The common stock, which represents an ownership interest of approximately 19.5%, has been accounted for as a cost method investment of $4.0 million reflected within other assets in the accompanying consolidated balance sheets because we are not able to exercise significant influence over the operations of Bluegrass. The distribution agreement intangible asset was valued at $1.0 million and will be amortized over a period of three years.

On July 6, 2016, we acquired all of the issued and outstanding shares of DFINE Inc. ("DFINE"). The DFINE acquisition added a line of vertebral augmentation products for the treatment of vertebral compression fractures ("VCF") as well as medical devices used to treat metastatic spine tumors. We made an initial payment of $97.5 million to certain DFINE stockholders on July 6, 2016 and paid approximately $578,000 related to a net working capital adjustment subject to review by Merit and the preferred stockholders of DFINE. We accounted for the acquisition as a business combination. In the three-month period ended December 31, 2016, we negotiated the final net working capital adjustment resulting in a reduction to the purchase price of approximately $1.1 million. As a result, we recorded measurement period adjustments to reduce inventories by approximately $89,000, reduce property and equipment by approximately $109,000, reduce goodwill by approximately $1.2 million, reduce accrued expenses by approximately $407,000 and increase the associated deferred tax liabilities by approximately $113,000. Under U.S. GAAP, measurement period adjustments are recognized on a prospective basis in the period of change, instead of restating prior periods. There was no impact to reported earnings in connection with these measurement period adjustments.

Acquisition-related costs during the year ended December 31, 2016, which are included in selling, general, and administrative expenses in the accompanying consolidated statements of income, were approximately $1.6 million. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018, 2017 and 2016, our net sales of DFINE products were approximately $26.6 million, $27.0 million and $13.5 million, respectively. It is not practical to separately report the earnings related to the DFINE acquisition, as we cannot split out sales costs related to DFINE products, principally because our sales representatives are selling multiple products (including DFINE products) in the cardiovascular business segment.

The purchase price was allocated to the net tangible and intangible assets acquired and liabilities assumed, based on estimated fair values, as follows (in thousands):

Assets Acquired		
Trade receivables	$	4,054
Other receivables		6
Inventories		8,585
Prepaid expenses		630
Property and equipment		1,630
Other long-term assets		145
Intangibles		
Developed technology		67,600
Customer lists		2,400
Trademarks		4,400
Goodwill		24,818
Total assets acquired		114,268
Liabilities Assumed		
Trade payables		(1,790)
Accrued expenses		(5,298)
Deferred income tax liabilities - current		(701)
Deferred income tax liabilities - noncurrent		(10,844)
Total liabilities assumed		(18,633)
Net assets acquired, net of cash received of $1,327	$	95,635

The gross amount of trade receivables we acquired in the acquisition was approximately $4.3 million, of which approximately $224,000 was expected to be uncollectible or returned. With respect to the DFINE assets, we are amortizing developed technology over 15 years and customer lists on an accelerated basis over nine years. While U.S. trademarks can be renewed indefinitely, we currently estimate that we will generate cash flow from the acquired trademarks for a period of 15 years from the acquisition date. The total weighted-average amortization period for these acquired intangible assets is 14.8 years.

On February 4, 2016, we purchased the HeRO® Graft device and other related assets from CryoLife, Inc., a developer of medical devices based in Kennesaw, Georgia ("CryoLife"). The HeRO Graft is a fully subcutaneous vascular access system intended for use in maintaining long-term vascular access for chronic hemodialysis patients who have failing fistulas, grafts or are catheter dependent due to a central venous blockage. The purchase price was $18.5 million, which was paid in full during 2016. We accounted for this acquisition as a business combination. The purchase price was allocated as follows (in thousands):

Assets Acquired		
Inventories	$	2,455
Property and equipment		290
Intangibles		
Developed technology		12,100
Trademarks		700
Customers Lists		400
Goodwill		2,555
Total assets acquired	$	18,500

We are amortizing the developed HeRO Graft technology asset over ten years, the related trademarks over 5.5 years, and the associated customer lists over 12 years. We have estimated the weighted average life of the intangible HeRO Graft assets acquired to be approximately 9.8 years. Acquisition-related costs related to the HeRO Graft device and other related assets during the year ended December 31, 2016, which are included in selling, general and administrative expenses in the accompanying consolidated statements of income, were not material. The results of operations related to this acquisition have been included in our cardiovascular segment since the acquisition date. During the years ended December 31, 2018, 2017 and 2016, our net sales of the products acquired from CryoLife were approximately $9.1 million, $8.6 million and $7.1 million, respectively. It is not practical to separately

report the earnings related to the products acquired from CryoLife, as we cannot split out sales costs related to those products, principally because our sales representatives are selling multiple products (including the HeRO Graft device) in the cardiovascular business segment.

The following table summarizes our consolidated results of operations for the years ended December 31, 2018, 2017 and 2016, as well as unaudited pro forma consolidated results of operations as though the DFINE acquisition had occurred on January 1, 2015, the acquisition of the Argon critical care division had occurred on January 1, 2016 and the acquisition of Cianna Medical and Vascular Insights had occurred on January 1, 2017 (in thousands, except per common share amounts):

	2018		2017		2016	
	As Reported	Pro Forma	As Reported	Pro Forma	As Reported	Pro Forma
Net sales	$ 882,753	$ 928,336	$ 727,852	$ 768,571	$ 603,838	$ 664,366
Net income (loss)	42,017	20,699	27,523	(13,720)	20,121	23,054
Earnings per common share:						
Basic	$ 0.80	$ 0.40	$ 0.56	$ (0.28)	$ 0.45	$ 0.52
Diluted	$ 0.78	$ 0.38	$ 0.55	$ (0.27)	$ 0.45	$ 0.51

The unaudited pro forma information set forth above is for informational purposes only and includes adjustments related to the step-up of acquired inventories, amortization expense of acquired intangible assets, stock-based compensation for cancelled or forfeited options, interest expense on long-term debt and changes in the timing of the recognition of the gain on bargain purchase. The pro forma information should not be considered indicative of actual results that would have been achieved if the acquisition of Cianna Medical and Vascular Insights had occurred on January 1, 2017, the acquisition of the Argon critical care division had occurred on January 1, 2016, or the acquisition of DFINE had occurred on January 1, 2015, or results that may be obtained in any future period. The pro forma consolidated results of operations do not include the acquisition of assets from BD because it was deemed impracticable to obtain information to determine net income associated with the acquired product lines which represent a small product line of a large, consolidated company without standalone financial information. The pro forma consolidated results of operations do not include the DirectACCESS, ITL, Laurane, Osseon, VAT, Catheter Connections or HeRO Graft acquisitions as we do not deem the pro forma effect of these transactions to be material.

The goodwill arising from the acquisitions discussed above consists largely of the synergies and economies of scale we hope to achieve from combining the acquired assets and operations with our historical operations (see Note 5). The goodwill recognized from certain acquisitions is expected to be deductible for income tax purposes.

4. INVENTORIES

Inventories at December 31, 2018 and 2017, consisted of the following (in thousands):

	2018	2017
Finished goods	$ 117,703	$ 86,555
Work-in-process	14,380	12,799
Raw materials	65,453	55,934
Total	$ 197,536	$ 155,288

5. GOODWILL AND INTANGIBLE ASSETS

The changes in the carrying amount of goodwill for the years ended December 31, 2018 and 2017, are as follows (in thousands):

	2018	2017
Goodwill balance at January 1	$ 238,147	$ 211,927
Effect of foreign exchange	(1,304)	2,641
Additions as the result of acquisitions	98,590	23,579
Goodwill balance at December 31	$ 335,433	$ 238,147

Total accumulated goodwill impairment losses aggregated to $8.3 million as of December 31, 2018 and 2017. We did not have any goodwill impairments for the years ended December 31, 2018, 2017 and 2016. The total goodwill balance as of December 31, 2018 and 2017, is related to our cardiovascular segment.

Other intangible assets at December 31, 2018 and 2017, consisted of the following (in thousands):

	2018		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents	$ 19,378	$ (5,012)	$ 14,366
Distribution agreements	8,012	(5,766)	2,246
License agreements	26,930	(7,411)	19,519
Trademarks	29,998	(6,586)	23,412
Covenants not to compete	1,028	(1,000)	28
Customer lists	39,936	(23,361)	16,575
In-process technology	3,420	—	3,420
Total	$ 128,702	$ (49,136)	$ 79,566

	2017		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents	$ 16,528	$ (3,737)	$ 12,791
Distribution agreements	7,262	(4,686)	2,576
License agreements	23,783	(5,568)	18,215
Trademarks	16,224	(4,686)	11,538
Covenants not to compete	1,028	(968)	60
Customer lists	31,935	(18,482)	13,453
In-process technology	920	—	920
Total	$ 97,680	$ (38,127)	$ 59,553

Aggregate amortization expense for the years ended December 31, 2018, 2017 and 2016 was approximately $41.2 million, $26.8 million and $19.3 million, respectively.

We evaluate long-lived assets, including amortizing intangible assets, for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. We perform the impairment analysis at the asset group for which the lowest level of identifiable cash flows are largely independent of the cash flows of other assets and liabilities. We compare the carrying value of the amortizing intangible assets acquired to the undiscounted cash flows expected to result from the asset group and determine whether the carrying amount is recoverable. We determine the fair value of our amortizing assets based on estimated future cash flows discounted back to their present value using a discount rate that reflects the risk profiles of the underlying activities. During the years ended December 31, 2018 and 2017, we recorded impairment charges of $657,000, related to our July 2015 acquisition of certain assets from Quellent, LLC, and $809,000, related to our July 2015 acquisition of certain assets from Distal Access, LLC, respectively, all of which pertained to our cardiovascular segment. Some of the factors that influenced our estimated cash flows were slower than anticipated sales growth in the products acquired from our Quellent and Distal Access acquisitions and uncertainty about future sales growth. We did not record any impairment charges during the year ended December 31, 2016.

Estimated amortization expense for the developed technology and other intangible assets for the next five years consists of the following as of December 31, 2018 (in thousands):

Year Ending December 31	
2019	$ 58,035
2020	55,341
2021	48,084
2022	46,648
2023	45,417

6. INCOME TAXES

On December 22, 2017, U.S. federal tax legislation, commonly referred to as the Tax Cuts and Jobs Act (“TCJA”) was signed into law. Significant provisions that have impacted (and will in the future impact) our effective tax rate include the reduction in the corporate tax rate from 35% to 21%, effective in 2018; a one-time deemed repatriation (“transition tax”) on earnings of certain foreign subsidiaries that were previously tax deferred; and new taxes on certain foreign sourced earnings. At December 31, 2017, we had not completed our accounting for the tax effects of the TCJA; however, in certain cases, as described below, we made reasonable estimates of the effects on our existing deferred tax balances and impact of the one-time transition tax. In accordance with SEC Staff Accounting Bulletin 118 (“SAB 118”), income tax effects of the TCJA may be refined upon obtaining, preparing, and/or analyzing additional information during the measurement period and such changes could be material. During the measurement period, provisional amounts may also be adjusted for the effects, if any, of interpretative guidance issued after December 31, 2017, by U.S. regulatory and standard-setting bodies.

As of December 31, 2017, we were able to determine a reasonable estimate and recognize the provisional impacts of the rate reduction on our existing deferred tax balances and the impact of the transition tax. The reduction in the U.S. corporate tax rate resulted in a net tax benefit of approximately $8.4 million related to the revaluation of our U.S. net deferred tax liability. The transition tax resulted in a one-time tax expense of approximately $10.6 million.

As of December 31, 2018, we have revised these estimated amounts based upon further analysis of the TCJA and notices and regulations issued and proposed by the U.S. Department of Treasury and the Internal Revenue Service. We recognized an additional tax benefit of approximately $71,000 on the difference between the 2017 U.S. enacted tax rate of 35%, and the 2018 enacted tax rate of 21%. We recognized a tax benefit of approximately $3.3 million from the revised transition tax calculation, which included the completion of our calculation of the total post-1986 foreign earnings and profits ("E&P") of our foreign subsidiaries, and related foreign tax credits. We elected to pay our transition tax over the eight-year period provided by the TCJA.

For tax years beginning after December 31, 2017, the TCJA introduces new provisions of U.S. taxation of certain Global Intangible Low-Tax Income ("GILTI"). The FASB provided guidance that companies should make an accounting policy election to either treat taxes on GILTI as period costs or use the deferred method. We have elected to treat taxes on GILTI as period costs and recognized tax expense of approximately $347,000 in December 2018.

As of December 31, 2018, we have completed our accounting for the tax effects of the enactment of the TCJA; however, we continue to expect U.S. regulatory and standard-setting bodies to issue guidance and regulations that could have a material financial statement impact on our effective tax rate in future periods.

We have historically asserted indefinite reinvestment of the earnings of certain non-U.S. subsidiaries outside the U.S. The TCJA eliminated certain material tax effects on the repatriation of cash to the U.S. As such, future repatriation of cash and other property held by our foreign subsidiaries will generally not be subject to U.S. federal income tax. Therefore, after reevaluation of the permanent reinvestment assertion, we no longer consider our foreign earnings to be permanently reinvested as of December 31, 2018. As a result of the change in the assertion, during 2018 we recorded tax expense of approximately $5.6 million for foreign withholding taxes on unremitted foreign earnings as of December 31, 2018.

For the years ended December 31, 2018, 2017 and 2016, income before income taxes is broken out between U.S. and foreign-sourced operations and consisted of the following (in thousands):

	2018	2017	2016
Domestic	$ 21,084	$ 14,531	$ 6,174
Foreign	28,435	21,350	19,212
Total	$ 49,519	$ 35,881	$ 25,386

The components of the provision for income taxes for the years ended December 31, 2018, 2017 and 2016, consisted of the following (in thousands):

	2018	2017	2016
Current expense (benefit):			
Federal	$ (1,132)	$ 3,849	$ 1,933
State	582	645	492
Foreign	6,000	5,168	3,802
Total current expense	5,450	9,662	6,227
Deferred expense (benefit):			
Federal	4,400	(314)	(144)
State	(667)	(216)	(195)
Foreign	(1,681)	(774)	(623)
Total deferred (benefit) expense	2,052	(1,304)	(962)
Total income tax expense	$ 7,502	$ 8,358	$ 5,265

The difference between the income tax expense reported and amounts computed by applying the statutory federal rate of 21.0% to pretax income for the year ended December 31, 2018, and 35% for years ended December 31, 2017 and 2016, consisted of the following (in thousands):

	2018	2017	2016
Computed federal income tax expense at applicable statutory rate	$ 10,399	$ 12,559	$ 8,885
State income taxes	(59)	279	193
Tax credits	(1,734)	(1,377)	(1,164)
Production activity deduction	—	—	(53)
Foreign tax rate differential	(1,361)	(3,329)	(3,717)
Uncertain tax positions	267	(19)	597
Deferred compensation insurance assets	186	(479)	(307)
Transaction-related expenses	223	90	274
U.S. transition tax	(3,271)	10,612	—
TCJA remeasurement of deferred taxes	(71)	(8,383)	—
Stock-based payments	(4,278)	(2,264)	—
Bargain purchase gain	—	(1,570)	—
In-process research and development	—	1,486	—
Net GILTI	347	—	—
Foreign withholding tax	5,590	—	—
Other — including the effect of graduated rates	1,264	753	557
Total income tax expense	$ 7,502	$ 8,358	$ 5,265

Deferred income tax assets and liabilities at December 31, 2018 and 2017, consisted of the following temporary differences and carry-forward items (in thousands):

	2018	2017
Deferred income tax assets:		
Allowance for uncollectible accounts receivable	$ 606	$ 467
Accrued compensation expense	7,414	5,154
Inventory differences	1,269	2,505
Net operating loss carryforwards	20,226	15,741
Deferred revenue	46	58
Stock-based compensation expense	2,833	2,281
Other	9,243	8,986
Total deferred income tax assets	41,637	35,192
Deferred income tax liabilities:		
Prepaid expenses	(1,142)	(930)
Property and equipment	(20,045)	(20,352)
Intangible assets	(58,883)	(28,588)
Foreign withholding tax	(5,590)	—
Other	(4,350)	(1,830)
Total deferred income tax liabilities	(90,010)	(51,700)
Valuation allowance	(4,989)	(4,422)
Net deferred income tax assets (liabilities)	$ (53,362)	$ (20,930)
Reported as:		
Deferred income tax assets - Long-term	$ 3,001	$ 2,359
Deferred income tax liabilities - Long-term	(56,363)	(23,289)
Net deferred income tax liabilities	$ (53,362)	$ (20,930)

The long-term deferred income tax balances are not netted as they represent deferred amounts applicable to different taxing jurisdictions. Deferred income tax balances reflect the temporary differences between the carrying amounts of assets and liabilities and their tax basis and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered.

The valuation allowance is primarily related to state credit carryforwards, non-US net operating loss carryforwards, and capital loss carryforwards for which we believe it is more likely than not that the deferred tax assets will not be realized. The valuation allowance increased by approximately $567,000, $636,000 and $1.8 million during the years ended December 31, 2018, 2017 and 2016, respectively.

As of December 31, 2018 and 2017, we had U.S federal net operating loss carryforwards of approximately $86.3 million and $67.9 million, respectively, which were generated by Cianna Medical, VAT, DFINE and Biosphere Medical, Inc. prior to our acquisition of these companies. Cianna Medical, Inc. was acquired on November 13, 2018. These net operating loss carryforwards, which expire at various dates through 2035, are subject to an annual limitation under Internal Revenue Code Section 382. We anticipate that we will utilize the net operating loss carryforwards over the next 17 years. We utilized a total of approximately $11.9 million and $9.1 million in U.S. federal net operating loss carryforwards during the years ended December 31, 2018 and 2017, respectively.

As of December 31, 2018, we had approximately $5.9 million of non-U.S. net operating loss carryforwards, of which approximately $5.2 million have no expiration date and approximately $761,000 expire at various dates through 2027. As of December 31, 2017, we had $5.4 million of non-U.S. net operating loss carryforwards, of which approximately $4.9 million had no expiration date and approximately $526,000 expire at various dates through 2027. Non-U.S. net operating loss carryforwards utilized during the years ended December 31, 2018 and 2017 were not material.

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. In our opinion, we have made adequate provisions for income taxes for all years subject to audit. We are no longer subject to U.S. federal, state, and local income tax examinations by tax authorities for years before 2015. In foreign jurisdictions, we are no longer subject to income tax examinations for years before 2012.

Although we believe our estimates are reasonable, the final outcomes of these matters may be different from those which we have reflected in our historical income tax provisions and accruals. Such differences could have a material effect on our income tax provision and operating results in the period in which we make such determination.

The total liability for unrecognized tax benefits at December 31, 2018, including interest and penalties, was approximately $3.3 million, of which approximately $3.0 million would favorably impact our effective tax rate if recognized. The total liability for unrecognized tax benefits at December 31, 2017, including interest and penalties, was approximately $3.1 million, of which approximately $2.7 million would favorably impact our effective tax rate if recognized. As of December 31, 2018 and 2017, the total liability for uncertain tax benefits, as presented on our consolidated balance sheets, has been reduced by approximately $307,000 related to certain liabilities for unrecognized tax benefits, which, if realized, would reduce the transition tax under the TCJA by approximately $307,000. As of December 31, 2018 and 2017, we had accrued approximately $373,000 and $304,000 respectively, in total interest and penalties related to unrecognized tax benefits. We account for interest and penalties for unrecognized tax benefits as part of our income tax provision. During the years ended December 31, 2018, 2017 and 2016, we added interest and penalties of approximately $69,000, $88,000 and $30,000, respectively, to our liability for unrecognized tax benefits. It is reasonably possible that within the next 12 months the total liability for unrecognized tax benefits may change, net of potential decreases due to the expiration of statutes of limitation, up to $400,000.

A reconciliation of the beginning and ending amount of liabilities associated with uncertain tax benefits for the years ended December 31, 2018, 2017 and 2016, consisted of the following (in thousands):

Tabular Roll-forward	2018	2017	2016
Unrecognized tax benefits, opening balance	$ 2,749	$ 2,549	$ 1,982
Gross increases in tax positions taken in a prior year	35	80	77
Gross increases in tax positions taken in the current year	586	403	856
Lapse of applicable statute of limitations	(423)	(283)	(366)
Unrecognized tax benefits, ending balance	$ 2,947	$ 2,749	$ 2,549

The tabular roll-forward ending balance does not include interest and penalties related to unrecognized tax benefits.

7. ACCRUED EXPENSES

Accrued expenses at December 31, 2018 and 2017, consisted of the following (in thousands):

	2018	2017
Payroll and related liabilities	$ 37,396	$ 30,225
Current portion of contingent liabilities	23,760	289
Advances from employees	540	796
Other accrued expenses	34,477	27,622
Total	$ 96,173	$ 58,932

8. REVOLVING CREDIT FACILITY AND LONG-TERM DEBT

Principal balances outstanding under our long-term debt obligations as of December 31, 2018 and 2017, consisted of the following (in thousands):

	2018	2017
2016 Term loan	$ 72,500	$ 85,000
2016 Revolving credit loans	316,000	187,000
Collateralized debt facility	7,000	6,959
Less unamortized debt issuance costs	(348)	(487)
Total long-term debt	395,152	278,472
Less current portion	22,000	19,459
Long-term portion	$ 373,152	$ 259,013

Collateralized Debt Facility

On September 3, 2018, we renewed our loan agreement with HSBC Bank USA, National Association ("HSBC Bank") whereby HSBC Bank agreed to provide us with a loan in the amount of $7.0 million. As of December 31, 2018 the loan was set to mature on January 11, 2019, with an extension available at our option, subject to certain conditions. In January 2019, we entered into an agreement to extend the loan agreement through April 28, 2019. The loan agreement bears interest at the six-month London Inter-Bank Offered Rate (“LIBOR”) plus 1.0%. The loan is secured by assets equal to the currently outstanding loan balance. The loan contains covenants, representations and warranties and other terms customary for loans of this nature. As of December 31, 2018, our interest rate on the loan was a variable rate of 3.39%.

2016 Term Loan and Revolving Credit Loans

On July 6, 2016, we entered into a Second Amended and Restated Credit Agreement (as amended to date, the “Second Amended Credit Agreement”), with Wells Fargo Bank, National Association, as administrative agent, swingline lender and a lender, and Wells Fargo Securities, LLC, as sole lead arranger and sole bookrunner. In addition to Wells Fargo Bank, National Association, Bank of America, N.A., U.S. Bank, National Association, and HSBC Bank USA, National Association, are parties to the Second Amended Credit Agreement as lenders. The Second Amended Credit Agreement amends and restates in its entirety our previously outstanding Amended and Restated Credit Agreement and all amendments thereto. The Second Amended Credit Agreement was amended on September 28, 2016 to allow for a new revolving credit loan to our wholly-owned subsidiary, on March 20, 2017 to allow flexibility in how we apply net proceeds received from equity issuances to prepay outstanding indebtedness, on December 13, 2017 to increase the revolving credit commitment by $100 million up to $375 million, and on March 28, 2018 to amend certain debt covenants.

The Second Amended Credit Agreement provides for a term loan of $150 million and a revolving credit commitment up to an aggregate amount of $375 million, which includes a reserve of $25 million to make swingline loans from time to time. The term loan is payable in quarterly installments in the amounts provided in the Second Amended Credit Agreement until the maturity date of July 6, 2021, at which time the term and revolving credit loans, together with accrued interest thereon, will be due and payable. At any time prior to the maturity date, we may repay any amounts owing under all revolving credit loans, term loans, and all swingline loans in whole or in part, subject to certain minimum thresholds, without premium or penalty, other than breakage costs.

Revolving credit loans denominated in dollars and term loans made under the Second Amended Credit Agreement bear interest, at our election, at either a Base Rate or Eurocurrency Base Rate (as such terms are defined in the Second Amended Credit Agreement) plus the applicable margin, which increases as our Consolidated Total Leverage Ratio (as defined in the Second Amended Credit Agreement) increases. Revolving credit loans denominated in an Alternative Currency (as defined in the Second Amended Credit Agreement) bear interest at the Eurocurrency rate plus the applicable margin. Swingline loans bear interest at the base rate plus the applicable margin. Upon an event of default, the interest rate may be increased by 2.0%. The revolving credit commitment will also carry a commitment fee of 0.15% to 0.40% per annum on the unused portion.

The Second Amended Credit Agreement is collateralized by substantially all our assets. The Second Amended Credit Agreement contains covenants, representations and warranties and other terms customary for loans of this nature. The Second Amended Credit Agreement requires that we maintain certain financial covenants, as follows:

	Covenant Requirement
Consolidated Total Leverage Ratio (1)	
January 1, 2018 and thereafter	3.5 to 1.0
Consolidated EBITDA (2)	1.25 to 1.0
Consolidated Net Income (3)	$—
Facility Capital Expenditures (4)	$30 million

(1) Maximum Consolidated Total Leverage Ratio (as defined in the Second Amended Credit Agreement) as of any fiscal quarter end.

(2) Minimum ratio of Consolidated EBITDA (as defined in the Second Amended Credit Agreement and adjusted for certain expenditures) to Consolidated Fixed Charges (as defined in the Second Amended Credit Agreement) for any period of four consecutive fiscal quarters.

(3) Minimum level of Consolidated Net Income (as defined in the Second Amended Credit Agreement) for certain periods, and subject to certain adjustments.

(4) Maximum level of the aggregate amount of all Facility Capital Expenditures (as defined in the Second Amended Credit Agreement) in any fiscal year.

Additionally, the Second Amended Credit Agreement contains customary events of default and affirmative and negative covenants for transactions of this type. As of December 31, 2018, we believe we were in compliance with all covenants set forth in the Second Amended Credit Agreement.

Future Payments

Future minimum principal payments on our long-term debt as of December 31, 2018, are as follows (in thousands):

Years Ending December 31	Future Minimum Principal Payments
2019	22,000
2020	17,500
2021	356,000
Total future minimum principal payments	$ 395,500

As of December 31, 2018, we had outstanding borrowings of approximately $388.5 million under the Second Amended Credit Agreement, with available borrowings of approximately $58.3 million, based on the leverage ratio required pursuant to the Second Amended Credit Agreement. Our interest rate as of December 31, 2018 was a fixed rate of 2.12% on $175.0 million as a result an interest rate swap (see Note 9) and a variable floating rate of 3.52% on $213.5 million. Our interest rate as of December 31, 2017 was a fixed rate of 2.68% on $175.0 million as a result of an interest rate swap and a variable floating rate of 2.82% on $97.0 million.

9. DERIVATIVES

General. Our earnings and cash flows are subject to fluctuations due to changes in interest rates and foreign currency exchange rates, and we seek to mitigate a portion of these risks by entering into derivative contracts. The derivatives we use are interest rate swaps and foreign currency forward contracts. We recognize derivatives as either assets or liabilities at fair value in

the accompanying consolidated balance sheets, regardless of whether or not hedge accounting is applied. We report cash flows arising from our hedging instruments consistent with the classification of cash flows from the underlying hedged items. Accordingly, cash flows associated with our derivative programs are classified as operating activities in the accompanying consolidated statements of cash flows.

We formally document, designate and assess the effectiveness of transactions that receive hedge accounting initially and on an ongoing basis. Changes in the fair value of derivatives that qualify for hedge accounting treatment are recorded, net of applicable taxes, in accumulated other comprehensive income, a component of stockholders' equity in the accompanying consolidated balance sheets. For the ineffective portions of qualifying hedges, the change in fair value is recorded through earnings in the period of change. Changes in the fair value of derivatives not designated as hedging instruments are recorded in earnings throughout the term of the derivative.

Interest Rate Risk. A portion of our debt bears interest at variable interest rates and, therefore, we are subject to variability in the cash paid for interest expense. In order to mitigate a portion of this risk, we use a hedging strategy to reduce the variability of cash flows in the interest payments associated with a portion of the variable-rate debt outstanding under our Second Amended Credit Agreement that is solely due to changes in the benchmark interest rate.

Derivatives Designated as Cash Flow Hedges

On August 5, 2016, we entered into a pay-fixed, receive-variable interest rate swap with a current notional amount of $175.0 million with Wells Fargo to fix the one-month LIBOR rate at 1.12%. The variable portion of the interest rate swap is tied to the one-month LIBOR rate (the benchmark interest rate). On a monthly basis, the interest rates under both the interest rate swap and the underlying debt reset, the swap is settled with the counterparty, and interest is paid. The interest rate swap is scheduled to expire on July 6, 2021.

At December 31, 2018 and 2017, our interest rate swap qualified as a cash flow hedge. The fair value of our interest rate swap at December 31, 2018 was an asset of approximately $5.8 million, which was partially offset by approximately $1.5 million in deferred taxes. The fair value of our interest rate swaps at December 31, 2017 was an asset of approximately $5.7 million, which was offset by approximately $1.5 million in deferred taxes.

Foreign Currency Risk. We operate on a global basis and are exposed to the risk that our financial condition, results of operations, and cash flows could be adversely affected by changes in foreign currency exchange rates. To reduce the potential effects of foreign currency exchange rate movements on net earnings, we enter into derivative financial instruments in the form of foreign currency exchange forward contracts with major financial institutions. Our policy is to enter into foreign currency derivative contracts with maturities of up to two years. We are primarily exposed to foreign currency exchange rate risk with respect to transactions and balances denominated in Euros, British Pounds, Chinese Renminbi, Mexican Pesos, Brazilian Reals, Australian Dollars, Hong Kong Dollars, Swiss Francs, Swedish Krona, Canadian Dollars, Danish Krone, Japanese Yen, Korea Won, and Singapore Dollars, among others. We do not use derivative financial instruments for trading or speculative purposes. We are not subject to any credit risk contingent features related to our derivative contracts, and counterparty risk is managed by allocating derivative contracts among several major financial institutions.

Derivatives Designated as Cash Flow Hedges

For derivative instruments that are designated and qualify as cash flow hedges, the effective portion of the gain or loss on the derivative instrument is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same line item associated with the forecasted transaction and in the same period or periods during which the hedged transaction affects earnings. The remaining gain or loss on the derivative instrument in excess of the cumulative change in the present value of future cash flows of the hedged item, if any (i.e., the ineffective portion) or hedge components excluded from the assessment of effectiveness, are recognized in earnings during the current period. We entered into forward contracts on various foreign currencies to manage the risk associated with forecasted exchange rates which impact revenues, cost of sales, and operating expenses in various international markets. The objective of the hedges is to reduce the variability of cash flows associated with the forecasted purchase or sale of the associated foreign currencies.

We enter into approximately 150 cash flow foreign currency hedges every month. As of December 31, 2018, we had entered into foreign currency forward contracts, which qualified as cash flow hedges, with the following notional amounts (in thousands and in local currencies):

Currency	Symbol	Forward Notional Amount
Australian Dollar	AUD	3,000
Canadian Dollar	CAD	4,410
Swiss Franc	CHF	2,145
Chinese Renminbi	CNY	160,000
Danish Krone	DKK	17,225
Euro	EUR	20,310
British Pound	GBP	5,280
Japanese Yen	JPY	1,145,000
Korean Won	KRW	3,050,000
Mexican Peso	MXN	230,000
Swedish Krona	SEK	30,210

Derivatives Not Designated as Cash Flow Hedges

We forecast our net exposure in various receivables and payables to fluctuations in the value of various currencies, and we enter into foreign currency forward contracts to mitigate that exposure. We enter into approximately 20 foreign currency fair value hedges every month. As of December 31, 2018, we had entered into foreign currency forward contracts related to those balance sheet accounts with the following notional amounts (in thousands and in local currencies):

Currency	Symbol	Forward Notional Amount
Australian Dollar	AUD	11,400
Brazilian Real	BRL	9,000
Canadian Dollar	CAD	2,300
Swiss Franc	CHF	269
Chinese Renminbi	CNY	63,200
Danish Krone	DKK	3,237
Euro	EUR	5,927
British Pound	GBP	2,358
Hong Kong Dollar	HKD	11,000
Japanese Yen	JPY	265,000
Korean Won	KRW	5,500,000
Mexican Peso	MXN	23,000
Swedish Krona	SEK	9,627
Singapore Dollar	SGD	8,500

Balance Sheet Presentation of Derivatives. As of December 31, 2018 and 2017, all derivatives, both those designated as hedging instruments and those that were not designated as hedging instruments, were recorded gross at fair value on our consolidated balance sheets. We are not subject to any master netting agreements.

The fair value of derivative instruments on a gross basis is as follows (in thousands):

		Fair Value	
	Balance Sheet Location	December 31, 2018	December 31, 2017
Derivatives designated as hedging instruments			
Assets			
Interest rates swaps	Other assets (long-term)	$ 5,772	$ 5,749
Foreign currency forward contracts	Prepaid expenses and other assets	613	363
Foreign currency forward contracts	Other assets (long-term)	151	35
Liabilities			
Foreign currency forward contracts	Accrued expenses	(711)	(468)
Foreign currency forward contracts	Other long-term obligations	(101)	(82)
Derivatives not designated as hedging instruments			
Assets			
Foreign currency forward contracts	Prepaid expenses and other assets	$ 814	$ 223
Liabilities			
Foreign currency forward contracts	Accrued expenses	(796)	(841)

Income Statement Presentation of Derivatives

Derivatives Designated as Cash Flow Hedges

Derivative instruments designated as cash flow hedges had the following effects, before income taxes, on other comprehensive income ("OCI"), accumulated other comprehensive income ("AOCI") and net earnings in our consolidated statements of income, consolidated statements of comprehensive income and consolidated balance sheets (in thousands):

	Amount of Gain/(Loss) recognized in OCI				Amount of Gain/(Loss) reclassified from AOCI		
	Year ended December 31,				Year ended December 31,		
	2018	2017	2016		2018	2017	2016
Derivative instrument				**Location in statements of income**			
Interest rate swaps	$1,559	$ 853	$ 4,989	*Interest Expense*	$1,537	95	(718)
Foreign currency forward contracts	539	491	(205)	*Revenue*	136	(277)	21
				Cost of goods sold	361	625	(26)

The net amount recognized in earnings during the years ended December 31, 2018, 2017 and 2016 due to ineffectiveness and amounts excluded from the assessment of hedge effectiveness were not significant.

As of December 31, 2018, approximately $27,000, or $20,000 after taxes, was expected to be reclassified from accumulated other comprehensive income to earnings in revenue and cost of sales over the succeeding twelve months. As of December 31, 2018, approximately $2.5 million, or $1.9 million after taxes, was expected to be reclassified from accumulated other comprehensive income to earnings in interest expense over the succeeding twelve months.

Derivatives Not Designated as Hedging Instruments

The following gains/(losses) from these derivative instruments were recognized in our consolidated statements of income for the years presented (in thousands):

		Year ended December 31,		
		2018	2017	2016
Derivative Instrument	**Location in statements of income**			
Foreign currency forward contracts	Other expense	$ 4,147	$ (4,746)	$ 69

See Note 16 for more information about our derivatives.

10. COMMITMENTS AND CONTINGENCIES

We are obligated under non-terminable operating leases for manufacturing facilities, finished good distribution centers, office space, equipment and certain vehicles. Total rental expense on these operating leases for the years ended December 31, 2018, 2017 and 2016, approximated $14.5 million, $13.6 million and $11.4 million, respectively.

The future minimum lease payments for operating leases as of December 31, 2018, consisted of the following (in thousands):

Years Ending December 31	Operating Leases
2019	$ 13,421
2020	11,319
2021	9,995
2022	8,053
2023	6,953
Thereafter	52,754
Total minimum lease payments	$ 102,495

Irish Government Development Agency Grants. As of December 31, 2018, we had entered into several grant agreements with the Irish Government Development Agency. Grants related to the acquisition of property and equipment purchased in Ireland are amortized as a reduction to depreciation expense over lives corresponding to the depreciable lives of such property and equipment. The balance of deferred credits related to such grants as of December 31, 2018 and 2017, was approximately $2.3 million and $2.4 million, respectively. During the years ended December 31, 2018, 2017 and 2016, approximately $142,000, $147,000 and $170,000, respectively, of the deferred credit was amortized as a reduction of operating expenses.

We had committed to repay the Irish government for grants received if we cease production in Ireland prior to the expiration of the grant liability period. The grant liability period is usually between five and eight years from the last claim made on a grant. As of December 31, 2018, the grant liability period had expired and there was no remaining amount which the Irish government could reclaim if we were to cease production in Ireland. We have no plans to cease production in Ireland.

Royalties. As of December 31, 2018, we had entered into a number of agreements to license or acquire rights to certain intellectual property which require us to make royalty payments during the term of the agreements generally based on a percentage of sales. Total royalty expense during the years ended December 31, 2018, 2017 and 2016, approximated $5.3 million, $4.4 million and $3.2 million, respectively. Minimum contractual commitments under royalty agreements to be paid within twelve months of December 31, 2018 were not significant. See Note 3 for discussion of future royalty commitments related to acquisitions.

Litigation. In the ordinary course of business, we are involved in various claims and litigation matters. These claims and litigation matters may include actions involving product liability, intellectual property, contract disputes, and employment or other matters that are significant to our business. Based upon our review of currently available information, we do not believe that any such actions are likely to be, individually or in the aggregate, materially adverse to our business, financial condition, results of operations or liquidity.

In addition to the foregoing matters, in October 2016, we received a subpoena from the U.S. Department of Justice seeking information on certain of our marketing and promotional practices. We are in the process of responding to the subpoena, which we anticipate will continue during 2019. We have incurred, and anticipate that we will continue to incur, substantial costs in connection with the matter. The investigation is ongoing and at this stage we are unable to predict its scope, duration or outcome. Investigations such as this may result in the imposition of, among other things, significant damages, injunctions, fines or civil or criminal claims or penalties against our company or individuals.

In the event of unexpected further developments, it is possible that the ultimate resolution of any of the foregoing matters, or other similar matters, if resolved in a manner unfavorable to us, may be materially adverse to our business, financial condition, results of operations or liquidity. Legal costs for these matters, such as outside counsel fees and expenses, are charged to expense in the period incurred.

11. EARNINGS PER COMMON SHARE (EPS)

The computation of weighted average shares outstanding and the basic and diluted earnings per common share for the following periods consisted of the following (in thousands, except per share amounts):

	Net Income	Shares	Per Share Amount
Year ended December 31, 2018:			
Basic EPS	$ 42,017	52,268	$ 0.80
Effect of dilutive stock options and warrants		1,663	
Diluted EPS	$ 42,017	53,931	$ 0.78
Year ended December 31, 2017:			
Basic EPS	$ 27,523	48,805	$ 0.56
Effect of dilutive stock options and warrants		1,296	
Diluted EPS	$ 27,523	50,101	$ 0.55
Year ended December 31, 2016:			
Basic EPS	$ 20,121	44,408	$ 0.45
Effect of dilutive stock options and warrants		454	
Diluted EPS	$ 20,121	44,862	$ 0.45

For the years ended December 31, 2018, 2017 and 2016, approximately 396,000, 381,000 and 727,000, respectively, of stock options were not included in the computation of diluted earnings per share because their effect would have been anti-dilutive.

12. EMPLOYEE STOCK PURCHASE PLAN, STOCK OPTIONS AND WARRANTS.

Our stock-based compensation primarily consists of the following plans:

2018 Long-Term Incentive Plan. In June 2018, our Board of Directors adopted and our shareholders approved, the Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan, which was subsequently amended effective December 14, 2018 (the "2018 Incentive Plan") to supplement the Merit Medical Systems, Inc. 2006 Long-Term Incentive plan (the "2006 Incentive Plan"). The 2018 Incentive Plan provides for the granting of stock options, stock appreciation rights, restricted stock, stock units (including restricted stock units) and performance awards. Options may be granted to directors, officers, outside consultants and key employees and may be granted upon such terms and such conditions as the Compensation Committee of our Board of Directors determines. Options will typically vest on an annual basis over a three to five-year life with a contractual life of 7 years. As of December 31, 2018, a total of 2,900,000 shares remained available to be issued under the 2018 Incentive Plan.

2006 Long-Term Incentive Plan. In May 2006, our Board of Directors adopted and our shareholders approved, the 2006 Incentive Plan. As of December 31, 2018, the 2006 Incentive Plan was no longer being used for the granting of equity awards. However, as of December 31, 2018, options granted under this plan were still outstanding, vesting, and being exercised and will continue to be outstanding until the vesting periods end and the terms of the equity awards expire.

Employee Stock Purchase Plan. We have a non-qualified Employee Stock Purchase Plan ("ESPP"), which has an expiration date of June 30, 2026. As of December 31, 2018, the total number of shares of common stock that remained available to be issued under our non-qualified plan was 105,207 shares. ESPP participants purchase shares on a quarterly basis at a price equal to 95% of the market price of the common stock at the end of the applicable offering period.

Stock-Based Compensation Expense. The stock-based compensation expense before income tax expense for the years ended December 31, 2018, 2017 and 2016, consisted of the following (in thousands):

	2018	2017	2016
Cost of goods sold	$ 870	$ 632	$ 472
Research and development	553	376	184
Selling, general, and administrative	4,694	3,067	1,850
Stock-based compensation expense before taxes	$ 6,117	$ 4,075	$ 2,506

We recognize stock-based compensation expense (net of a forfeiture rate) for those awards which are expected to vest on a straight-line basis over the requisite service period. We estimate the forfeiture rate based on our historical experience and expectations about future forfeitures. As of December 31, 2018, the total remaining unrecognized compensation cost related to non-vested stock options, net of expected forfeitures, was approximately $19.0 million and is expected to be recognized over a weighted average period of 3.09 years.

In applying the Black-Scholes methodology to the option grants, the fair value of our stock-based awards granted were estimated using the following assumptions for the periods indicated below:

	2018	2017	2016
Risk-free interest rate	2.63% - 2.77%	1.77% - 1.83%	1.15% - 1.40%
Expected option life	5.0 years	5.0 years	5.0 years
Expected dividend yield	—%	—%	—%
Expected price volatility	34.06% - 34.32%	33.81% - 34.07%	34.28% - 37.06%

The average risk-free interest rate is determined using the U.S. Treasury rate in effect as of the date of grant, based on the expected term of the stock option. We determine the expected term of the stock options using the historical exercise behavior of employees. The expected price volatility was determined using a weighted average of daily historical volatility of our stock price over the corresponding expected option life and implied volatility based on recent trends of the daily historical volatility. For options with a vesting period, compensation expense is recognized on a straight-line basis over the service period, which corresponds to the vesting period. During the years ended December 31, 2018, 2017 and 2016, approximately 692,000, 1.3 million and 880,000 stock-based compensation grants were made, respectively, for a total fair value of approximately $11.1 million, $12.4 million and $5.2 million, net of estimated forfeitures, respectively.

The table below presents information related to stock option activity for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Total intrinsic value of stock options exercised	$ 25,692	$ 9,264	$ 3,648
Cash received from stock option exercises	8,510	5,552	4,577
Excess tax benefit from the exercise of stock options	4,278	2,264	669

Changes in stock options for the year ended December 31, 2018, consisted of the following (shares and intrinsic value in thousands):

	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term (in years)	Intrinsic Value
Beginning balance	3,623	$ 20.40		
Granted	692	46.45		
Exercised	(690)	15.41		
Forfeited/expired	(118)	26.90		
Outstanding at December 31	3,507	26.30	4.54	$ 103,483
Exercisable	1,101	17.71	3.33	41,963
Ending vested and expected to vest	3,388	26.05	4.51	100,820

The weighted average grant-date fair value of options granted during the years ended December 31, 2018, 2017 and 2016 was $16.05, $9.57 and $5.94, respectively.

The following table summarizes information about stock options outstanding at December 31, 2018 (shares in thousands):

	Options Outstanding			Options Exercisable	
Range of Exercise	Number Outstanding	Weighted Average Remaining Contractual Life (in years)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$9.95 - $16.05	982	3.02	$ 13.99	585	$ 13.16
$16.41 - $22.00	683	3.73	$ 18.93	319	$ 18.76
$28.20 - $28.20	961	5.27	$ 28.20	159	$ 28.20
$34.40 - $50.50	881	6.04	$ 43.65	38	$ 34.74
$9.95 - $50.50	3,507			1,101	

13. SEGMENT REPORTING AND FOREIGN OPERATIONS

We report our operations in two operating segments: cardiovascular and endoscopy. Our cardiovascular segment consists of cardiology and radiology medical device products which assist in diagnosing and treating coronary artery disease, peripheral vascular disease and other non-vascular diseases and includes embolotherapeutic, cardiac rhythm management ("CRM"), electrophysiology ("EP"), critical care, Cianna Medical, interventional oncology and spine devices, and breast cancer localization and guidance. Our endoscopy segment consists of gastroenterology and pulmonology medical device products which assist in the palliative treatment of expanding esophageal, tracheobronchial and biliary strictures caused by malignant tumors. We evaluate the performance of our operating segments based on operating income (loss). See Note 2 for a detailed breakout of our sales by operating segment and product group, disaggregated between domestic and international sales.

During the years ended December 31, 2018, 2017 and 2016, we had international sales of approximately $386.3 million, $307.1 million and $233.5 million, respectively, or approximately 44%, 42% and 39%, respectively, of net sales, primarily in China, Japan, Germany, France, the United Kingdom and Russia. China represents our most significant international sales market with sales of approximately $92.7 million, $73.4 million, and $59.9 million for the years ended December 31, 2018, 2017 and 2016, respectively. International sales are attributed based on location of the customer receiving the product.

Our long-lived assets (which are comprised of our net property, plant and equipment) by geographic area at December 31, 2018, 2017 and 2016, consisted of the following (in thousands):

	2018	2017	2016
United States	$ 231,864	$ 202,504	$ 194,715
Ireland	45,283	45,671	47,337
Other foreign countries	54,305	44,645	34,521
Total	$ 331,452	$ 292,820	$ 276,573

Financial information relating to our reportable operating segments and reconciliations to the consolidated totals for the years ended December 31, 2018, 2017 and 2016, are as follows (in thousands):

	2018	2017	2016
Net Sales			
Cardiovascular	$ 849,477	$ 700,613	$ 580,151
Endoscopy	33,276	27,239	23,687
Total net sales	882,753	727,852	603,838
Operating expenses			
Cardiovascular	321,461	281,095	218,659
Endoscopy	14,692	12,089	11,490
Total operating expenses	336,153	293,184	230,149
Operating income			
Cardiovascular	49,289	24,819	30,053
Endoscopy	9,328	8,250	4,823
Total operating income	58,617	33,069	34,876
Total other income (expense) - net	(9,098)	2,812	(9,490)
Income tax expense	7,502	8,358	5,265
Net income	$ 42,017	$ 27,523	$ 20,121

Total assets by business segment at December 31, 2018, 2017 and 2016, consisted of the following (in thousands):

	2018	2017	2016
Cardiovascular	$ 1,588,970	$ 1,103,806	$ 932,927
Endoscopy	31,042	8,005	9,876
Total	$ 1,620,012	$ 1,111,811	$ 942,803

Total depreciation and amortization by business segment for the years ended December 31, 2018, 2017, and 2016 consisted of the following (in thousands):

	2018	2017	2016
Cardiovascular	$ 68,722	$ 52,700	$ 42,806
Endoscopy	824	882	949
Total	$ 69,546	$ 53,582	$ 43,755

Total capital expenditures for property and equipment by business segment for the years ended December 31, 2018, 2017 and 2016 consisted of the following (in thousands):

	2018	2017	2016
Cardiovascular	$ 63,032	$ 38,437	$ 32,613
Endoscopy	292	186	224
Total	$ 63,324	$ 38,623	$ 32,837

14. EMPLOYEE BENEFIT PLANS

We have a contributory 401(k) savings and profit sharing plan (the "Plan") covering all U.S. full-time employees who are at least 18 years of age. The Plan has a 90-day minimum service requirement. We may contribute, at our discretion, matching contributions based on the employees' compensation. Contributions we made to the Plan for the years ended December 31, 2018, 2017 and 2016, totaled approximately $3.5 million, $2.4 million and $2.3 million, respectively.

We also have defined contribution plans covering some of our foreign employees. We contribute between 2% and 32% of the employee's compensation for certain foreign non-management employees, and between 2% and 32% of the employee's compensation for certain foreign management employees. Contributions made to these plans for the years ended December 31, 2018, 2017 and 2016, totaled approximately $3.0 million, $2.3 million and $1.1 million, respectively.

15. QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

Quarterly data for the years ended December 31, 2018 and 2017 consisted of the following (in thousands, except per share amounts):

	Quarter Ended			
	March 31	June 30	September 30	December 31
2018				
Net sales	$ 203,035	$ 224,810	$ 221,659	$ 233,249
Gross profit	88,056	100,009	102,039	104,666
Income from operations	8,781	15,114	21,061	13,661
Income tax expense	1,090	624	2,766	3,022
Net income	5,269	10,941	16,619	9,188
Basic earnings per common share	0.10	0.22	0.31	0.17
Diluted earnings per common share	0.10	0.21	0.30	0.16
2017				
Net sales	$ 171,069	$ 186,549	$ 179,337	$ 190,897
Gross profit	75,942	84,141	80,514	85,656
Income from operations	5,609	13,362	879	13,219
Income tax expense	690	1,830	1,364	4,474
Net income (loss)	14,803	9,483	(3,569)	6,806
Basic earnings per common share	0.33	0.19	(0.07)	0.14
Diluted earnings per common share	0.32	0.19	(0.07)	0.13

Basic and diluted earnings per share are computed independently for each of the quarters presented. Therefore, the sum of the quarterly amounts may not equal the total computed for the year.

16. FAIR VALUE MEASUREMENTS

Our financial assets and (liabilities) carried at fair value measured on a recurring basis as of December 31, 2018 and 2017, consisted of the following (in thousands):

		Fair Value Measurements Using		
Description	Total Fair Value at December 31, 2018	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Interest rate contracts (1)	$ 5,772	$ —	$ 5,772	$ —
Foreign currency contract assets, current and long-term (2)	$ 1,578	$ —	$ 1,578	$ —
Foreign currency contract liabilities, current and long-term (3)	$ (1,608)	$ —	$ (1,608)	$ —

		Fair Value Measurements Using		
Description	Total Fair Value at December 31, 2017	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Interest rate contracts (1)	$ 5,749	$ —	$ 5,749	$ —
Foreign currency contract assets, current and long-term (2)	$ 621	$ —	$ 621	$ —
Foreign currency contract liabilities, current and long-term (3)	$ (1,391)	$ —	$ (1,391)	$ —

(1) The fair value of the interest rate contracts is determined using Level 2 fair value inputs and is recorded as other long-term assets or other long-term obligations in the consolidated balance sheets.

(2) The fair value of the foreign currency contract assets (including those designated as hedging instruments and those not designated as hedging instruments) is determined using Level 2 fair value inputs and is recorded as prepaid and other assets or other long-term assets in the consolidated balance sheets.

(3) The fair value of the foreign currency contract liabilities (including those designated as hedging instruments and those not designated as hedging instruments) is determined using Level 2 fair value inputs and is recorded as accrued expenses or other long-term obligations in the consolidated balance sheets.

Certain of our business combinations involve the potential for the payment of future contingent consideration, generally based on a percentage of future product sales or upon attaining specified future revenue milestones. See Note 3 for further information regarding these acquisitions. The contingent consideration liability is re-measured at the estimated fair value at each reporting period with the change in fair value recognized within operating expenses in the accompanying consolidated statements of income. We measure the initial liability and re-measure the liability on a recurring basis using Level 3 inputs as defined under authoritative guidance for fair value measurements. Changes in the fair value of our contingent consideration liability during the years ended December 31, 2018 and 2017, consisted of the following (in thousands):

	2018	2017
Beginning balance	$ 10,956	$ 683
Contingent consideration liability recorded as the result of acquisitions (see Note 3)	72,209	10,400
Fair value adjustments recorded to income during the period	(698)	(66)
Contingent payments made	(231)	(61)
Ending balance	$ 82,236	$ 10,956

As of December 31, 2018, approximately $58.5 million was included in other long-term obligations and approximately $23.8 million was included in accrued expenses in our consolidated balance sheet. As of December 31, 2017, approximately $10.7 million was included in other long-term obligations and $289,000 was included in accrued expenses in our consolidated balance sheet. The cash paid to settle the contingent consideration liability recognized at fair value as of the acquisition date (including measurement-period adjustments) has been reflected as a cash outflow from financing activities in the accompanying consolidated statements of cash flows.

During the year ended December 31, 2016, we sold an equity investment for cash and for the right to receive additional payments based on various contingent milestones. We determined the fair value of the contingent payments using Level 3 inputs defined under authoritative guidance for fair value measurements, and we recorded a contingent receivable asset, which as of

December 31, 2018 and 2017 had a value of approximately $607,000 and $760,000, respectively. We record any changes in fair value to operating expenses as part of our cardiovascular segment in our consolidated statements of income. For the year ended December 31, 2018, there were no significant changes to the fair value of the contingent receivable which impacted net income and we collected payments of approximately $153,000. During the year ended December 31, 2017, we recorded a gain on the contingent receivable of approximately $232,000. As of December 31, 2018, the receivable of approximately $607,000 was included in other receivables as a current asset in our consolidated balance sheet. As of December 31, 2017, approximately $319,000 was included in other long-term assets and approximately $441,000 was included in other receivables as a current asset in our consolidated balance sheet.

The recurring Level 3 measurement of our contingent consideration liability and contingent receivable includes the following significant unobservable inputs at December 31, 2018 and 2017 (amounts in thousands):

Contingent consideration asset or liability	Fair value at December 31, 2018	Valuation technique	Unobservable inputs	Range
Revenue-based royalty payments contingent liability	$ 10,661	Discounted cash flow	Discount rate	9.9% - 25%
			Projected year of payments	2018-2037
Supply chain milestone contingent liability	$ 13,593	Discounted cash flow	Discount rate	5.3%
			Probability of milestone payment	95%
			Projected year of payments	2019
Revenue milestones contingent liability	$ 57,982	Discounted cash flow	Discount rate	3.3% - 13%
			Projected year of payments	2019-2023
Contingent receivable asset	$ 607	Discounted cash flow	Discount rate	10%
			Probability of milestone payment	67%
			Projected year of payments	2019

Contingent consideration asset or liability	Fair value at December 31, 2017	Valuation technique	Unobservable inputs	Range
Revenue-based royalty payments contingent liability	$ 10,956	Discounted cash flow	Discount rate	9.9% - 15%
			Projected year of payments	2017-2037
Contingent receivable asset	$ 760	Discounted cash flow	Discount rate	10%
			Probability of milestone payment	75%
			Projected year of payments	2018-2019

The contingent consideration liability and contingent receivable are re-measured to fair value each reporting period using projected revenues, discount rates, probabilities of payment, and projected payment dates. Projected contingent payment amounts are discounted back to the current period using a discounted cash flow model. Projected revenues are based on our most recent internal operational budgets and long-range strategic plans. An increase (decrease) in either the discount rate or the time to payment, in isolation, may result in a significantly lower (higher) fair value measurement. A decrease in the probability of any milestone payment may result in lower fair value measurements. Our determination of the fair value of the contingent consideration liability and contingent receivable could change in future periods based upon our ongoing evaluation of these significant unobservable inputs. We intend to record any such change in fair value to operating expenses in our consolidated statements of income.

During the years ended December 31, 2018, 2017 and 2016, we had losses of approximately $814,000, $988,000 and $101,000, respectively, related to the measurement of non-financial assets at fair value on a nonrecurring basis subsequent to their initial recognition (see Note 5).

The carrying amount of cash and cash equivalents, receivables, and trade payables approximate fair value because of the immediate, short-term maturity of these financial instruments. The carrying amount of long-term debt approximates fair value, as determined by borrowing rates estimated to be available to us for debt with similar terms and conditions. The fair value of assets and liabilities whose carrying value approximates fair value is determined using Level 2 inputs, with the exception of cash and cash equivalents, which are Level 1 inputs.

17. ISSUANCE OF COMMON STOCK

On July 30, 2018, we closed a public offering of 4,025,000 shares of common stock and received proceeds of approximately $205.0 million, which is net of approximately $12.0 million in underwriting discounts and commissions and approximately $366,000 in other direct cost incurred in connection with this equity offering. The net proceeds from the offering were used primarily to repay outstanding borrowings (principally revolving credit loans) under our Second Amended Credit Agreement.

On March 28, 2017, we closed a public offering of 5,175,000 shares of common stock and received proceeds of approximately $136.6 million, which is net of approximately $8.8 million in underwriting discounts and commissions and approximately $816,000 in other direct costs incurred in connection with this equity offering. The net proceeds from the offering were used primarily to repay outstanding borrowings (including our term loan and revolving credit loans) under our Second Amended Credit Agreement.

Supplementary Financial Data

The supplementary financial information required by Item 302 of Regulation S-K is contained in Note 15 to our consolidated financial statements set forth above.

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

None.

Item 9A. Controls and Procedures.

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934 ("Exchange Act"), as of December 31, 2018. Based on this evaluation, our principal executive officer and principal financial officer concluded that as of December 31, 2018, our disclosure controls and procedures were effective, at a reasonable assurance level, to ensure that information we are required to disclose in the reports we file or submit under the Exchange Act is (a) recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms and is (b) accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the U.S. of America.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework (2013)*. However, as permitted by SEC guidance, we have excluded the acquisition of Cianna Medical, Inc. from management's assessment of internal control over financial reporting as of December 31, 2018. Cianna constituted approximately 1.3% of our total assets as of December 31, 2018 (excluding approximately $209.6 million of goodwill and intangible assets, which were integrated into our systems and control environment). Additionally, the operations of Cianna contributed 0.7% of our 2018 net sales, and resulted in pre-tax income in 2018 of approximately $1.1 million (excluding approximately $1.2 million of amortization of intangible assets, which was integrated into our systems and control environment).

Based on the criteria discussed above and our management’s assessment, our management concluded that, as of December 31, 2018, our internal control over financial reporting was effective.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

Except as set forth below, during the quarter ended December 31, 2018, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934).

On November 14, 2018, we completed our acquisition of Cianna. We are currently integrating the policies, processes, employees, technology and operations of Cianna. Management does not currently expect a material change to our internal controls over financial reporting as we fully integrate Cianna into our operations.

Our independent registered public accountants have also issued an audit report on our internal control over financial reporting. Their report appears below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Merit Medical Systems, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Merit Medical Systems, Inc. and subsidiaries (the "Company") as of December 31, 2018, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control-Integrated Frame Work (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018 of the Company and our report dated March 1, 2019, expressed an unqualified opinion on those financial statements.

As described in Management's Report on Internal Control over Financial Reporting, management excluded Cianna Medical, Inc. ("Cianna") from its assessment of internal control over financial reporting, which was acquired on November 13, 2018, and whose financial statements constituted approximately 1.3% of total assets as of December 31, 2018 (excluding approximately $209.6 million of goodwill and intangible assets), 0.7% of 2018 net sales, and resulted in a net pre-tax income in 2018 of approximately $1.1 million (excluding approximately $1.2 million of amortization of intangible assets) of the consolidated financial statement amounts as of and for the year ended December 31, 2018. Accordingly, our audit did not include the internal control over financial reporting at Cianna.

Basis for Opinion

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

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

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ DELOITTE & TOUCHE LLP
Salt Lake City, Utah
March 1, 2019

Item 9B. Other Information.

None.

PART III

Items 10, 11, 12, 13 and 14.

The information required by these items is incorporated by reference to our definitive proxy statement relating to our Annual Meeting of Shareholders scheduled for May 23, 2019. We anticipate that our definitive proxy statement will be filed with the SEC not later than 120 days after December 31, 2018, pursuant to Regulation 14A of the Securities Exchange Act of 1934, as amended.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) Documents filed as part of this Report:

(1) Financial Statements. The following consolidated financial statements and the notes thereto, and the Reports of Independent Registered Public Accounting Firm are incorporated by reference as provided in Item 8 and Item 9A of this report:

(2) Financial Statement Schedule.

— Schedule II - Valuation and qualifying accounts

Years Ended December 31, 2018, 2017 and 2016
(In thousands)

Description	Balance at Beginning of Year	Additions Charged to Costs and Expenses (a)	Deduction (b)	Balance at End of Year
ALLOWANCE FOR UNCOLLECTIBLE ACCOUNTS:				
2016	(1,297)	(612)	322	(1,587)
2017	(1,587)	(1,012)	830	(1,769)
2018	(1,769)	(1,055)	469	(2,355)

(a) We record a bad debt provision based upon historical experience and a review of individual customer balances.
(b) When an individual customer balance becomes impaired and is deemed uncollectible, a deduction is made against the allowance for uncollectible accounts.

Years Ended December 31, 2018, 2017 and 2016
(In thousands)

Description	Balance at Beginning of Year	Additions Charged to Costs and Expenses (c)	Deduction	Balance at End of Year
TAX VALUATION ALLOWANCE:				
2016	(1,981)	(1,805)	—	(3,786)
2017	(3,786)	(636)	—	(4,422)
2018	(4,422)	(567)	—	(4,989)

(c) We record a valuation allowance against a deferred tax asset when it is determined that it is more likely than not that the deferred tax asset will not be realized.

(b) Exhibits:

The following exhibits required by Item 601 of Regulation S-K are filed herewith or have been filed previously with the SEC as indicated below:

Exhibit No.	Index to Exhibits
1.1	Underwriting Agreement, dated March 22, 2017, by and among Merit Medical Systems, Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, and Piper Jaffray & Co.*
1.2	Underwriting Agreement, dated July 25, 2018, by and among Merit Medical Systems, Inc., Wells Fargo Securities, LLC and Piper Jaffray & Co.*
2.1	Agreement and Plan of Merger by and among Merit, MMS Transaction Co., a wholly-owned subsidiary of Merit, DFine Inc., certain preferred stockholders and Shareholder Representative Services LLC as a stockholder representative*
2.2	Additional Materials to Agreement and Plan of Merger by and among Merit, MMS Transaction Co., a wholly-owned subsidiary of Merit, DFine Inc., certain preferred stockholders and Shareholder Representative Services LLC as a stockholder representative*
2.3	Additional Materials to Agreement and Plan of Merger by and among Merit, MMS Transaction Co., a wholly-owned subsidiary of Merit, DFine Inc., certain preferred stockholders and Shareholder Representative Services LLC as a stockholder representative*
2.4	Asset Purchase Agreement by and between Merit Medical Systems, Inc. and Becton, Dickinson and Company dated November 15, 2017*
2.5	Agreement and Plan of Merger, dated October 1, 2018, by and among Merit Medical Systems, Inc., CMI Transaction Co., Cianna Medical, Inc. and Fortis Advisors LLC, as the Securityholder's Representative *
3.1	Amended and Restated Articles of Incorporation dated May 31, 2018*
3.2	Third Amended and Restated Bylaws dated May 31, 2018*
4.1	Specimen Certificate of the Common Stock*
10.1	Merit Medical Systems, Inc. Long Term Incentive Plan (as amended and restated) dated March 25, 1996*†
10.2	Lease Agreement dated as of June 8, 1993 for office and manufacturing facility*
10.3	Amended and Restated Deferred Compensation Plan*†
10.4	Seventh Amendment to the First Restatement of the Merit Medical Systems, Inc. 401(k) Profit Sharing Plan*†
10.5	Stock Purchase Agreement by and between Merit Medical Systems, Inc. and Sheen Man Co. LTD, dated April 1, 2007*
10.6	Merit Medical Systems, Inc. Amended and Restated Deferred Compensation Plan, effective January 1, 2008*†
10.7	Second Amendment to the Merit Medical Systems, Inc. 2006 Long-Term Incentive Plan*†
10.8	Second Restatement of the Merit Medical Systems, Inc. 401(k) Profit Sharing Plan*†
10.9	Second Amended and Restated Credit Agreement dated as of July 6, 2016 by and among Merit Medical Systems, Inc., Wells Fargo Bank, National Association, Well Fargo Securities, LLC and the lenders named therein*
10.10	Form of Indemnification Agreement, dated June 13, 2016, between the Company and each of the following individuals: Fred P. Lampropoulos, Kent W. Stanger, Nolan E. Karras, A. Scott Anderson, Richard W. Edelman, Franklin J. Miller, M.D., Michael E. Stillabower, M.D., F. Ann Millner, Ed. D., Bernard J. Birkett, Ronald A. Frost, Joseph C. Wright, Justin J. Lampropoulos, and Brian G. Lloyd*†

10.11	Form of Employment Agreement, dated May 26, 2016 between the Company and each of the following individuals: Bernard J. Birkett, Ronald A. Frost, Joseph C. Wright, Justin J. Lampropoulos, and Brian G. Lloyd*†
10.12	Employment Agreement, dated May 26, 2016 between the Company and Fred P. Lampropoulos*†
10.13	Third Amendment to the Merit Medical Systems, Inc. 2006 Long-Term Incentive Plan dated February 13, 2015*†
10.14	Merit Medical Systems, Inc., Restatement of the 1996 Employee Stock Purchase Plan dated July 1, 2000*†
10.15	First Amendment to the Merit Medical Systems, Inc., 1996 Employee Stock Purchase Plan dated April 1, 2001*†
10.16	Second Amendment to the Merit Medical Systems, Inc., 1996 Employee Stock Purchase Plan dated January 1, 2006*†
10.17	Third Amendment to the Merit Medical Systems, Inc., 1996 Employee Stock Purchase Plan dated April 7, 2006*†
10.18	Fourth Amendment to the Merit Medical Systems, Inc., 1996 Employee Stock Purchase Plan dated February 13, 2015*†
10.19	Indemnification Agreement, dated July 23, 2016, between the Company and David M. Liu*†
10.20	First Amendment to Second Amended and Restated Credit Agreement, dated September 28, 2016*
10.21	Second Amendment to Second Amended and Restated Credit Agreement, dated March 20, 2017, entered into by and among Merit Medical Systems, Wells Fargo Bank, National Association and the lenders and subsidiary guarantors named therein*
10.22	Indemnification Agreement with Thomas J. Gunderson*†
10.23	Third Amendment to Second Amended and Restated Credit Agreement and Incremental Increase Agreement, dated December 13, 2017, entered into by and among Merit Medical Systems, Inc., Wells Fargo Bank National Association and the lenders and subsidiary guarantors named therein*
10.24	First Amendment to Employment Agreement made and entered into by and between Merit Medical Systems, Inc. and Fred P. Lampropoulos as of the 11th day of December, 2017*†
10.25	Form of First Amendment to Employment Agreement for each of Ronald A. Frost, Bernard J. Birkett, Justin J. Lampropoulos, Joseph C. Wright, and Brian G. Lloyd*†
10.26	First Amendment to Lease Agreement dated May 22, 2017 for office and manufacturing facility*
10.27	Asset Purchase Agreement by and between Merit Medical Systems, Inc. and Becton, Dickinson and Company dated November 15, 2017*
10.28	Fourth Amendment to Second Amended and Restated Credit Agreement, dated March 28, 2018, entered into by and among Merit Medical Systems, Inc., Wells Fargo Bank National Association and the lenders and subsidiary guarantors named therein*
10.29	Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan effective May 24, 2018†
10.30	Indemnification Agreement dated made and entered into by and between Merit Medical Systems, Inc. and Raul Parra as of the 1st day of August, 2018.*†
10.31	Employment Agreement made and entered into by and between Merit Medical Systems, Inc. and Raul Parra as of the 1st day of August, 2018.*†
10.32	First Amendment to the Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan effective December 14, 2018†
10.33	Form of Indemnification Agreement, dated December 14, 2018 between the Company and Jill Anderson and Elizabeth Huebner†

10.34	Asset Purchase Agreement, dated December 14, 2018, by and among Merit Medical Systems, Inc., Vascular Insights, LLC and VI Management, Inc.
21	Subsidiaries of Merit Medical Systems, Inc.
23.1	Consent of Independent Registered Public Accounting Firm
31.1	Certification of Chief Executive Officer
31.2	Certification of Chief Financial Officer
32.1	Certification of Chief Executive Officer
32.2	Certification of Chief Financial Officer
101	The following materials from the Merit Medical Systems, Inc. Annual Report on Form 10-K for the fiscal year ended December 31, 2018, formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Statements of Operations, (ii) Consolidated Balance Sheets, (iii) Consolidated Statements of Comprehensive Income (iv) Consolidated Statements of Stockholders' Equity, (v) Consolidated Statements of Cash Flows, and (vi) related notes.

* These exhibits are incorporated herein by reference.
† Indicates management contract or compensatory plan or arrangement.

(c) Schedules:

None

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 Annual Report on Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized, on March 1, 2019.

MERIT MEDICAL SYSTEMS, INC.

By: /s/ FRED P. LAMPROPOULOS
Fred P. Lampropoulos, President and
Chief Executive Officer

ADDITIONAL SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, this Annual Report on form 10-K has been signed below by the following persons in the capacities indicated on March 1, 2019.

Signature	Capacity in Which Signed
/s/: FRED P. LAMPROPOULOS Fred P. Lampropoulos	President, Chief Executive Officer and Director (Principal executive officer)
/s/: RAUL PARRA Raul Parra	Chief Financial Officer and Treasurer (Principal financial and accounting officer)
/s/: A. SCOTT ANDERSON A. Scott Anderson	Director
/s/: JILL ANDERSON Jill Anderson	Director
/s/: THOMAS J. GUNDERSON Thomas J. Gunderson	Director
/s/: ELIZABETH HUEBNER Elizabeth Huebner	Director
/s/: NOLAN E. KARRAS Nolan E. Karras	Director
/s/: DAVID M. LIU David M. Liu	Director
/s/: FRANKLIN J. MILLER Franklin J. Miller	Director
/s/: F. ANN MILLNER F. Ann Millner	Director
/s/: KENT W. STANGER Kent W. Stanger	Director
/s/: MICHAEL E. STILLABOWER Michael E. Stillabower	Director

Exhibit 2.5

AGREEMENT AND PLAN OF MERGER

BY AND AMONG

CIANNA MEDICAL, INC.,

CMI TRANSACTION CO.,

MERIT MEDICAL SYSTEMS, INC.,

and

FORTIS ADVISORS LLC,

AS THE SECURITYHOLDERS' REPRESENTATIVE

Dated as of October 1, 2018

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AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER (this "Agreement") is made and entered into as of October 1, 2018 (the "Agreement Date"), by and among Merit Medical Systems, Inc., a Utah corporation ("Parent"), CMI Transaction Co., a Delaware corporation and a wholly owned subsidiary of Parent ("Merger Sub"), Cianna Medical, Inc., a Delaware corporation (the "Company"), and Fortis Advisors LLC, a Delaware limited liability company, in its capacity as the Securityholders' Representative hereunder (the "Securityholders' Representative"). All capitalized terms that are used but not defined herein shall have the respective meanings ascribed thereto in Annex A.

RECITALS

WHEREAS, the board of directors of the Company has, by resolutions duly adopted, unanimously: (i) declared that the Merger (as defined below) and the other transactions contemplated by this Agreement are advisable, fair to and in the best interests of the Company and its stockholders; (ii) approved this Agreement in accordance with the provisions of General Corporation Law of the State of Delaware ("Delaware Law"); and (iii) recommended that its stockholders adopt this Agreement and approve the Merger.

WHEREAS, the respective boards of directors of Parent and Merger Sub have, by resolutions duly adopted, unanimously declared that the Merger and the other transactions contemplated by this Agreement are advisable and approved this Agreement in accordance with the provisions of Delaware Law.

NOW, THEREFORE, in consideration of the covenants, representations and warranties set forth herein, and for other good and valuable consideration, the parties, intending to be legally bound, agree as follows:

ARTICLE I
THE MERGER

1.1 The Merger. At the Effective Time and upon the terms and subject to the conditions set forth in this Agreement, and pursuant to the applicable provisions of Delaware Law, Merger Sub shall be merged (the "Merger") with and into the Company, the separate corporate existence of Merger Sub shall cease, and the Company shall continue as the surviving corporation in the Merger (the "Surviving Corporation").

1.2 Closing; Effective Time. The consummation of the Merger (the "Closing") shall take place as soon as practicable, but no later than two (2) Business Days, after the satisfaction or waiver of the last of the conditions set forth in Article VI to be satisfied or waived (other than those conditions that by their nature are to be satisfied at the Closing, but subject to the satisfaction or waiver of such conditions as of the Closing), or at such other time as the parties hereto agree (the actual date on which the Closing takes place being the "Closing Date"). The Closing shall take place at the offices of Wilson Sonsini Goodrich & Rosati P.C., 12235 El Camino Real, San Diego, CA 92130 (or, if agreed by the parties, electronically through the exchange of documents), or at such other location as the parties hereto agree. In connection with the Closing, Parent and the Company shall cause the Merger to be made effective by filing a Certificate of Merger in the form attached hereto as Exhibit A (the "Certificate of Merger") with the Secretary of State of the State of Delaware in accordance with the relevant provisions of Delaware Law (the time of such filing (or such later time as may be agreed in writing by the Company and Parent and specified in the Certificate of Merger) being the "Effective Time")).

1.3. Effect of the Merger. At the Effective Time, the effect of the Merger shall be as provided in this Agreement, the Certificate of Merger, and the applicable provisions of Delaware Law. Without limiting the generality of the foregoing, and subject thereto, at the Effective Time all the property, rights, privileges, powers and franchises of the Company and Merger Sub shall vest in the Surviving Corporation, and all debts, liabilities and duties of the Company and Merger Sub shall become the debts, liabilities and duties of the Surviving Corporation.

1.4 Certificate of Incorporation; Bylaws. Unless otherwise agreed to by Parent and the Company prior to the Closing, at the Effective Time:

(a) the certificate of incorporation of Merger Sub, as in effect immediately prior to the Effective Time, shall be the certificate of incorporation of the Surviving Corporation until thereafter amended as provided by Delaware Law and such certificate of incorporation; *provided*, *however*, that at the Effective Time, Article I of the certificate of incorporation of the Surviving Corporation shall be amended and restated in its entirety to read as follows: "The name of the corporation is 'Cianna Medical, Inc.'" and such certificate of incorporation shall be amended, if necessary, so as to comply with Section 5.6; and

(b) the bylaws of Merger Sub, as in effect immediately prior to the Effective Time, shall be the bylaws of the Surviving Corporation until thereafter amended; *provided*, *however*, that at the Effective Time, references to Merger Sub shall be replaced by the name of the Surviving Corporation and such bylaws shall be amended, if necessary, so as to comply with Section 5.6.

1.5 Directors and Officers. The initial directors of the Surviving Corporation shall be the directors of Merger Sub immediately prior to the Effective Time, until their respective successors are duly elected or appointed and qualified. The initial officers of the Surviving Corporation shall be the officers of Merger Sub immediately prior to the Effective Time, until their respective successors are duly appointed.

1.6 Effect on Capital Stock. At the Effective Time, by virtue of the Merger and without any further action on the part of Parent, Merger Sub, the Company, any Company Stockholder or the Securityholders' Representative:

(a) Each share of Series B Preferred Stock issued and outstanding immediately prior to the Effective Time (other than Dissenting Shares and Cancelled Shares) shall be converted into a right to receive an amount in cash equal to: (i) the Per Share Series B Closing Merger Consideration Amount, *plus* (ii) the Per Share Escrow Release Amount, if any, *plus* (iii) the Per Share Earn-out Payment Amounts, if any, *plus* (iv) the Per Share Expense Fund Distribution Amount, if any, *plus* (v) the Per Share Excess Payment Amount, if any.

(b) Each share of Series A Preferred Stock issued and outstanding immediately prior to the Effective Time (other than Dissenting Shares and Cancelled Shares) shall be converted into a right to receive an amount in cash equal to: (i) the Per Share Series A Closing Merger Consideration Amount, *plus* (ii) the Per Share Escrow Release Amount, if any, *plus* (iii) the Per Share Earn-out Payment Amounts, if any, *plus* (iv) the Per Share Expense Fund Distribution Amount, if any, *plus* (v) the Per Share Excess Payment Amount, if any.

(c) Each share of Company Common Stock issued and outstanding immediately prior to the Effective Time (other than Dissenting Shares and Cancelled Shares) shall be converted into a right to receive an amount in cash equal to: (i) the Per Share Remaining Closing Merger Consideration Amount, *plus* (ii) the Per Share Escrow Release Amount, if any, *plus* (iii) the Per Share Earn-out Payment Amounts, if any, *plus* (iv) the Per Share Expense Fund Distribution Amount, if any, *plus* (v) the Per Share Excess Payment Amount, if any.

(d) Any shares of Company Common Stock then held by the Company or Parent or any direct or indirect wholly-owned Subsidiary of the Company or of Parent (including any treasury shares of the Company) shall be canceled and retired and shall cease to exist, and no consideration shall be delivered in exchange therefor ("Cancelled Shares"), and

(e) Each share of the common stock, $0.0001 par value per share, of Merger Sub then outstanding shall be converted into one share of common stock of the Surviving Corporation.

(f) The following defined terms used in this Section 1.6 that are not defined elsewhere in this Agreement shall have the following meanings:

(i) "Aggregate Liquidation Preference" means an amount equal to (A) (i) the Per Share Series B Liquidation Preference, *multiplied by* (ii) the number of shares of Series B Preferred Stock outstanding immediately prior to the Effective Time, *plus* (B) (i) the Per Share Series A Liquidation Preference, *multiplied by* (ii) the number of shares of Series A Preferred Stock outstanding immediately prior to the Effective Time.

(ii) "Aggregate Remaining Closing Merger Consideration" means an amount equal to (A) the Closing Merger Consideration, *less* (B) the Aggregate Liquidation Preference.

(iii) "Net Earn-out Payment" means, with respect to any Earn-out Payment, an amount equal to (A) such Earn-out Payment, *less* (B) an aggregate amount equal to, without duplication, (i) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan with respect to such Earn-out Payment, if any, (ii) the aggregate amount payable to COC Participants in respect of their interest in COC Agreements with respect to such Earn-out Payment, if any, and (iii) the aggregate amount payable to JPM under the JPM Engagement Letter with respect to such Earn-out Payment, if any.

(iv) "Net Escrow Release Amount" means, with respect to any Escrow Release Amount, an amount equal to (A) such Escrow Release Amount, *less* (B) an aggregate amount equal to, without duplication, (i) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan with respect to such Escrow Release Amount, if any, (ii)

the aggregate amount payable to COC Participants in respect of their interest in COC Agreements with respect to such Escrow Release Amount, if any, and (iii) the aggregate amount payable to JPM under the JPM Engagement Letter with respect to such Escrow Release Amount, if any.

(v) "Net Excess Payment Amount" means an amount equal to (A) the Excess Payment Amount, *less* (B) an aggregate amount equal to, without duplication, (i) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan with respect to such Excess Payment Amount, if any, (ii) the aggregate amount payable to COC Participants in respect of their interest in COC Agreements with respect to such Excess Payment Amount, if any, and (iii) the aggregate amount payable to JPM under the JPM Engagement Letter with respect to such Excess Payment Amount, if any.

(vi) "Net Expense Fund Distribution Amount" means an amount equal to (A) the Expense Fund Distribution Amount, *less* (B) an aggregate amount equal to, without duplication, (i) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan with respect to such Expense Fund Distribution Amount, if any, (ii) the aggregate amount payable to COC Participants in respect of their interest in COC Agreements with respect to such Expense Fund Distribution Amount, if any, and (iii) the aggregate amount payable to JPM under the JPM Engagement Letter with respect to such Expense Fund Distribution Amount, if any.

(vii) "Per Share Earn-out Payment Amount" means, with respect to any Earn-out Payment, an amount equal to (A) such applicable Net Earn-out Payment, *divided by* (B) the Total Fully Diluted Outstanding Shares.

(viii) "Per Share Escrow Release Amount" means, with respect to any Escrow Release Amount, an amount equal to (A) such applicable Net Escrow Release Amount, *divided by* (B) the Total Fully Diluted Outstanding Shares.

(ix) "Per Share Excess Payment Amount" means an amount equal to (A) the Net Excess Payment Amount, *divided by* (B) the Total Fully Diluted Outstanding Shares.

(x) "Per Share Expense Fund Distribution Amount" means an amount equal to (A) the Net Expense Fund Distribution Amount, *divided by* (B) the Total Fully Diluted Outstanding Shares.

(xi) "Per Share Remaining Closing Merger Consideration Amount" means an amount equal to (A) the Aggregate Remaining Closing Merger Consideration, *divided by* (B) the Total Fully Diluted Outstanding Shares.

(xii) "Per Share Series A Closing Merger Consideration Amount" means an amount equal to (A) the Per Share Series A Liquidation Preference, *plus* (B) the Per Share Remaining Closing Merger Consideration Amount.

(xiii) "Per Share Series A Liquidation Preference" means an amount, for each share of Series A Preferred Stock outstanding immediately prior to the Effective Time, equal to the Liquidation Preference (as defined in the Company Charter) for such share of Series A Preferred Stock outstanding immediately prior to the Effective Time, *plus* all then declared and unpaid dividends on such share of Series A Preferred Stock, if any, as of immediately prior to the Effective Time.

(xiv) "Per Share Series B Closing Merger Consideration Amount" means an amount equal to (A) the Per Share Series B Liquidation Preference, *plus* (B) the Per Share Remaining Closing Merger Consideration Amount.

(xv) "Per Share Series B Liquidation Preference" means an amount, for each share of Series B Preferred Stock outstanding immediately prior to the Effective Time, equal to the Liquidation Preference (as defined in the Company Charter) for such share of Series B Preferred Stock outstanding immediately prior to the Effective Time, *plus* all then declared and unpaid dividends on such share of Series B Preferred Stock, if any, as of immediately prior to the Effective Time.

1.7 Dissenting Shares

(a) Notwithstanding anything in this Agreement to the contrary, any share of Company Capital Stock that is issued and outstanding immediately prior to the Effective Time and which is held by a stockholder who has properly exercised his, her or its appraisal rights under Delaware Law (such share being a "Dissenting Share," and such stockholder being a "Dissenting Stockholder"), shall not be converted into the right to receive the consideration to which the holder of such share would be entitled pursuant to Section 1.6, but rather shall be converted into the right to receive such consideration as may be determined to be due with respect to such Dissenting Share pursuant to Delaware Law. If any Dissenting Stockholder fails to perfect such stockholder's appraisal rights under Delaware Law, or effectively withdraws or otherwise loses such rights with respect to any Dissenting Shares, such Dissenting Shares shall thereupon automatically be converted into the right to receive the applicable amounts provided in Section 1.6, pursuant to the exchange procedures set forth in Section 1.10.

(b) At the Effective Time, the Dissenting Shares shall no longer be outstanding and shall automatically be canceled and shall cease to exist, and each holder of Dissenting Shares shall cease to have any rights with respect thereto, except the right to receive the fair value of such shares in accordance with the provisions of Section 262 of Delaware Law. Notwithstanding the provisions of Section 1.10(a), if any holder of Dissenting Shares shall effectively withdraw or lose (through failure to perfect or otherwise) such holder's appraisal rights under Section 262 of Delaware Law, or a court of competent jurisdiction shall determine that such holder is not entitled to relief provided under Section 262 of Delaware Law, then, as of the later of the Effective Time and the occurrence of such event, such holder's shares of Company Capital Stock shall automatically be converted into and represent only the right to receive the consideration for Company Capital Stock set forth in Section 1.6, without interest, and at such times and subject to such conditions as are set forth in Section 1.6. The Company shall give (i) Parent prompt notice of any written demand for appraisal received by the Company pursuant to the applicable provisions of Delaware Law and (ii) the opportunity to participate in all negotiations and proceedings with respect to such demands. The Company shall not, except with the prior written consent of Parent, make any payment with respect to any such demands or offer to settle or settle any such demands.

1.8 Treatment of Company Options and Company Warrants.

(a) Immediately prior to the Effective Time, each outstanding Company Option shall become fully vested and exercisable in full. At the Effective Time, each outstanding Company Option shall be cancelled and converted into the right to receive for each share of Company Common Stock subject to such Company Option, the sum of (i) (A) the Per Share Remaining Closing Merger Consideration Amount *minus* (B) the exercise price of such Company Option (the "Closing Net Option Payment"), *plus* (ii) the Per Share Escrow Release Amount, if any, *plus* (iii) the Per Share Expense Fund Distribution Amount, if any, *plus* (iv) the Per Share Earn-out Payment Amounts, if any, *plus* (v) the Per Share Excess Payment Amount, if any (it being understood that, if the exercise price payable in respect of a share of Company Common Stock subject to any Company Option exceeds the sum of the Per Share Remaining Closing Merger Consideration Amount, the Per Share Escrow Release Amount, the Per Share Expense Fund Distribution Amount, the Per Share Excess Payment Amount and all Per Share Earn-out Payment Amounts, if any, then the amount payable hereunder with respect to such Company Option shall be zero). Within five (5) Business Days after the Closing, Parent shall, or shall cause the Surviving Corporation to, pay to each of the holders of Company Options, the applicable Closing Net Option Payment, if any, for each share underlying such holder's Company Options, less any required withholding of Taxes under applicable Law. On the date on which the Per Share Escrow Release Amount, the Per Share Expense Fund Distribution Amount, the Per Share Earn-out Payment Amounts, or the Per Share Excess Payment Amount, if any, are payable to holders of Company Capital Stock pursuant to Section 1.6, Parent shall, or shall cause the Surviving Corporation to, disburse the corresponding amounts under this Section 1.8 due to such former holders of Company Options, less any required withholding of Taxes under applicable Law. Prior to the Effective Time, the Company shall take all actions reasonably necessary to effect the transactions set forth in this Section 1.8(a), including delivering any notice required by the terms of the Company Incentive Plan.

(b) At the Effective Time, each unexercised Company Warrant whose holder thereof has executed and delivered a Warrant Letter Agreement prior to the Effective Time shall be cancelled and converted into the right to receive for each share of Series B Preferred Stock subject to such Company Warrant, the sum of (i) (A) the Per Share Series B Closing Merger Consideration Amount *minus* (B) the exercise price of such Company Warrant (the "Closing Net Warrant Payment"), *plus* (ii) the Per Share Escrow Release Amount, if any, *plus* (iii) the Per Share Expense Fund Distribution Amount, if any, *plus* (iv) the Per Share Earn-out Payment Amounts, if any, *plus* (v) the Per Share Excess Payment Amount, if any (it being understood that, if the exercise price payable in respect of a share of Series B Preferred Stock subject to any Company Warrant exceeds the sum of the Per Share Series B Closing Merger Consideration Amount, the Per Share Escrow Release Amount, the Per Share Expense Fund Distribution Amount, the Per Share Excess Payment Amount and all Per Share Earn-out Payment Amounts, if any, then the amount payable hereunder with respect to such Company Warrant shall be zero). Within five (5) Business Days after the Closing, Parent shall, or shall cause the Surviving Corporation to, pay to each of the holders of Company Warrants who has executed a Warrant Letter Agreement in respect of such holders' Company Warrants prior to the Effective Time, the applicable Closing Net Warrant Payment, less any required withholding of Taxes under applicable Law. On the date on which the Per Share Escrow Release Amount, the Per Share Expense Fund Distribution Amount, the Per Share Earn-out Payment Amounts or the Per Share Excess Payment Amount, if any, are payable to holders of Company Capital Stock pursuant to Section 1.6, Parent shall, or shall cause the Surviving Corporation to, disburse the corresponding amounts under this Section 1.8 due to such former holders of Company Warrants who executed a Warrant Letter Agreement in respect of such holders' Company Warrants prior to the Effective Time, less any required withholding of Taxes under applicable Law. At the Effective Time, each unexercised Company Warrant whose holder thereof has not executed and delivered a Warrant Letter Agreement prior to the Effective Time shall be subject to automatic "cashless exercise" pursuant to the terms of the respective Company Warrant, the respective Company Warrant shall terminate, and the holder will be deemed to be the holder of the number and type of shares of Company Capital Stock as of the Effective Time as provided for in the Company Warrant upon such automatic "cashless exercise."

(c) As promptly as practicable following the Agreement Date and in any event not later than three (3) Business Days thereafter, the Company shall mail to each holder of a Company Warrant a letter agreement substantially in the form attached as Exhibit B (a "Warrant Letter Agreement") and instructions for completing, executing and returning such Warrant Letter Agreement.

(d) For purposes of clarification, it is the intent of Parent, Merger Sub, the Company and the Company Securityholders that the inclusion of clause (b) in the definition of "Closing Merger Consideration" would not increase the actual total Merger Consideration paid hereunder by Parent (as the inclusion of such clause (b) provides for an effective allocation of the cash amount of such exercise prices referenced in such clause (b) to Company Stakeholders other than holders of Company Options and Company Warrants in their capacities as such holders and such exercise prices referenced in such clause (b) constitutes a reduction in the amount paid to holders of Company Options and Company Warrants in their capacities as such holders in the calculation of "Closing Net Option Payment" and "Closing Net Warrant Payment").

1.9 Payments Regarding KSP Plan, COC Agreements and JPM Engagement Letter.

(a) Within five (5) Business Days after the Closing, Parent shall cause the Surviving Corporation to pay to (1) each KSP Participant, the amount payable to such KSP Participant in respect of such KSP Participant's interest in the KSP Plan with respect to the Closing Merger Consideration, and (2) each COC Participant, the amount payable to such COC Participant in respect of such COC Participant's interest in the COC Agreement to which such COC Participant is a party with respect to the Closing Merger Consideration, in each case, less any required withholding of Taxes under applicable Law.

(b) Within five (5) Business Days after any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount is payable in accordance with this Agreement by Parent to Company Securityholders, Parent shall cause the Surviving Corporation to pay to (1) each KSP Participant, the amount payable to such KSP Participant in respect of such KSP Participant's interest in the KSP Plan with respect to any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount payable hereunder, and (2) each COC Participant, the amount payable to such COC Participant in respect of such COC Participant's interest in the COC Agreement to which such COC Participant is a party with respect to any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount payable hereunder, in each case, less any required withholding of Taxes under applicable Law.

(c) To the extent that any consideration is payable by the Company under the JPM Engagement Letter in respect of any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount, Parent shall cause the Surviving Corporation to pay to JPM the applicable amount owed thereunder, if any, at or around the same time as the payment of such applicable Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount to Company Securityholders hereunder.

1.10 Surrender of Certificates.

(a) At the Effective Time, (i) all shares of Company Capital Stock outstanding immediately prior to the Effective Time shall automatically be cancelled and retired and shall cease to exist, (ii) no holder of record of a certificate that immediately prior to the Effective Time represented outstanding shares of Company Capital Stock (a "Certificate") shall have any rights as a stockholder of the Company and (iii) each Certificate (x) representing any outstanding shares of Company Capital Stock shall thereafter represent only the right to receive the Merger Consideration payable in respect of such shares as set forth in this Agreement and (y) representing any Dissenting Shares shall thereafter represent only the right to receive the payments described in Section 1.7.

(b) At or prior to the Effective Time, Parent shall deposit or shall cause to be deposited with a paying agent designated by Parent and reasonably acceptable to the Company (the "Paying Agent"), for the benefit of Company Stockholders in respect of their Company Capital Stock, the applicable portion of the Closing Merger Consideration payable to the Company Stockholders hereunder in respect of their Company Capital Stock. From and after the Effective Time, the Paying Agent shall act as the agent of Parent and the Surviving Corporation in effecting any amounts to be paid under this Agreement to the Company Stockholders hereunder in respect of their Company Capital Stock. The Company Securityholders shall bear all fees and costs incurred in connection with the engagement and use of Paying Agent's services payable at the Closing in connection with the Merger and other transactions contemplated hereby (the "Paying Agent Costs") as such Paying Agent Costs shall constitute "Transaction Expenses" in accordance with the terms hereof.

(c) Promptly after the Closing Date (and in any event within five (5) Business Days after the Closing Date), the Company shall cause the Paying Agent to mail and/or deliver via electronic means to each holder of record of a Certificate immediately prior to the Effective Time (i) a letter of transmittal in substantially the form attached hereto as Exhibit C (a "Letter

of Transmittal") and (ii) instructions for use in effecting the surrender of the Certificates in exchange for payment of the consideration to which such holder may be entitled pursuant to Section 1.6 hereof. Upon surrender of a Certificate, the holder of a Certificate surrendered for cancellation to the Paying Agent, together with a Letter of Transmittal, duly executed and completed in accordance with the instructions thereto, shall be entitled to receive in exchange therefor a payment of the applicable amount provided in Section 1.6 with respect to such Certificate (after giving effect to any required Tax withholdings pursuant to Section 1.12) and the Certificate so surrendered shall forthwith be cancelled. Parent shall, no later than three (3) Business Days after the Paying Agent's receipt of a properly surrendered Certificate and executed Letter of Transmittal, cause the Paying Agent to make the payment of the applicable amount of the Closing Merger Consideration provided in Section 1.6 to the holder of such Certificate, in cash, by wire transfer of immediately available funds to the account designated by such holder in the Letter of Transmittal delivered with such Certificate. Parent shall cause the Paying Agent to pay to each holder of a properly surrendered Certificate and executed Letter of Transmittal, at the time and in the manner set forth in Section 1.13, the applicable amount of any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and Excess Payment Amount, in each case, as set forth herein, to such holder, in cash, by wire transfer of immediately available funds to the account designated by such holder in the Letter of Transmittal delivered with such Certificate. No interest shall be paid or accrued after the Effective Time on any amount payable upon due surrender of the Certificates. If payment is to be made to a Person other than the registered holder of the Certificate surrendered, it shall be a condition of such payment that the Certificate so surrendered shall be properly endorsed with a medallion stamp guarantee or otherwise in proper form for transfer and that the Person requesting such payment shall pay any transfer or other Taxes required by reason of the payment to a Person other than the registered holder of the Certificate surrendered or establish to the reasonable satisfaction of the Paying Agent that such Tax was paid or is not applicable.

(d) At the Effective Time, the stock transfer books of the Company shall be closed, and there shall thereafter be no further registration of transfers of shares of Company Capital Stock outstanding immediately prior to the Effective Time on the records of the Company. After the Effective Time, no transfer of Company Capital Stock shall thereafter be made on the stock transfer books of the Surviving Corporation. If, after the Effective Time, Certificates and a duly executed and properly delivered Letter of Transmittal are presented to the Paying Agent, Parent or the Surviving Corporation, they shall be cancelled and exchanged for the applicable portion of the Merger Consideration.

(e) Any portion of the funds received by the Paying Agent (including the proceeds of any investments thereof) which remains unclaimed by the Company Stockholders for one (1) year after the date of payment to the Paying Agent shall be delivered to the Surviving Corporation. Any Company Stockholder that has not theretofore surrendered any Certificate and submitted a Letter of Transmittal in accordance with the requirements set forth therein and in this Article I, or otherwise received any portion of the Merger Consideration due and payable to such Company Stockholder pursuant to this Agreement, shall thereafter look only to Parent and the Surviving Corporation for payment of the applicable portion of the Merger Consideration (after giving effect to any required Tax withholdings pursuant to Section 1.12 and without any interest thereon) upon due surrender of any applicable Certificate. Notwithstanding anything to the contrary in this Section 1.10(e), none of Parent, the Merger Sub, the Company, the Surviving Corporation, the Securityholders' Representative, the Paying Agent or any other Person shall be liable to any Company Stockholder for any amount properly delivered to a public official pursuant to applicable abandoned property, escheat or similar applicable Laws.

1.11 Lost, Stolen or Destroyed Certificates. In the event any Certificate shall have been lost, stolen or destroyed, upon the execution and delivery of a certificate of loss and indemnification agreement substantially in the form attached hereto as Exhibit E (a "Lost Certificate Agreement") by such record holder, Parent shall cause the Paying Agent to pay to the record holder of such Certificate the applicable payment of the applicable amounts of the Closing Merger Consideration provided in Section 1.6 to be paid in respect of the shares represented thereby upon due surrender of and deliverable in respect of the shares represented by such Certificate pursuant to this Agreement and such Person also shall be entitled to the right to receive such Person's applicable portion of the Escrow Release Amount, the Expense Fund Distribution Amount, Excess Payment Amount and Earn-out Payments.

1.12 Withholding. Each of Parent, the Surviving Corporation, or the Paying Agent shall be entitled to deduct and withhold from any portion of any payment payable pursuant to this Agreement to any Company Stakeholder such amounts as it is required to deduct and withhold with respect to the making of such payment under the Code and the rules and regulations promulgated thereunder, or any similar provision of state, local or non-U.S. Law. To the extent that amounts are so withheld by Parent, the Surviving Corporation, or the Paying Agent, as the case may be, such withheld amounts (a) shall be timely remitted by Parent, the Surviving Corporation, or the Paying Agent, as the case may be, to the applicable Governmental Entity and (b) shall be treated for all purposes of this Agreement as having been paid to such Company Stakeholder.

1.13 Earn-out Payments.

(a) Earn-out. In accordance with the provisions of this Section 1.13, Parent shall pay or cause to be paid to the Paying Agent or the Surviving Corporation, as applicable, for the benefit of the Company Stakeholders the contingent cash payments as follows (each, an "Earn-out Payment" and together, the "Earn-out Payments") following the achievement of the corresponding milestones as follows:

(i) Supply Chain Milestone.

(1) Payment of $15,000,000 upon the achievement of the Supply Chain Milestone (as defined hereafter). The term "Supply Chain Milestone" means the satisfaction of each of the following requirements (each, a "Requirement") on or prior to June 30, 2019:

A. Annual manufacturing capacity for SCOUT Surgical Guidance Consoles (Model No. SSC-01) of at least 1,000 units (which Requirement has been met prior to the Agreement Date);

B. Annual manufacturing capacity for SCOUT Surgical Guides, Multiple Use (Model No. SG-01) of at least 2,000 units (which Requirement has been met prior to the Agreement Date);

C. Annual manufacturing capacity for SCOUT Delivery Needle and Reflectors (Model Nos. SSR05-01X; SSR75-01X, and SSR10-01X, whereby the "X" can be omitted, as in the currently marketed reflector product, or included as any alphanumeric character to represent a future reflector in the current delivery system) of at least 75,000 units;

D. Cost of Goods for SCOUT Surgical Guidance Consoles (Model No. SSC-01) of $3,914 per unit (which Requirement has been met prior to the Agreement Date);

E. Cost of Goods for SCOUT Surgical Guides, Multiple Use (Model No. SG-01) of $285 per unit (which Requirement has been met prior to the Agreement Date); and

F. Cost of Goods for SCOUT Delivery Needle and Reflectors (Model Nos. SSR05-01X; SSR75-01X, and SSR10-01X, whereby the "X" can be omitted, as in the currently marketed reflector product, or included as any alphanumeric character to represent a future reflector product in the current delivery system) of $85 or less per unit.

(2) The satisfaction of the Requirement set forth in clause (C) may be demonstrated as follows: at any time during the period between the Closing Date and June 30, 2019, one or more of the Company's Current Suppliers or an application specific integrated circuit ("ASIC") supplier of such products (which ASIC supplier shall be reasonably approved by Parent) provides a quote for, or enters into a purchase agreement with, Parent (or any Subsidiary thereof, including the Surviving Corporation) for 75,000 or more units annually.

(3) The satisfaction of the Requirement set forth in clause (F) may be demonstrated as follows: at any time during the period between the Closing Date and June 30, 2019, one or more of the Company's Current Suppliers or an ASIC supplier of such products (which ASIC supplier shall be reasonably approved by Parent) provides a quote for, or enters into a purchase agreement with, Parent (or any Subsidiary thereof, including the Surviving Corporation) for the annual production of 30,000 or more units, deliverable at an average rate of 2,500 or more units per month at a cost of $85 or less per unit.

(i) Net Sales Milestones.

(1) a payment equal to 175% of the amount by which Net Sales for the period of January 1, 2019 through and including December 31, 2019 exceed Net Sales for the period of January 1, 2018 through and including December 31, 2018;

(2) a payment equal to 175% of the amount by which Net Sales for the period of January 1, 2020 through and including December 31, 2020 exceed Net Sales for the period of January 1, 2019 through and including December 31, 2019;

(3) a payment equal to 175% of the amount by which Net Sales for the period of January 1, 2021 through and including December 31, 2021 exceed Net Sales for the period of January 1, 2020 through and including December 31, 2020; and

(4) a payment equal to 175% of the amount by which Net Sales for the period of January 1, 2022 through and including December 31, 2022 exceed Net Sales for the period of January 1, 2021 through and including December 31, 2021.

Each of the payments under this Section 1.13(a)(ii) shall be referred to as a "Sales Milestone Payment." Notwithstanding anything contained herein to the contrary, in no event shall the total Sales Milestone Payments under this Section 1.13(a)(ii) exceed Fifty Million Dollars ($50,000,000).

(b) Payment of Earn-out. Parent shall pay, or shall cause the Paying Agent or Surviving Corporation to pay, the applicable Earn-out Payment that is due and payable, if any, to the Company Stakeholders in accordance with Sections 1.6, 1.8 and 1.9, within five (5) Business Days of the date on which such Earn-out Payment is deemed final and binding on the parties in accordance with this Section 1.13.

(c) Parent Obligations.

(i) Parent and its Affiliates (including the Surviving Corporation and any of its Subsidiaries) shall operate the business of the Surviving Corporation as Parent, in its sole discretion, deems appropriate, *provided that*, Parent shall not, and shall not authorize or permit its Affiliates (including the Surviving Corporation and any of its other Subsidiaries) to take any action with the intent of either (A) avoiding the achievement of the Supply Chain Milestone or (B) avoiding or reducing the payment of any Sales Milestone Payment. In addition, Parent shall, and shall cause its Affiliates (including the Surviving Corporation and any of its other Subsidiaries) to account for Net Sales in accordance with GAAP and in compliance with applicable Law.

(ii) Without limiting the foregoing in Section 1.13(b)(i), with respect to the achievement of the Supply Chain Milestone, for the period from the Closing Date through, and including, June 30, 2019, Parent shall, and shall cause its Affiliates (including the Surviving Corporation), to (A) keep and maintain the supply chain procedures and processes of the Company substantially as in effect as of immediately prior to the Closing; (B) keep and maintain the quality control procedures and processes of the Company substantially as in effect as of immediately prior to the Closing (except for the Company's Corrective Action and Preventive Action (CAPA) procedures and processes); (C) comply with the Company's agreements with its suppliers as in effect on the Agreement Date and not terminate any such agreement except to the extent that Parent reasonably believes that any such supplier is in material breach of its obligations thereunder and Parent shall provide advance written notice of such termination at least five days prior to such anticipated termination, along with the reasons for such termination, to the Securityholders' Representative; and (D) provide those Employees determined by the Parent and the Company's current chief executive officer following the Agreement Date and prior to the Closing with an achievement bonus payable upon the achievement of the Supply Chain Milestone, with the amount and other terms of such achievement bonus to be determined by Parent following the Agreement Date and prior to the Closing following consultation with the Company's current chief executive officer.

(iii) Upon the written request of the Securityholders' Representative (but no more often than once in a calendar quarter), Parent will allow the Independent Accountant or, if so desired by the Securityholders' Representative, another independent, reputable entity with reasonable expertise in supply chain matters that is reasonably acceptable to Parent (such entity, an "Other Expert") (subject to the Independent Accountant or such Other Expert executing a non-disclosure agreement in respect of confidential information with respect to such inquiry in customary form and substance) to have reasonable access to the books and records of Parent and its Affiliates (including the Surviving Corporation), to the extent necessary to determine the progress towards achievement of the Supply Chain Milestone. Any such examination shall be made during reasonable business hours at the place of business of Parent and its Subsidiaries (including the Surviving Corporation) and shall be at the Securityholders' Representative's expense (on behalf of the Company Securityholders). Within thirty (30) days of the achievement of the Supply Chain Milestone, Parent will provide the Securityholders' Representative written notice that the Supply Chain Milestone has been met.

(iv) Sales Milestone Reporting.

(1) Within sixty (60) days of the end of the fiscal year ending December 31, 2018, and within forty-five (45) days of the end of each of the first three calendar quarters (commencing with the calendar quarter period ending March 31, 2019 and ending with the calendar quarter period ending September 30, 2022), Parent shall provide the Securityholders' Representative with a quarterly report substantially in the form attached hereto as Exhibit F-2, setting forth in reasonable detail the calculation of Net Sales for such calendar quarter and the preceding three calendar quarters. Within sixty (60) days of the end of each fiscal year (commencing with the calendar year ended December 31, 2019 and ending with the calendar year ending December 31, 2022), Parent shall provide the Securityholders' Representative with a report substantially in the form attached hereto as Exhibit F-2, setting forth in reasonable detail the calculation of Net Sales for such calendar quarter and the

entire calendar year, together with a statement calculating the Sales Milestone Payment, if any, payable with respect to such calendar year (each, a "Sales Milestone Statement").

(2) After receipt of any Sales Milestone Statement, the Securityholders' Representative shall have thirty (30) days (the "Milestone **Review Period**") to review such Sales Milestone Statement. During the Milestone Review Period, the Securityholders' Representative and its representatives shall have access to the books and records of the Surviving Corporation, the personnel of, and work papers prepared by, Parent and/or its accountants to the extent that they relate to such Sales Milestone Statement as the Securityholders' Representative or its representatives may reasonably request for the purpose of reviewing such Sales Milestone Statement and to prepare a Milestone Statement of Objections (defined below), *provided that* such access shall be in a manner that does not unreasonably interfere with the business operations of Parent or the Surviving Corporation.

(3) On or prior to the last day of the Milestone Review Period for any Sales Milestone Statement, the Securityholders' Representative may object to such Sales Milestone Statement by delivering to Parent a written statement setting forth its objections in reasonable detail, indicating each disputed item or amount and the basis for its disagreement therewith (a "**Milestone Statement of Objections**"). If the Securityholders' Representative fails to deliver a Milestone Statement of Objections before the expiration of the Milestone Review Period for any Sales Milestone Statement, such applicable Sales Milestone Statement and Sales Milestone Payment, as the case may be, reflected in such Sales Milestone Statement shall be deemed to have been accepted by the Securityholders' Representative. If the Securityholders' Representative delivers a Milestone Statement of Objections before the expiration of the Milestone Review Period for any Sales Milestone Statement, Parent and the Securityholders' Representative shall negotiate in good faith to resolve such objections within twenty (20) days after the delivery of a Milestone Statement of Objections (the "Milestone **Resolution Period**"), and, if the same are so resolved within the Milestone Resolution Period, such applicable Sales Milestone Payment and Sales Milestone Statement with such changes as may be agreed in writing by Parent and the Securityholders' Representative, shall be final and binding.

(4) If the Securityholders' Representative and Parent fail to reach an agreement with respect to all of the matters set forth in a Milestone Statement of Objections before expiration of such applicable Milestone Resolution Period, then any amounts remaining in dispute (the "Milestone **Disputed Amounts**" and any amounts not so disputed, the "Milestone **Undisputed Amounts**") shall be submitted for resolution to the office of the Independent Accountant who, acting as experts and not arbitrators, shall resolve the Milestone Disputed Amounts only and make any adjustments to such applicable Sales Milestone Payments, as the case may be, and Sales Milestone Statement. The parties hereto agree that all adjustments shall be made without regard to materiality. The Independent Accountant shall only decide the specific items under dispute by the parties and their decision for each Milestone Disputed Amount must be within the range of values assigned to each such item in the applicable Sales Milestone Statement and the Milestone Statement of Objections, respectively.

(5) With respect to the Sales Milestone Statements and disputes related thereto, the fees and expenses of the Independent Accountant shall be paid by the Securityholders' Representative (on behalf of the Company Securityholders), on the one hand, and by Parent, on the other hand, based upon the percentage that the amount contested but not awarded to the Securityholders' Representative or Parent, respectively, bears to the aggregate amount contested by the Securityholders' Representative and Parent.

(6) The Independent Accountant shall make a determination as soon as practicable within thirty (30) days (or such other time as the parties hereto shall agree in writing) after its engagement, and its resolution of the applicable Milestone Disputed Amounts and their adjustments to the applicable Sales Milestone Statement and/or the applicable Sales Milestone Payments adjustment shall be conclusive and binding upon the parties hereto.

(v) Notwithstanding anything contained herein to the contrary, neither Parent nor any of its Affiliates (including the Surviving Corporation) may transfer, sell, license or assign, to any Person who is not an Affiliate of Parent, all or substantially all of the rights pertaining to the Earn-out Products (including as a part of a sale that includes all or substantially all of the assets of the Surviving Corporation or all or substantially all of the equity interests of the Surviving Corporation, including by way of a merger or consolidation), unless the transferee, licensee or assignee, as applicable, of such transfer, sale, license or assignment (A) has the capabilities to commercialize a product that is substantially similar to the Earn-out Products, (B) expressly assumes in writing the obligations of Parent under this Section 1.13, including payment of the Earn-out Payments (except to the extent previously paid), and (C) Parent remains responsible for the obligations under this Section 1.13.

(d) Acceleration of Earn-out Payments. Notwithstanding anything to the contrary herein, in the event that any of the following events occur, the maximum amount of each Earn-out Payment that has not yet been satisfied or deemed to have been satisfied shall be immediately due and payable: (i) Parent or the Surviving Corporation commences any proceeding in bankruptcy or for dissolution, liquidation, winding-up, or other relief under state or federal bankruptcy laws; (ii)

any such proceeding is commenced against Parent or the Surviving Corporation or a receiver or trustee is appointed for Parent or the Surviving Corporation or a substantial part of its respective property, and such proceeding or appointment is not dismissed or discharged within thirty (30) days after its commencement; (iii) Parent or the Surviving Corporation (x) makes an assignment for the benefit of creditors, or (y) petitions or applies to any tribunal for the appointment of a custodian, receiver or trustee for all or substantially all of its Assets or (z) has a receiver, custodian or trustee appointed for all or substantially all of its Assets and such receiver, custodian or trustee is not discharged within thirty (30) days thereafter; or (iv) Parent or the Surviving Corporation is unable to, or admits its inability to, pay its debts when they become due.

(e) Earn-out Payments Not a Security. The parties do not intend the right of the Company Stakeholders to receive Earn-out Payments to be a security. Accordingly, the right of a Company Stakeholder to receive Earn-out Payments (i) shall not be represented by a certificate, (ii) does not represent an ownership interest in Parent or the Surviving Corporation, and (iii) does not entitle a Company Stakeholder to any rights common to equityholders of Parent or the Surviving Corporation, other than as expressly set forth herein. The right of a Company Stakeholder to receive Earn-out Payments pursuant to this Agreement shall not be transferable without the prior written consent of Parent. Notwithstanding the foregoing, a Company Securityholder may transfer all or any of such rights (a) as a gift to any charity or any member of his or her family or to any trust or other entity for the benefit of any such family member of such Company Securityholder; *provided that* any such transferee shall agree in writing with Parent, as a condition precedent to such transfer, to be bound by all of the provisions of this Agreement relating to the Earn-out Payments, including, without limitation, Section 5.13 hereof, or (b) by will or the laws of descent and distribution, in which event each such transferee shall be bound by all of the provisions of this Agreement relating to the Earn-out Payments, including, without limitation, Section 5.13 hereof, or (c) by court order, in which event each such transferee shall be bound by all of the provisions of this Agreement relating to the Earn-out Payments, including, without limitation, Section 5.13 hereof. As used in this Section 1.13(e), the word "family" shall include any spouse, lineal ancestor or descendant, brother or sister of a Person; any lineal ancestor or descendant, brother or sister of such Person's spouse; any spouse of any lineal ancestor or descendant, brother or sister of such Person or such Person's spouse; or any lineal ancestor or descendant of any brother or sister of such Person or such Person's spouse.

(f) Offset.

(i) Right of Offset. Parent shall have the right to offset against any and all Earn-out Payments that are due and payable an amount equal to any and all Losses suffered or incurred by any Parent Indemnified Person (such right of Parent, its "Offset Right"), subject to the terms, conditions and limitations set forth in Article VIII.

(ii) Notice of Offset. Parent's Offset Right shall be asserted by giving reasonably prompt written notice to the Securityholders' Representative of a claim for indemnification in accordance with Section 8.5(a) or Section 8.5(b) as applicable, and including in such notice the estimated amount (the "Offset Amount"), if reasonably practicable and to the extent then known, of any Loss incurred or reasonably expected to be incurred by the Parent Indemnified Person that will be subject to the offset right set forth herein (an "Offset Notice"); *provided that* failure to give such Offset Notice shall not terminate Parent's right to exercise its Offset Right, unless the Securityholders' Representative is materially prejudiced by the failure to receive such Offset Notice.

(iii) Offset Objection. The Securityholders' Representative may in good faith, at any time on or before the tenth (10^{th}) Business Day following its receipt of an Offset Notice (the "Offset Objection Period"), object to the Offset Amount provided in the Offset Notice by delivering written notice to Parent (an "Offset Objection"). The Offset Objection shall set forth in reasonable detail the good faith reasons for the objection to such Offset Amount. If the Securityholders' Representative does not timely deliver an Offset Objection, or delivers an Offset Objection that does not object to all of the Offset Amount set forth in the Offset Notice, the Securityholders' Representative shall be deemed to have accepted and agreed to the offset of all or such portion of the Offset Amount and shall be conclusively deemed to have consented to Parent's offset of all or such portion of the Offset Amount specified in the Offset Notice. If the Securityholders' Representative timely delivers an Offset Objection, Parent and the Securityholders' Representative shall attempt in good faith to agree upon the rights of the respective parties with respect to the disputed Offset Amount and if the parties are not able to fully resolve all such differences within thirty (30) days from Parent's receipt of an Offset Objection, Parent or the Securityholders' Representative, as applicable, shall have the right to pursue such remedies or legal recourse as may be available to each party on the terms and subject to the provisions of this Agreement.

(g) Definitions. The following defined terms used in this Section 1.13 that are not defined elsewhere in this Agreement shall have the following meanings:

(i) "Bundle Product Component" means a product that satisfies all of the following conditions: (x) such product is not an Earn-out Product, (y) such product is sold separately and was individually approved by the

FDA or an equivalent regulatory body, and (z) the selling price of the Bundled Sale inclusive of such product is higher than the market price of the Earn-out Product included in such Bundled Sale when sold on a stand-alone basis.

(ii) "Cost of Goods" means the cost of goods (including overhead) for the subject products calculated using the same accounting methods, practices, principles, policies and procedures, with consistent classifications, judgments and valuation and estimation methodologies that were used in the preparation of the Company Balance Sheet (prepared in accordance with GAAP) as of the Balance Sheet Date.

(iii) "Current Suppliers" means, collectively, Hybrid Design Associates, Promex Industries, Inc., and FAST Semiconductor, Inc., and any of their respective Affiliates (and each, a "Current Supplier").

(iv) "Earn-out Product Parties" means, collectively, (A) Parent, (B) its Affiliates, and/or (C) its or their respective transferees or licensees of substantially all rights pertaining to an Earn-out Product, and each, an "Earn-out Product Party."

(v) "Earn-out Products" means (A) any Existing Product; or (B) any product that is a modification, improvement or derivative of any Existing Product or any other product of Parent or its Subsidiaries, in any case under this clause (B), which product utilizes or incorporates Company Intellectual Property Rights.

(vi) "Existing Products" means, collectively, the products set forth on Schedule 1.13(g).

(vii) "Net Sales" means the gross amounts invoiced for sales of Earn-out Products by any Earn-out Product Party to third parties less any of the following deductions related to the Earn-out Products and actually taken on such sales for: (a) normal and customary trade and quantity discounts actually given; (b) credits, rebates and chargebacks and allowances to the customer on account of purchase of such Earn-out Products, or on account of retroactive price reductions affecting such Earn-out Products; (c) amounts paid, granted or accrued on rejection or returns of such Earn-out Products; (d) packing, freight, shipping, postage, custom duties and insurance costs on shipments to the customer that are separately itemized; and (e) sales, value-added, and excise taxes, tariffs, duties and any other taxes and governmental charges related to the sale of such Earn-out Products to the customer, in each case, to the extent such deductions: (i) are applicable and in accordance with standard allocation procedures, (ii) have not already been deducted or excluded, and (iii) are incurred in the ordinary course of business in type and amount consistent with good industry practice. Net Sales shall be determined from the books and records of the applicable party in accordance with GAAP, applied on a consistent basis by Parent, and may include using accrual accounting where applicable. Notwithstanding the foregoing, Net Sales shall not include non-commercial sales, such as transactions among Earn-out Product Parties not intended for re-sale, or sales for pre-clinical or clinical trials or other testing. In the case of any transfer of any Earn-out Product between or among Earn-out Product Parties for resale, Net Sales shall be determined based on the subsequent sale of such Earn-out Product by the Earn-out Product Party to a third party. If an Earn-out Product is sold in a bundle with Bundle Product Components ("Bundled Sales"), Net Sales on the Bundled Sales shall be calculated by multiplying the Net Sales of that Bundled Sale (as determined in accordance with the first sentence of this Section 1.13(g)(vi)) by the fraction A/(A+B), where A is the average sale price of the Earn-out Product included in the Bundled Sale when sold separately and B is the average sale price of all Bundle Product Components included in the Bundled Sale when sold separately. If neither the Earn-out Product nor all of the Bundle Product Components in the Bundled Sale were sold separately during one or more of the immediately preceding twelve (12) months, then the proration fraction shall be determined in a consistent and equitable manner that reflects the relative contribution of the Earn-out Product to the amount received on such Bundled Sale as the parties shall in good faith negotiate and agree.

1.14 Escrow Funds.

(a) Escrow. On the Closing Date, Parent shall deposit or cause to be deposited with the Escrow Agent into an interest bearing escrow account (the "Escrow Account") established pursuant to the Escrow Agreement:

(i) the Indemnification Escrow Amount (such amount less any disbursements therefrom in accordance with the Escrow Agreement, the "Indemnification Escrow Fund") to be held for the purpose of securing the indemnification obligations of the Company Securityholders hereunder; and

(ii) the Post-Closing Adjustment Escrow Amount (such amount less any disbursements therefrom in accordance with the Escrow Agreement, the "Post-Closing Adjustment Escrow Fund") to be held for the purpose of securing the obligations of the Company Securityholders and Parent under Section 1.16.

(b) Escrow Account. The release of the Escrow Funds and the interest, earnings and income that accrue upon the Escrow Funds shall be governed by the Escrow Agreement. The amount of any Escrow Funds that is required to be released to the Company Stakeholders hereunder shall be referred to as an "Escrow Release Amount."

1.15 Expense Fund. On the Closing Date, Parent shall deposit the Expense Fund Distribution Amount in immediately available funds with the Securityholders' Representative, to be used (i) for paying directly or reimbursing the Securityholders' Representative for any expenses incurred by it arising from its obligations hereunder or under the Escrow Agreement or (ii) as otherwise directed by the Advisory Group. The Securityholders' Representative is not providing any investment supervision, recommendations or advice and shall have no responsibility or liability for any loss of principal of the Expense Fund Distribution Amount other than as a result of its gross negligence or willful misconduct. The Securityholders' Representative is not acting as a withholding agent or in any similar capacity in connection with the Expense Fund Distribution Amount and has no tax reporting or income distribution obligations. The Company Stakeholders will not receive any interest on the Expense Fund Distribution Amount and assign to the Securityholders' Representative any such interest. Subject to Advisory Group approval, the Securityholders' Representative may contribute funds to the Expense Fund Distribution Amount from any consideration otherwise distributable to the Company Stakeholders. The Expense Fund Distribution Amount shall be retained in whole or in part by or on behalf of the Company Stakeholders until such time as the Securityholders' Representative shall determine in its sole discretion, at which time the Securityholders' Representative shall promptly distribute the remaining Expense Fund Distribution Amount to the Paying Agent or the Surviving Corporation, as applicable, for distribution to the Company Stakeholders in accordance with the terms hereunder.

1.16 Working Capital Adjustment.

(a) Closing Adjustment. At least three (3) Business Days before the Closing, the Company shall prepare and deliver to Parent a statement setting forth its good faith estimate of the Closing Working Capital (the "**Estimated Closing Working Capital**"), which statement shall contain an estimated balance sheet of the Company as of the Closing Date (without giving effect to the transactions contemplated herein), a calculation of Estimated Closing Working Capital (the "**Estimated Closing Working Capital Statement**"), and a certificate of the chief executive officer or chief financial officer of the Company that the Estimated Closing Working Capital Statement was prepared in accordance with GAAP (as modified by the definitions of Current Assets and Current Liabilities as set forth herein), applied using the same accounting methods, practices, principles, policies and procedures, with consistent classifications, judgments and valuation and estimation methodologies that were used in the preparation of the Audited Financial Statements for the fiscal year ended December 31, 2017.

(b) Post-Closing Adjustment.

(i) Within 60 days after the Closing Date, Parent shall prepare and deliver to the Securityholders' Representative a statement setting forth its calculation of Closing Working Capital, which statement shall contain a balance sheet of the Company as of the Closing Date (without giving effect to the transactions contemplated herein), a calculation of Closing Working Capital (the "**Closing Working Capital Statement"**) and a certificate of the chief executive officer or chief financial officer of Parent that the Closing Working Capital Statement was prepared in accordance with GAAP (as modified by the definitions of Current Assets and Current Liabilities as set forth herein) applied using the same accounting methods, practices, principles, policies and procedures, with consistent classifications, judgments and valuation and estimation methodologies that were used in the preparation of the Audited Financial Statements for the fiscal year ended December 31, 2017.

(ii) The "**Post-Closing Adjustment"** shall be an amount equal to the Closing Working Capital *minus* the Estimated Closing Working Capital.

(c) Examination and Review.

(i) Examination. After receipt of the Closing Working Capital Statement, the Securityholders' Representative shall have thirty (30) days (the "**Review Period**") to review the Closing Working Capital Statement. During the Review Period, the Securityholders' Representative or its representatives shall have access to the books and records of the Surviving Corporation, the personnel of, and work papers prepared by, Parent and/or its accountants to the extent that they relate to the Closing Working Capital Statement and to such historical financial information (to the extent in Parent's possession) relating to the Closing Working Capital Statement as the Securityholders' Representative or its representatives may reasonably request for the purpose of reviewing the Closing Working Capital Statement and to prepare a Statement of Objections (defined below), *provided that* such access shall be in a manner that does not unreasonably interfere with the business operations of Parent or the Surviving Corporation.

(ii) Objection. On or prior to the last day of the Review Period, the Securityholders' Representative may object to the Closing Working Capital Statement by delivering to Parent a written statement setting forth its objections in reasonable detail, indicating each disputed item or amount and the basis for its disagreement therewith (the "**Statement of Objections**"). If the Securityholders' Representative fails to deliver the Statement of Objections before the expiration of the Review Period, the Closing Working Capital Statement and the Post-Closing Adjustment, as the case may be, reflected in the Closing Working Capital Statement shall be deemed to have been accepted by the Securityholders' Representative. If the Securityholders' Representative delivers the Statement of Objections before the expiration of the Review Period, Parent and the Securityholders' Representative shall negotiate in good faith to resolve such objections within thirty (30) days after the delivery of the Statement of Objections (the "**Resolution Period**"), and, if the same are so resolved within the Resolution Period, the Post-Closing Adjustment and the Closing Working Capital Statement with such changes as may be agreed in writing by Parent and the Securityholders' Representative, shall be final and binding.

(iii) Resolution of Disputes. If the Securityholders' Representative and Parent fail to reach an agreement with respect to all of the matters set forth in the Statement of Objections before expiration of the Resolution Period, then any amounts remaining in dispute ("**Disputed Amounts**" and any amounts not so disputed, the "**Undisputed Amounts**") shall be submitted for resolution to the office of Grant Thornton LLP or, if Grant Thornton LLP is unable to serve, Parent and the Securityholders' Representative shall appoint by mutual agreement the office of an impartial nationally recognized firm of independent certified public accountants (the "**Independent Accountant**") who, acting as experts and not arbitrators, shall resolve the Disputed Amounts only and make any adjustments to the Post-Closing Adjustment, as the case may be, and the Closing Working Capital Statement. The parties hereto agree that all adjustments shall be made without regard to materiality. The Independent Accountant shall only decide the specific items under dispute by the parties and their decision for each Disputed Amount must be within the range of values assigned to each such item in the Closing Working Capital Statement and the Statement of Objections, respectively.

(iv) Fees of the Independent Accountant. The fees and expenses of the Independent Accountant shall be paid by the Securityholders' Representative (on behalf of the Company Stakeholders), on the one hand, and by Parent, on the other hand, based upon the percentage that the amount contested but not awarded to the Securityholders' Representative or Parent, respectively, bears to the aggregate amount contested by the Securityholders' Representative and Parent.

(v) Determination by Independent Accountant. The Independent Accountant shall make a determination as soon as practicable within thirty (30) days (or such other time as the parties hereto shall agree in writing) after their engagement, and their resolution of the Disputed Amounts and their adjustments to the Closing Working Capital Statement and/or the Post-Closing Adjustment shall be conclusive and binding upon the parties hereto.

(d) Payment of Post-Closing Adjustment.

(i) If the Post-Closing Adjustment is a negative number, the Securityholders' Representative and Parent shall, within three (3) Business Days after the final determination of the Post-Closing Adjustment, jointly instruct the Escrow Agent to disburse (A) from the Post-Closing Adjustment Escrow Fund, and (B) to the extent the amount of the Post-Closing Adjustment exceeds the amount available in the Post-Closing Adjustment Escrow Fund, from the Indemnification Escrow Fund, by wire transfer of immediately available funds to Parent, the amount (paid as a positive number) of the Post-Closing Adjustment.

(ii) If the Post-Closing Adjustment is a positive number, Parent shall, within three (3) Business Days after the final determination of the Post-Closing Adjustment, deposit with the Paying Agent and the Company for distribution to the Company Stakeholders in accordance hereunder, the amount of the Post-Closing Adjustment (such amount of Post-Closing Adjustment, the "Excess Payment Amount").

(e) Adjustments for Tax Purposes. Any payments made pursuant to this Section 1.16 shall be treated as an adjustment to the Merger Consideration by the parties for Tax purposes, unless otherwise required by Law.

1.17 Consideration Spreadsheet.

(a) At least three (3) Business Days before the Closing and concurrently with the delivery of the Estimated Closing Working Capital Statement, the Company shall prepare and deliver to Parent a spreadsheet (the "**Consideration Spreadsheet**"), certified by the chief executive officer or chief financial officer of the Company, which shall set forth, as of the Closing Date and immediately prior to the Effective Time, the following:

(i) the name (and, to the extent reasonably available, the last known address and, if known, email address) of each Company Stakeholder and, for each Company Securityholder, (A) the number, class and series of Company Capital Stock, (B) the number of outstanding Company Options, and the associated exercise price, and/or (C) the number of outstanding Company Warrants, and the associated exercise price, in each case, as applicable to such Company Securityholder;

(ii) calculations of the Closing Merger Consideration, in reasonable detail;

(iii) calculations of the aggregate amount of all Closing Net Option Payments and all Closing Net Warrant Payments, in reasonable detail;

(iv) calculations of the aggregate amount of Change of Control Payments, in reasonable detail (with the understanding that Parent will inform the Company at least five (5) Business Days prior to the Closing as to which Employees that are entitled to severance under a written agreement between such Employee and the Company will be terminated as of the Closing, and such severance payment will constitute a Change of Control Payment);

(v) each Company Stakeholders' applicable portion of the Closing Merger Consideration;

(vi) each Company Stakeholders' applicable portion (on an estimated basis) of any Earn-out Payment, Escrow Release Amount, and Expense Fund Distribution Amount; and

(vii) the Closing Employer Tax Amount.

(b) The parties agree that Parent, Merger Sub, and the Paying Agent shall be entitled to rely on the Consideration Spreadsheet in making payments under Article I, and Parent, Merger Sub, and the Paying Agent shall not be responsible for the calculations or the determinations regarding such calculations in such Consideration Spreadsheet.

1.18 Taking of Further Action. If, at any time after the Effective Time, any further action is necessary or desirable to carry out the purposes of this Article I and to vest the Surviving Corporation with full right, title and possession to all Assets, rights, privileges, powers and franchises of the Company and Merger Sub, Parent and the Surviving Corporation are fully authorized in their respective names to take, and will take, all such lawful and necessary or desirable action, so long as such action is not inconsistent with this Agreement.

ARTICLE II
REPRESENTATIONS AND WARRANTIES OF THE COMPANY

The Company represents and warrants to Parent, except as disclosed in the disclosure schedule of even date herewith delivered by the Company to Parent (the "Disclosure Schedule"), as set forth in this Article II:

2.1 Organization, Standing and Power. The Company is a corporation duly incorporated, validly existing and in good standing under Delaware Law. The Company has the requisite corporate power and authority to own, lease and operate its Assets and to carry on its business as conducted prior to the Agreement Date (collectively, the "Current Company Business"). The Company is duly qualified to do business, and is in good standing in each jurisdiction where the operation of the Current Company Business by the Company requires such qualification, except where the failure to be so qualified or in good standing would not, individually or in the aggregate, reasonably be expected to result in a Company Material Adverse Effect or prevent, delay or impair the ability of the Company to consummate the transactions contemplated by this Agreement. The Company has delivered, or made available, to Parent or its advisors true, complete, and correct copies of the Company Organizational Documents. The Company is not in violation of any of the provisions of the Company Organizational Documents. Section 2.1 of the Disclosure Schedule lists the Company's jurisdiction of formation and the other jurisdictions in which it is qualified to do business, and the current directors and officers (or equivalent positions) of the Company.

2.2 Authority; Enforceability.

(a) The Company has full corporate power and authority to enter into this Agreement, perform its obligations under this Agreement and the Ancillary Documents to which it is a party, and, subject to the receipt of the Required Stockholder Vote, to consummate the Merger and the transactions contemplated by this Agreement and the Ancillary Documents

to which it is a party. The affirmative vote or consent of (i) the Company Stockholders holding at least a majority of the issued and outstanding shares of Company Common Stock and Company Preferred Stock (on an as-converted to Company Common Stock basis), voting together as a single class, and (ii) the Company Stockholders holding at least forty-five percent (45%) of the issued and outstanding shares of Company Preferred Stock, voting together as a single class on as converted to Company Common Stock basis is the only vote of the Company Stockholders necessary under Delaware Law and the Company Organizational Documents to adopt this Agreement and approve the Merger (the "Required Stockholder Vote"). The Required Stockholder Vote is the only vote or consent necessary for the holders of the Company Capital Stock to adopt this Agreement, approve the Ancillary Documents to which the Company is a party, approve the Merger, and consummate the other transactions contemplated hereby. The execution, delivery, and performance by the Company of this Agreement and each Ancillary Document to which it is a party and, subject to receipt of the Required Stockholder Vote, the consummation of the Merger and the transactions contemplated hereby and thereby have been authorized by all requisite corporate or equivalent action on the part of the Company and no other corporate proceedings of the Company are necessary to authorize this Agreement or to consummate the Merger and the other transactions contemplated hereby or thereby (other than the filing of the Certificate of Merger and such other documents as required by Delaware Law).

(b) The board of directors of the Company has unanimously (and has not subsequently rescinded or modified in any way) (i) declared that the Merger and the other transactions contemplated by this Agreement are advisable, fair to and in the best interests of the Company and its stockholders, (ii) approved this Agreement in accordance with the provisions of Delaware Law, (iii) directed that this Agreement and the Merger be submitted to the stockholders of the Company for their adoption and approval by written consent, and (iv) resolved to recommend that the stockholders of the Company vote in favor of the adoption of this Agreement and the approval of the Merger.

(c) This Agreement has been duly executed and delivered by the Company and, assuming that this Agreement constitutes a valid and binding obligation of the other parties hereto, this Agreement constitutes a valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, moratorium or other similar applicable Laws affecting or relating to creditors' rights generally and general principles of equity (collectively, the "Enforceability Limitations").

2.3 Conflicts. The execution, delivery and performance of this Agreement or any Ancillary Documents to which the Company is a party by the Company does not constitute, and the consummation by the Company of the transactions contemplated hereby or thereby, including the Merger, and compliance with or fulfillment of the terms, conditions and provisions hereof or thereof by the Company will not result in, a termination or cancellation or a loss of rights under, or breach or violation of the terms, conditions, or provisions of, or constitute a default or an event creating rights of acceleration, modification, withdrawal, suspension, termination or cancellation or a loss of rights under, or result in the creation or imposition of any Lien upon or otherwise encumber any of the Company Capital Stock or the Assets of the Company under (with or without notice or lapse of time, or both), (a) any provision of the Company Organizational Documents, (b) any Material Contract or (c) any Law applicable to the Company or any of its Assets, except in the case of clauses (b) and (c) where such termination, breach, violation or default would not reasonably be expected to be material to the Company, result in a material liability to the Company, or the Current Company Business, or otherwise have a Company Material Adverse Effect, or would prevent, materially impair, or materially delay the consummation of any of the transactions contemplated hereby. No consent, approval, order or authorization of, or registration, declaration or filing with, or notice to, any Governmental Entity is required to be obtained, made, or given by the Company in connection with the execution, delivery, and performance of this Agreement, the Ancillary Documents, and the consummation of the transactions contemplated hereby and thereby, including consummation of the Merger, except for: (x) the filing of the Certificate of Merger as provided in Section 1.2, (y) such filings as may be required under the Hart Scott Rodino Antitrust Improvements Act of 1976, as amended (the "HSR Act"), and any foreign antitrust applicable Laws, and (z) such consent, approval, order or authorization of, or registration, declaration or filing that would not reasonably be expected to be material to the Company, result in a material liability to the Company, or the Current Company Business, or otherwise have a material adverse impact on the Current Company Business, the Company, or the Assets, or would prevent, materially impair, or materially delay the consummation of any of the transactions contemplated hereby. The consents, approvals, orders, authorizations, registrations, declarations and filings set forth in (x) and (y) are referred to herein as the "Necessary Consents."

2.4 Financial Statements.

(a) The Company has delivered to Parent or its advisors (i) the audited balance sheet, statement of operations, and statement of cash flows of the Company as of and for the fiscal years ended December 31, 2017, December 31, 2016, and December 31, 2015 (collectively, the "Audited Financial Statements") and (ii) the unaudited balance sheet, statement of operations, and statement of cash flows of the Company as of August 31, 2018 (the "Company Balance Sheet" and such date, the "Company Balance Sheet Date") (collectively, with the Audited Financial Statements, the "Company Financial Statements"). The Company Financial Statements have been prepared in accordance with GAAP (except as disclosed in the notes thereto and

except that the unaudited Company Financial Statements do not contain footnotes and are subject to normal year-end audit adjustments that are not material individually or in the aggregate) applied on a consistent basis throughout the periods covered. The Company Financial Statements fairly present, in all material respects, the financial condition, assets, liabilities, and cash flows of the Company as of the dates indicated therein and consolidated results of operations of the Company for the periods indicated therein, subject to normal year-end audit adjustments and the absence of footnotes in the case of the unaudited Company Financial Statements. The Company Financial Statements have been prepared from, and are in accordance with and accurately reflect, in all material respects, the books and records of the Company consistently maintained throughout the periods indicated.

(b) The Company maintains a system of internal accounting controls sufficient in all material respects to provide reasonable assurance that (i) all transactions are executed in accordance with management's general or specific authorizations, (ii) all transactions are recorded as necessary to permit the preparation of financial statements in conformity with GAAP and to maintain proper accountability for assets, (iii) access to assets is permitted only in accordance with management's general and specific authorization and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

2.5 Capitalization.

(a) The authorized capital stock of the Company consists of (i) 34,397,956 shares of Company Common Stock, of which 2,530,007 are issued and outstanding as of the Agreement Date, and (ii) 27,217,209 shares of Company Preferred Stock, of which (A) 9,114,827 shares are designated as Series A Preferred Stock, all of which are issued and outstanding as of the Agreement Date and (B) 18,102,382 shares are designated as Series B Preferred Stock, of which 15,762,022 are issued and outstanding as of the Agreement Date. All outstanding shares of Company Common Stock and Company Preferred Stock (x) are duly authorized, validly issued, fully paid and non-assessable, (y) are free of any Liens created by the Company, except Permitted Liens, and (z) were not issued in violation of and are not subject to any preemptive rights or rights of first refusal created by statute, the Company Organizational Documents or any Contract to which the Company is a party or by which it is bound. All issued and outstanding shares of Company Capital Stock, all Company Options, and all Company Warrants were issued or granted in compliance with applicable Laws. There are no declared and unpaid dividends on any share of Company Capital Stock. All distributions, dividends, repurchases and redemption of Company Capital Stock (or other equity interests) were undertaken in compliance with the applicable Company Organizational Documents then in effect, any agreement to which the Company then was a party and in compliance with all applicable Laws.

(b) As of the Agreement Date, there were 5,456,488 shares of Company Common Stock reserved for issuance under the Company Incentive Plan, of which 3,500,111 shares of Company Common Stock were subject to outstanding Company Options, and 84,576 shares of Company Common Stock were reserved for future option grants.

(c) Except as set forth in Section 2.5, as of the Agreement Date, there are no options, warrants, calls, rights, commitments or agreements that are outstanding to which the Company is a party or by which it is bound, obligating the Company to issue, deliver, sell, repurchase or redeem, or cause to be issued, delivered, sold, repurchased or redeemed, any shares of Company Capital Stock or obligating the Company to grant, extend, accelerate the vesting of, change the price of, or otherwise amend or enter into any option, warrant, call, right, commitment or agreement regarding shares of Company Capital Stock. There are no other contracts, commitments or agreements relating to the voting (including voting trusts or proxies), registration under the Securities Act of 1933, as amended (the "Securities Act"), or purchase, sale, or transfer of shares of Company Capital Stock (i) between or among the Company and any Company Stockholders, and (ii) to the Company's knowledge, between or among any Company Stockholders. There are no outstanding or authorized stock appreciation, dividend equivalent, phantom stock, profit participation or other similar rights with respect to the Company or any of its securities. No holder of Indebtedness of the Company has any right to convert or exchange such Indebtedness for any Company Capital Stock (or other Company equity security) and no holder of Indebtedness of the Company has any rights to vote for the election of directors, managers, similar governing body of the Company or to vote on any other matter.

(d) Section 2.5(d) of the Disclosure Schedule sets forth, as of the Agreement Date (and which shall be updated, if necessary, as of the Effective Time pursuant to Section 6.2(c)), a complete and accurate list of all issued and outstanding shares of Company Capital Stock, identifying the name of the registered holder thereof, the class and/or series of shares held, the number of shares of each such class or series held and the applicable conversion rate for each series of Company Preferred Stock.

(e) Section 2.5(e) of the Disclosure Schedule sets forth for each outstanding Company Option as of the Agreement Date (and which shall be updated, if necessary, as of the Effective Time pursuant to Section 6.2(c)), the name of the holder of such Company Option, an indication of whether such holder is an employee of or consultant to the Company, the date of grant of such Company Option, the number or amount of securities as to which such Company Option is exercisable, and the exercise price of such Company Option.

(f) Section 2.5(f) of the Disclosure Schedule sets forth, as of the Agreement Date (and which shall be updated, if necessary, as of the Effective Time pursuant to Section 6.2(c)), a complete and accurate list of the number of shares exercisable under each outstanding Company Warrant, and the acquisition date of each such Company Warrant and the name of the holder thereof.

(g) Section 2.5(f) of the Disclosure Schedule sets forth, as of the Agreement Date (and which shall be updated, if necessary, as of the Effective Time pursuant to Section 6.2(c)), a complete and accurate list of all recipients of Change of Control Payments and the amount of consideration payable to such recipients in respect of such Change of Control Payments (including the information reasonably required to make the allocation of payments determinations required by Section 1.9(b)).

2.6 Subsidiaries. The Company has no Subsidiaries and for the prior three years has not had any Subsidiaries.

2.7 Absence of Certain Changes.

(a) Since the Company Balance Sheet Date through the Agreement Date, no Company Material Adverse Effect has occurred and there has not been any event, occurrence or development that would reasonably be expected to have, individually or in the aggregate, a Company Material Adverse Effect.

(b) Since the Company Balance Sheet Date through the Agreement Date, there has not been:

(i) any amendment or any changes to the Company Organizational Documents;

(ii) any merger or consolidation with any other Person or acquisition by merging or consolidating with, or by purchasing a substantial portion of the stock or assets of, any business or any corporation, partnership, association or other business organization or division thereof;

(iii) any (A) split, combination, reclassification, purchase, redemption or other acquisition of any shares of Company Capital Stock, (B) entry into any agreement with respect to voting of any of the Company Capital Stock, or (C) declaration, setting aside or payment of any non-cash dividend or other non-cash distribution in respect of the Company Capital Stock;

(iv) any purchase, redemption or other acquisition of, except in connection with the Company Incentive Plan, any shares of Company Capital Stock or any securities convertible or exchangeable or exercisable for any shares of Company Capital Stock;

(v) any transfer, lease, license, guarantee, sale, mortgage, pledge, disposition or encumbrance of any material (either individual or in the aggregate) Asset, except for (A) the incurrence of Permitted Liens and (B) the disposition of inventory in the ordinary course of business consistent with past practice;

(vi) any creation, incurrence or assumption, or agreement to create, incur or assume, any Indebtedness or issue any debt securities or warrants or other rights to acquire debt securities of the Company or assume, guarantee or endorse, as an accommodation or otherwise, the obligations of any other Person for Indebtedness or capital obligations, in the case of any of the foregoing;

(vii) any issuance, delivery, sale, pledge, disposition or other encumbrance of any shares of, or securities convertible into or exchangeable or exercisable for, or options, warrants, calls, commitments or rights of any kind to acquire, any shares of its capital stock of any class;

(viii) any purchase or other acquisition of any assets or agreement to make any capital expenditures, in each case that are in excess of $50,000 in any calendar month;

(ix) any material change in accounting methods, policies or procedures, except as required by GAAP or by applicable Law or a Governmental Entity;

(x) any revaluation any of the Company's material Assets, except as required by GAAP;

(xi) any entry into, modification, amendment or termination of, or waiver under (A) any Material Contract; or (B) any IP License pursuant to which the Company, or any other party thereto has, or will have, material continuing obligations, rights or interests, in each case outside the ordinary course of business;

(xii) any loan, advance, capital contribution to, or investment in, any Person other than loans, advances or capital contributions to, or investments in the ordinary course of business consistent with past practice and routine business expense advances to employees of the Company;

(xiii) any (A) grant, extension, amendment (except as required in the diligent prosecution of the Company Intellectual Property Rights), waiver or modification of the Company's rights in or to any Company Intellectual Property Rights or material Licensed Intellectual Property Rights, (B) failure to diligently prosecute any material Company Intellectual Property Rights in the U.S. or in any non-U.S. jurisdiction material to the Company's business, or (C) failure to exercise a right of renewal or extension under or with respect to any material Company Intellectual Property Rights or material Licensed Intellectual Property Rights;

(xiv) any (A) adoption, establishment, termination or material amendment to any material Company Employee Plan, collective bargaining agreement, severance agreement or similar Contract, or any other material employee benefit, plan, program or arrangements sponsored or maintained by the Company or any of its Affiliates (other than offer letters and letter agreements entered into, in the ordinary course of business and consistent with past practice, with newly hired employees who are terminable "at will" and consulting or services agreement that can be terminated with 30 days' or less notice and without liability to the Company), (B) institution of any material increase in any compensation or benefits provided pursuant to any Company Employee Plan other than in the ordinary course of business and consistent with past practice, (C) payment of any material special bonus or special remuneration (cash, equity or otherwise) to any Employee (including rights to severance or indemnification), except pursuant to agreements outstanding on the Agreement Date and except for Change of Control Payments which are deducted from the Closing Merger Consideration as a Transaction Expense (in respect of such Change of Control Payments that are payable with respect to the Closing Merger Consideration) and except for any bonuses accrued on the Company Financial Statements, and (D) any increase in the fees or bonus opportunity of any consultant or contractor of the Company, except in the ordinary course of business consistent with past practice or as required by any Contract or Law;

(xv) any grant of any material severance or termination pay (cash, equity or otherwise) to any Employee, except pursuant to written agreements outstanding, or policies existing, as of the Company Balance Sheet Date, or adoption of any new severance plan, or amendment or modification or alteration in any material respect of any severance plan, agreement or arrangement existing on the Agreement Date;

(xvi) change or rescission of any Tax election, settlement or compromise of any action or liability relating to Taxes, entry into any Tax allocation, sharing, indemnity Contract, other than pursuant to customary commercial agreements entered into in the ordinary course of business, the primary purposes of which is unrelated to Tax (each, a "Commercial Contract"), surrender or compromise of any right to claim a Tax refund, change to any Tax accounting method, amendment to any Tax Return, entry into any closing agreement relating to any Tax, or consent to or request of any extension or waiver of the statute of limitations period applicable to payment of any Taxes, initiation of any voluntary disclosure, Tax amnesty filing or other similar action relating to Taxes, or the failure to pay any taxes as they became due and payable, in each case, that could materially increase the Taxes of Parent or the Surviving Corporation after the Closing Date;

(xvii) any cancellation, compromise, release or waiver of any pending or threatened action, suit or proceeding or other claims or rights with a value exceeding $100,000 per claim or $200,000 in the aggregate, or otherwise outside the ordinary course of business;

(xviii) any material change to the Company's policies or practices regarding the extension or customer credit, sales of the Company's products, collection of accounts receivable or payment of accounts payable;

(xix) any material change in the Current Company Business; or

(xx) any authorization or entry into any Contract or agreement to do any of the foregoing.

2.8 Absence of Undisclosed Liabilities. Except as disclosed in the Company Financial Statements, since the Company Balance Sheet Date, the Company has no liabilities of a nature required to be disclosed on a consolidated balance sheet or in the related notes to the consolidated financial statements prepared in accordance with GAAP which are, individually or in the aggregate, material to the Company, except for (i) liabilities adequately reflected or reserved against on the Company Balance Sheet, (ii) liabilities which have arisen in the ordinary course of business since the Company Balance Sheet Date and which are not, individually or in the aggregate, material in amount, or (iii) liabilities incurred in connection with this Agreement or the transactions contemplated hereby and reflected in the Closing Transaction Expenses Certificate.

2.9 Litigation. There are no Actions pending or, to the knowledge of the Company, threatened against the Company or affecting any of its properties or the Assets before any Governmental Entity. Neither the Company nor any of the Company Intellectual Property Rights or Assets is subject to any order, judgment, decree, injunction or award of any Governmental Entity. No event has occurred or circumstances exist that may constitute or result in (with or without notice or lapse of time) a violation of any such order, judgment, decree, injunction or award referenced in the immediately preceding sentence.

2.10 Intellectual Property.

(a) Section 2.10(a) of the Disclosure Schedule sets forth a true and complete list of all (i) Company IP Registrations and applications with respect to Company IP Registrations, specifying as to each, as applicable: the title, mark, or design; the record owner and inventor(s), if any; the jurisdiction by or in which it has been issued, registered, or filed; the patent, registration, or application serial number; the issue, registration, or filing date; and the current status patented and registered Company Intellectual Property Rights, (ii) trade or corporate names used by the Company, whether or not represented by a Company IP Registration, (iii) material unregistered trademarks and service marks owned or used by the Company, (iv) domain names owned or used by the Company, and (v) patented and patent pending Licensed Intellectual Property Rights, to the extent the license to the Company is exclusive (or exclusive other than with respect to the owner of such Intellectual Property Rights).

(b) All necessary registration, maintenance and renewal fees for each item of patented and registered Company Intellectual Property Rights have been paid and all necessary documents, recordations and certificates in connection with such Company Intellectual Property Rights have been filed with the relevant Governmental Entity for the purposes of maintaining or perfecting such Company Intellectual Property Rights. All registrations for patented and registered Company Intellectual Property Rights are in good standing and subsisting and valid and enforceable. Except as set forth in Section 2.10(b) of the Disclosure Schedule, there are no actions that must be taken or payments that must be made by the Company within one hundred and eighty (180) days following the Agreement Date that, if not taken, will adversely affect any patented and registered Company Intellectual Property Rights.

(c) Except with respect to any Off-The-Shelf Software or as set forth on Section 2.10(c) of the Disclosure Schedule, to the knowledge of the Company, the Company owns all right, title and interest to, or has the right to use, free and clear of all Liens (except Permitted Liens and restrictions contained in any applicable license), all Company Intellectual Property Rights and Licensed Intellectual Property Rights used by the Company in the conduct of the Current Company Business.

(d) Section 2.10(d) of the Disclosure Schedule sets forth all of the agreements pursuant to which the Company has been granted rights by third parties with respect to Licensed Intellectual Property Rights used by the Company in the conduct of the Current Company Business (each, an "IP License"). Each IP License is in full force and effect and is binding and enforceable against the Company and, to the knowledge of the Company, any other party to each such IP License. Neither the Company nor, to the knowledge of the Company, any other party thereto is in material breach or material default of any IP License. To the knowledge of the Company, no event has occurred that with notice or lapse of time would constitute a material breach or material default under any IP License by the Company or any other party to any IP License, or would permit the modification or premature termination of any IP License by any other party thereto. The Company has not received any written notice from any third party asserting a claim, or threatening to make a claim, which would materially and adversely affect the rights of the Company under any IP License. The Company has delivered to Parent, or made available to Parent or its advisors, a complete and accurate copy of each IP License and all amendments or modifications thereto that exist as of the Agreement Date.

(e) The Company has not infringed upon or otherwise violated, or is infringing upon or otherwise violating, in any material respect, the Intellectual Property Rights of any third party. The Company has not received any written notice from any third party alleging infringement or violation of any Intellectual Property Right. None of the Company Intellectual Property Rights derives from, misappropriates, misuses, dilutes, or otherwise violates any Intellectual Property Rights of any Person, nor has the Company received any written notice from any third party challenging or threatening to challenge the right, title or interest of the Company in, to or under the Company Intellectual Property Rights or Licensed Intellectual Property Rights or asserting or seeking any opposition, interference, invalidity, termination, abandonment, post grant review (including inter partes review), or other infirmity of any Company Intellectual Property Rights.

(f) Except as set forth in Section 2.10(f) of the Disclosure Schedule, the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby will not result in (i) the Company granting to any third party any rights or licenses to any Intellectual Property Rights, (ii) any IP License being subject to any non-compete, non-exclusivity, or other restriction on its use or operation, to which it is not subject prior to the Closing, or (iii) the imposition of any Lien on Company Intellectual Property Rights. Following the execution and delivery of this Agreement and the consummation of the transactions contemplated hereby, Parent will be permitted to exercise all of the Company's rights under all IP Licenses, to the same extent the Company would have been able to had such transactions not occurred and without being required to pay any

additional amounts or consideration other than fees, royalties or payments which the Company would otherwise be required to pay had such transactions not occurred.

(g) The Company Intellectual Property Rights and Licensed Intellectual Property Rights collectively comprise all Intellectual Property Rights necessary or material to the conduct of Current Company Business. The Company has no knowledge that any Person is infringing upon, misappropriating, misusing, diluting, or otherwise violating any Company Intellectual Property Right or Licensed Intellectual Property Right, to the extent the license to the Company is exclusive (or exclusive other than with respect to the owner of such Intellectual Property Rights).

(h) The Company has taken reasonable steps in accordance with industry standards to protect the Company's Trade Secrets and other confidential information, including by having officers, employees and consultants of the Company execute agreements providing for the protection of proprietary information of the Company. All officers, employees and consultants of the Company who are or have been involved in the conception, creation, reduction to practice, or development of Company Intellectual Property Rights have executed and delivered to the Company an agreement providing for the assignment by such persons to the Company of any Intellectual Property Rights made in the course of such persons' employment or engagement by the Company. No officer, employee or consultant of the Company is in material violation of any term of any such proprietary information and assignment agreement between such person and the Company.

(i) Except as set forth in Section 2.10(f) of the Disclosure Schedule, the Company has not granted any license, sublicense or similar right with respect to any Company Intellectual Property Right or Licensed Intellectual Property Right, to any third party, except for licenses granted in the ordinary course of business in connection with the sale of a Company product.

2.11 Material Contracts.

(a) Section 2.11(a) of the Disclosure Schedule lists each of the following Contracts of the Company in effect as of the Agreement Date (such Contracts, together with all Contracts concerning the occupancy, management or operation of any Leased Real Property (including without limitation, brokerage contracts) listed or otherwise disclosed in Section 2.13(a) of the Disclosure Schedule and all IP Licenses set forth in Section 2.10(d) of the Disclosure Schedule, being "Material Contracts"):

(i) each Contract to which the Company is a party (A) that involved or involves minimum aggregate consideration of more than $20,000 in any single calendar year (other than any Leases), or (B) under which the Company has paid or received in excess of $30,000 during the year ended December 31, 2017 or the portion of 2018 up through the Agreement Date;

(ii) each Contract, other than a Company Employee Plan, continuing over a period of more than one year from the date thereof that cannot be cancelled by the Company without penalty or further payment without more than thirty (30) days' notice;

(iii) each Contract for capital expenditures involving payment of more than $20,000 individually, or $50,000 in the aggregate;

(iv) each Contract between the Company and any other party concerning a partnership, joint venture or similar arrangement by the Company;

(v) each Contract evidencing indebtedness for borrowed money of the Company, including any loan agreements, promissory notes, security agreements, mortgages, indentures, bonds or any guaranties of any such indebtedness or any agreement that creates a Lien (other than a Permitted Lien) on any Asset;

(vi) each broker, distributor, dealer, manufacturer, franchise, agency, sales promotion, marketing and advertising Contract to which the Company is a party;

(vii) each Contract between the Company and any Governmental Entity;

(viii) each non-competition Contract or other Contract to which the Company is a party that (A) limits or restricts or purports to limit or restrict the ability of the Company (or, after giving effect to the Merger, Parent or its Subsidiaries) to compete in any line of business or with any Person or in any geographic area or during any period of time, (B) establishes an exclusive distribution, sale or purchase obligation with respect to any of the Company's products or services or any geographic location, (C) grants any "most favored nations" or similar rights, (D) requires the Company to purchase its total

requirement of any product, raw material, or service from a third party or that contains a "take or pay" provision, or (E) grants an option, right of first refusal or right of first offer or similar right to a third party;

(ix) each collective bargaining agreement, employment agreement and Contract with an independent contractor or consultant (or similar arrangements) to which the Company is a party (except only standard form(s) are listed for contracts that provide for employment or consulting services that are terminable "at will" and that are without severance or change of control pay or benefits and that are without material deviations from such form);

(x) each Contract, other than a Company Employee Plan, between or among the Company, on the one hand, and any director or officer of the Company, on the other hand;

(xi) each Contract related to the acquisition or disposition of any business or the equity of any other Person or any real property (whether by merger, sale of stock, sale of assets or otherwise);

(xii) each Contract that provides for the indemnification by the Company of any Person or the assumption of any Tax (other than pursuant to Commercial Contracts), environmental or other liability of any Person;

(xiii) each power of attorney executed on behalf of the Company that is currently effective and outstanding; and

(xiv) any proposed arrangement of a type that, if entered into, would be a Contract described in any of (i) through (xiv) above.

(b) With respect to each Material Contract, except as set forth in Section 2.11(b) of the Disclosure Schedule: (i) such Material Contract is in full force and effect and is valid, binding and enforceable against the Company and, to the Company's knowledge, any other party to such Material Contract, subject to the Enforceability Limitations; and (ii) (A) neither the Company nor, to the Company's knowledge, any other party to a Material Contract, is in breach, in any material respect, or default of such Material Contract, and (B) to the Company's knowledge, no event has occurred that with notice or lapse of time would constitute a breach, in any material respect, or default thereunder by the Company or any other party to such Material Contract, or would permit the modification, acceleration or premature termination thereof or would cause or permit other changes of any right or obligation or the loss of any benefit under such Material Contract. The Company has not received any written or oral notice of any intention by a counterparty to a Material Contract to terminate or not renew such Material Contract. The Company has delivered to Parent, or made available to Parent or its advisors, a complete and accurate copy of each such Material Contract and all amendments or modifications thereto that exist as of the Agreement Date.

2.12 Title to Tangible Assets; Condition and Sufficiency of Assets.

(a) The Company has (i) good and valid title to all of the owned tangible Assets (except for tangible Assets sold or otherwise disposed of in the ordinary course of business), and (ii) with respect to leased tangible Assets, holds valid leasehold interests therein, in each case free and clear of all Liens, except Permitted Liens.

(b) The buildings, plants, structures, furniture, fixtures, machinery, equipment, vehicles and other items of tangible personal property of the Company are structurally sound, are in good operating condition and repair, and are adequate for the uses to which they are being put, and none of such buildings, plants, structures, furniture, fixtures, machinery, equipment, vehicles and other items of tangible personal property is in need of maintenance or repairs, except for ordinary, routine maintenance and repairs that are not material in nature or cost. The buildings, plants, structures, furniture, fixtures, machinery, equipment, vehicles and other items of tangible personal property currently owned or leased by the Company, together with all other properties and assets of the Company, are sufficient for the continued conduct of the Current Company Business immediately after the Closing in substantially the same manner as conducted immediately prior to the Closing and constitute all of the buildings, plants, structures, furniture, fixtures, machinery, equipment, vehicles and other items of tangible personal property necessary to conduct the Current Company Business.

2.13 Real Estate.

(a) The Company does not own any real property. Section 2.13(a) of the Disclosure Schedule sets forth a list of all real property (such property, the "Leased Real Property") leased or otherwise occupied by the Company (each a "Lease" and collectively, "Leases") and a brief description of each lease of similar agreement (showing the locations of the real property covered by such Lease or other agreement). With respect to each Lease, (i) such Lease is in full force and effect and is binding and enforceable against the Company and, to the Company's knowledge, against the applicable lessor, subject to the Enforceability

Limitations; (ii) the Company has a valid leasehold in all Leased Real Property; and (iii) neither the Company nor, to the Company's knowledge, any other party to such Lease, is in material breach or default under such Lease, and no event has occurred or circumstances exists that, with the delivery of notice, passage of time or both, would constitute such a material breach or default or permit the termination or modification of, or acceleration of rent under, such Lease. True and correct copies of all such Leases or other Contracts affecting the Leased Real Property, as amended or modified through the Agreement Date, have been delivered to Parent or its advisors (or have been made available to Parent or its advisors).

(b) The Company is not a sublessor or grantor under any sublease or other instrument granting to any other Person any right to the possession, lease, occupancy or enjoyment of any Leased Real Property, and to the knowledge of the Company, no Person other than the Company has any oral or written right to acquire, lease, or otherwise occupy any portion of the Leased Real Property. The use and operation of the Leased Real Property in the conduct of the Company's business do not violate in any material respect any Law, covenant, condition, restriction, easement, license, permit or agreement. No material improvements constituting a part of the Leased Real Property encroach on real property owned or leased by a Person other than the Company. To the Company's knowledge, there are no Actions pending nor threatened against or affecting the Leased Real Property or any portion thereof or interest therein in the nature or in lieu of condemnation or eminent domain proceedings.

(c) The Leased Real Property comprises all of the real property used by the Company in the Current Company Business, and the Company is not a party to any agreement or option to purchase any real property or interest therein.

2.14 Environmental Matters. Except as set forth in Section 2.14 of the Disclosure Schedule:

(a) The Company is and, since December 31, 2012, has been, in compliance, in all material respects, with all applicable Environmental Laws and the Company owns, holds or possesses all Environmental Permits which are necessary to conduct the Current Company Business and all such Environmental Permits are valid, subsisting and in full force and effect, in each case, except as would not reasonably be expected to adversely affect the Current Company Business in any material respect.

(b) The Company is not subject to any judicial or administrative proceeding, court order, or settlement alleging or addressing a violation of or liability or other obligation under any Environmental Law.

(c) Since December 31, 2012, the Company has not received any written or, to the Company's knowledge, oral notice or claim alleging that it is or may be liable to any Person, including any Governmental Entity, as a result of the Release of a Hazardous Material or violation of Environmental Law or relating to the off-site disposal of wastes generated by the operation of the Current Company Business, and to the Company's knowledge, no such notices or claims are threatened with respect to the Company, the Current Company Business, or any Leased Real Property.

(d) Since December 31, 2012, the Company has not treated, stored, disposed of, arranged for or permitted the disposal of, transported, handled, generated, manufactured, distributed, exposed any Person to or Released any Hazardous Materials, or owned or operated any property or facility, in a manner that has given rise to or would reasonably be expected to give rise to, liability or other obligations, in any material respect, under any Environmental Law.

(e) To the Company's knowledge, no Hazardous Materials, contamination, landfill, surface impoundment, disposal area, underground storage tank, groundwater monitoring well, drinking water well or production water well is present at the Leased Real Property.

(f) The Company has provided Parent with accurate and complete copies of (i) all material environmental reports, investigations and audits possessed or initiated by or on behalf of the Company or obtained from any third Person since December 31, 2012 and relating to the Leased Real Property or other properties and facilities currently owned, leased, operated or controlled by the Company, and (ii) all material written correspondence by and between the Company, on the one hand, and any Governmental Entity or any third Person, on the other hand during such time, relating to the Company's compliance with, or liability or other obligation under, any Environmental Law.

2.15 Taxes.

(a) All income and other material Tax Returns relating to the Company: (i) have been timely filed on or before the applicable due date (taking into account any applicable extensions of such due date) and (ii) are true and complete in all material respects. All Taxes of the Company that have become due and payable have been timely paid whether or not reflected on such Tax Returns.

(b) All Taxes that the Company has been required to collect or withhold with respect to its employees have been duly collected or withheld and, to the extent required by applicable Law when due, have been duly and timely paid to the proper Governmental Entity.

(a) No audit, examination or other administrative or court proceeding for or relating to any liability in respect of Taxes by any Governmental Entity is presently being asserted against the Company and the Company has not been notified in writing by any Governmental Entity that any such audit, examination or other administrative or court proceeding in respect of Taxes is contemplated or pending. No waiver or agreement by or with respect to the Company is in force for the extension of time for the payment, collection or assessment of any Taxes. No claim has been made in writing to the Company by any Governmental Entity in a jurisdiction where the Company does not file Tax Returns that the Company is required to file Tax Returns in that jurisdiction. Each deficiency resulting from any completed audit or examination relating to Taxes by any Governmental Entity has been timely paid or is being contested in good faith.

(b) The Company Financial Statements contain adequate accruals in accordance with GAAP for the unpaid Taxes of the Company through the date of such Company Financial Statements. Since the Company Balance Sheet Date, the Company has not incurred any liability for Taxes outside of the ordinary course of business. The amount of the Company's Liability for unpaid Taxes for all periods beginning after the Company Balance Sheet Date and ending prior to the Closing Date shall not, in the aggregate, exceed the amount of accruals for Taxes (excluding reserves for deferred Taxes) as adjusted for the passage of time in accordance with the past custom and practice of the Company (and which accruals shall not exceed comparable amounts incurred in the corresponding periods in prior years).

(c) There are no Liens for Taxes on any Asset of the Company other than Permitted Liens.

(d) The Company has not agreed, and will not be required, to make any adjustment for any period after the Agreement Date pursuant to Section 481(a) of the Code by reason of any change in any accounting method or use of an improper accounting method prior to the Closing Date. The Company will not be required to include any item of income in, or exclude any item or deduction from, taxable income for a taxable period or portion thereof ending after the Closing Date as a result of: (i) an installment sale or open transaction occurring on or prior to the Closing Date, (ii) a prepaid amount received or other taxable income economically realized on or before the Closing Date, (iii) any closing agreement under Section 7121 of the Code, or similar provision of state, local or foreign law entered into on or prior to the Closing Date, or (iv) any election under Section 108(i) of the Code made on or prior to the Closing Date.

(e) The Company is not party to any written agreement with any third party relating to allocating or sharing the payment of, or liability for, Taxes (other than pursuant to a Commercial Contract). The Company does not have any liability for the Taxes of any third party under Treasury Regulation § 1.1502-6 (or any similar provision of state, local or foreign applicable Law), as a transferee or successor, by Contract or operation of Law.

(f) The Company has not been a member of an affiliated group of corporations within the meaning of Section 1504 of the Code or of any group that has filed a combined, consolidated or unitary return under state, local or foreign applicable Law, other than a group the common parent of which is the Company.

(g) The Company has not participated in a "listed transaction" within the meaning of Treasury Regulation Section 1.6011-4(b)(2).

(h) The Company has not constituted either a "distributing corporation" or a "controlled corporation" in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code in the two year period ending on the Closing Date.

(i) The Company is not, and has not been, a "United States real property holding corporation" as defined in Section 897(c)(2) of the Code and the applicable Treasury Regulations during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code.

(j) The Company has made available to Parent copies of all federal, state, local and foreign income, franchise and similar Tax Returns, examination reports, and statements of deficiencies assessed against, or agreed to by, the Company for all Tax periods ending on or after December 31, 2015.

(k) Section 2.15(m) of the Disclosure Schedule sets forth: (i) the taxable years of the Company as to which the applicable statute of limitation on the assessment and collection of Taxes have not expired, (ii) those years for which examinations by the taxing authorities have been completed, and (iii) those taxable years for which examinations by taxing authorities are presently being conducted.

(l) The Company does not have a "permanent establishment" (within the meaning of any applicable Tax treaty) or otherwise have an office or fixed place of business in any country outside the United States of America.

2.16 Employee Benefit Plans.

(a) Schedule. Section 2.16(a) of the Disclosure Schedule sets forth a list as of the Agreement Date of each material Company Employee Plan (except for (i) individual Company Option agreements, and (ii) only standard form(s) are listed for contracts that provide for employment or consulting services that are terminable "at will" and that are without severance or change of control pay or benefits and which do not materially deviate from such form). The Company has no commitments to establish any new Company Employee Plan, to materially modify any Company Employee Plan except to the extent required by Law, to the extent adopted or modified without material increase in expenses to the Company and in the ordinary course consistent with past practice, or to conform any such Company Employee Plan to the requirements of any applicable Law or as required by this Agreement).

(b) Documents. The Company has provided or made available to Parent correct and complete copies of: (i) all material documents (or for Company Employee Plans not reduced to writing, a written summary) embodying each material Company Employee Plan including, without limitation, all amendments thereto and all related trust documents, administrative service agreements, group annuity contracts, group insurance contracts, and policies pertaining to fiduciary liability insurance covering the fiduciaries for each Company Employee Plan; (ii) the most recent annual actuarial valuations, if any, prepared for each Company Employee Plan; (iii) the most recent annual report (Form Series 5500 and all schedules and financial statements attached thereto), if any, required under ERISA or the Code in connection with each Company Employee Plan; (iv) if the Company Employee Plan is funded, the most recent annual and periodic accounting of Company Employee Plan assets; (v) the most recent summary plan description together with the summary(ies) of material modifications thereto, if any, required under ERISA with respect to each Company Employee Plan; (vi) all IRS determination, opinion, notification and advisory letters, if applicable; (vii) all material correspondence to or from any Governmental Entity in the last three (3) years relating to any Company Employee Plan; and (viii) the most recent completed plan years discrimination tests for each Pension Plan for which such test is required.

(c) Compliance. In all material respects, each Company Employee Plan has been established and maintained in accordance with its terms and in compliance with all applicable laws, statutes, Orders, rules and regulations, including but not limited to ERISA or the Code. Any Company Employee Plan intended to be qualified under Section 401(a) of the Code and each trust intended to qualify under Section 501(a) of the Code is so qualified and has obtained a favorable determination, notification, advisory and/or opinion letter, as applicable, as to its qualified status from the IRS. For each Company Employee Plan that is intended to be qualified under Section 401(a) of the Code, to the Company's knowledge there has been no event, condition or circumstance that has adversely affected or is likely to adversely affect such qualified status. No "prohibited transaction," within the meaning of Section 4975 of the Code or Sections 406 and 407 of ERISA, and not otherwise exempt under Section 408 of ERISA, has occurred with respect to any Company Employee Plan that would reasonably be expected to result in any material liability. There are no current material Actions pending, or, to the knowledge of the Company, threatened in writing (other than routine claims for benefits) against any Company Employee Plan or against the assets of any Company Employee Plan. There are no material audits, inquiries or proceedings pending or, to the knowledge of the Company, threatened in writing by any Governmental Entity with respect to any Company Employee Plan.

(d) No Pension or Welfare Plans. Neither the Company nor any ERISA Affiliate has ever maintained, established, sponsored, participated in, contributed to or incurred any liability with respect to, any: (i) employee pension benefit plan within the meaning of Section 3(2) of ERISA (each, a "Pension Plan") that is subject to Title IV of ERISA or Section 412 of the Code; (ii) Multiemployer Plan; (iii) "multiple employer plan" as defined in ERISA or the Code; or (iv) a "funded welfare plan" within the meaning of Section 419 of the Code.

(e) No Post-Employment Obligations. Except as set forth in Section 2.16(e) of the Disclosure Schedule, no Company Employee Plan provides, or reflects or represents any liability to provide post-termination or retiree medical insurance or life insurance to any person for any reason, except as may be required by COBRA or any other similar and applicable state Law.

(f) Effect of Transaction.

(i) Neither the execution of this Agreement nor the consummation of the transactions contemplated hereby will (either alone or upon the occurrence of any additional or subsequent events) constitute an event under any Company Employee Plan that will or may result in any material payment (whether of severance pay or otherwise), acceleration, forgiveness of indebtedness, vesting, distribution, increase in benefits or obligation to fund benefits with respect to any Employee.

(ii) No payment or benefit that will or may be made by the Company (or Parent if required under this Agreement) with respect to any "disqualified individual" (as defined in Section 280G of the Code and the regulations thereunder and hereafter referred to as a "Disqualified Individual") will be characterized as a "parachute payment" within the meaning of Section 280G(b)(2) of the Code. There is no Contract, agreement, plan or arrangement to which the Company or any ERISA Affiliates is a party by which it is bound to compensate, indemnify, gross up or otherwise reimburse any Person for excise taxes paid pursuant to Section 4999 of the Code.

(g) Section 409A; Company Options. Each Company Employee Plan has been maintained and operated in documentary and operational compliance in all materials respects with Section 409A of the Code or an available exemption therefrom. There is no Contract, agreement, plan or arrangement to which the Company or any ERISA Affiliates is a party by which it is bound to compensate, indemnify, gross up or otherwise reimburse any Person for excise taxes paid pursuant to Section 409A of the Code. Each Company Option was granted in compliance, in all material respects, with all applicable Laws and all of the terms and conditions of the Company Incentive Plan pursuant to which it was issued. The terms of the Company Incentive Plan permit the treatment of the Company Options set forth in Section 1.8 of this Agreement. As of the Effective Time, the Company will have taken all actions required in order to effect the transactions set forth in Section 1.8(a) of this Agreement, and the cancellation and conversion of the Company Options described in Section 1.8(a) of this Agreement shall be effective and permitted by the instruments governing the Company Options. Each Company Option was granted with an exercise price per share equal to or greater than the fair market value of the underlying shares on the date of grant and has a grant date identical to the date on which the board of directors of the Company or authorized compensation committee thereof actually awarded the Company Option. Each Company Option qualifies for the tax and accounting treatment afforded to such Company Option in the Company's Tax Returns and the Company's financial statements, respectively, and does not trigger any liability for the Company Optionholder under Section 409A of the Code. The Company has heretofore provided or made available to Parent true and complete copies of the standard form of option agreement and any stock option agreements that differ from such standard form.

(h) Employment Matters. The Company is in compliance in all material respects with all applicable foreign, federal, state and local Laws, and collective bargaining agreements and arrangements respecting employment, employment practices, terms and conditions of employment, prohibited discrimination, equal employment, fair employment practices, immigration status, employee safety and health, and wages and hours.

(i) Labor. The Company is not a party to any collective bargaining agreement or union contract with respect to Employees and no collective bargaining agreement is currently being negotiated by the Company. There is no labor dispute, strike or work stoppage against the Company pending or, to the knowledge of the Company, threatened in writing which may materially interfere with the respective business activities of the Company. To the knowledge of the Company, neither the Company nor any of its representatives or Employees has committed any material unfair labor practice in connection with the operation of the respective businesses of the Company. There are no material actions, suits, claims, labor disputes or grievances pending, or, to the knowledge of the Company, threatened in writing, relating to any labor, safety or discrimination matters involving any Employee, including, without limitation, charges of unfair labor practices or discrimination complaints. To the knowledge of the Company, the Company has not engaged in any material unfair labor practices within the meaning of the National Labor Relations Act.

(j) Classification. Each individual who is classified by the Company as an independent contractor has been properly classified for purposes of participation and benefit accrual under each Company Employee Plan. All employees of the Company classified as exempt under the Fair Labor Standards Act and state and local wage and hour laws are properly classified in all material respects.

(k) Section 2.16(k) of the Disclosure Schedule contains a list of all persons who are employees, independent contractors or consultants of the Company as of the Agreement Date. For each such individual, the Company has made available to Parent the following: (i) name, (ii) title or position, (iii) current annual base compensation rate or contract fee and (iv) target and actual bonus, commission or other incentive-based compensation. As of the Agreement Date, all compensation, including wages, commissions, bonuses, fees and other compensation, payable to employees or other service providers of the Company, have been paid in full (or accrued in full in accordance with GAAP).

2.17 Insurance. Section 2.17 of the Disclosure Schedule sets forth a list of all current policies, or binders, of fire, liability, product liability, umbrella liability, real and personal property, workers' compensation, vehicular, directors' and officers' liability, fiduciary liability and other casualty and property insurance maintained by the Company and in effect as of the Agreement Date or under which the Company is a beneficiary of coverage (collectively, the "Insurance Policies"). Each of the Insurance Policies identified in Section 2.17 of the Disclosure Schedule is in full force and effect and shall remain in full force and effect following the consummation of the transactions contemplated by this Agreement, all premiums due and payable under all such Insurance Policies have been paid, and the Company is not in default with respect to its obligations thereunder and is otherwise

in compliance in all material respects with the terms of such Insurance Policies. There are no pending claims under any such Insurance Policies. Since December 31, 2012, neither the Company nor any of its Affiliates has made any material claim under any such Insurance Policies as to which coverage has been denied or disputed in writing by the applicable insurer or in respect of which there is an outstanding reservation of rights. The Company has no knowledge of any threatened termination of, or premium increase with respect to, any such Insurance Policy, except in accordance with the terms thereof. The Insurance Policies are of the type and in the amounts customarily carried by Persons conduct a business similar to the Company and are sufficient for compliance with all applicable Laws and Contracts to which the Company is a party or by which it is bound.

2.18 Compliance With Laws; Permits.

(a) Compliance. The Company is not and, since December 31, 2012, has not been in any material respect in conflict with, or in default or in violation of, any applicable Laws. There is no judgment, injunction, Order or decree binding upon the Company which has or would reasonably be expected to have the effect of prohibiting or materially impairing the Current Company Business. Since December 31, 2012, the Company has not received any written notice from any third party that the Company is or may be in violation of, or has failed to comply in any material respect with, any applicable Law. There is no investigation or Action pending, or to the Company's knowledge, threatened by a Governmental Entity against the Company.

(b) Permits. Section 2.18(b) sets forth a list of all permits, licenses, certificates, variances, clearances, consents, registrations, immunities, listings, exemptions, approvals and other authorizations from Governmental Entities owned, held or possessed by the Company that are necessary to operate and use its properties and the Assets and to carry on and conduct the Current Company Business (collectively, the "Company Permits"). Each Company Permit is valid, subsisting and in full force and effect and no suspension, expiration, or cancellation of any of the Company Permits is pending or, to the knowledge of the Company, threatened. The Company and the Current Company Business are in compliance in all material respects with the terms of the Company Permits and since December 31, 2012, neither the Company or the Current Company Business has been in material violation under any such Company Permit and, to the knowledge of the Company, no event has occurred which would constitute a default or violation of any material term or conditions of any Company Permit.

2.19 Customers and Suppliers. Section 2.19 of the Disclosure Schedule sets forth a list of the top ten (10) customers of the Company by volume of sales to such customers, and Section 2.19 of the Disclosure Schedule sets forth a list of the top ten (10) suppliers of the Company by dollar value of net purchases from such suppliers, for each of the fiscal year ended December 31, 2016, December 31, 2017, and up through the Company Balance Sheet Date. The Company has not received any written notice or, to the knowledge of the Company, oral notice (i) from any of the customers listed on Section 2.19 of the Disclosure Schedule that any such customer will stop, or change the payment or price terms with respect to, buying products from the Company, or (ii) from any of the suppliers listed on Section 2.19 of the Disclosure Schedule that any such supplier will stop, or change the payment or price terms with respect to, supplying products or services to the Company.

2.20 Product Liability. To the knowledge of the Company, (a) there are no defects in design, construction or manufacture of any products which would adversely affect performance or create an unusual risk of injury to persons or property and (b) there are no citations, decisions, adjudications or written statements by any Governmental Entity or consent decrees or other Orders stating or alleging that any product is defective or unsafe or fails to meet any standards promulgated by any such Governmental Entity. Except as set forth in Section 2.20, since December 31, 2012, none of the products has been the subject of any replacement, field fix or retrofit, modification or recall campaign by the Company, except in the ordinary course of business consistent with past practice and, to the knowledge of the Company, no facts or conditions related to any product exist which could reasonably be expected to result in such a campaign.

2.21 Product Warranty. Section 2.21 of the Disclosure Schedule sets forth the standard terms and conditions of sale or lease of the products and all forms of guaranty, warranty, right of return, right of credit or other indemnity that legally bind the Company in connection with any products that has not yet expired. No product is subject to any term and conditions, guaranty, warranty or other indemnity beyond the applicable standard terms and conditions of sale or lease set forth in Section 2.21 of the Disclosure Schedule. Each product manufactured, distributed, marketed or sold by the Company since December 31, 2013, has been in conformity in all material respects with all applicable Laws, contractual commitments and express and implied warranties (including in conformity with all advertisements, commercials, promotional materials and public statements regarding such products).

2.22 Related Party Transactions. No executive officer or director of the Company or any person owning 5% or more of the Company Capital Stock (or any of such person's immediate family members or Affiliates or associates) is a party to any Contract with or binding upon the Company or any of the Assets, rights or properties or has any interest in any property owned by the Company or has engaged in any transaction with any of the foregoing within the last twelve (12) months.

2.23 Trade Control Laws. Neither the Company nor any of its respective officers, directors or employees, nor to the knowledge of the Company, any agent or other third party representative acting on behalf of the Company, is currently, or has been since December 31, 2012: (a) a Sanctioned Person, (b) organized or resident in a Sanctioned Country, (c) engaged in any dealings or transactions, directly or indirectly, with any Sanctioned Person or in or with any Sanctioned Country, to the extent such activities violate applicable Sanctions Laws or applicable export-import Laws, or (d) otherwise in violation of applicable Sanctions Laws, applicable export-import Laws, or the anti-boycott Laws administered by the U.S. Department of Commerce and the U.S. Department of Treasury's IRS.

2.24 Anti-Corruption Laws. Neither the Company nor any director, officer, agent, employee or Affiliate or any other Person acting on behalf of the Company has (a) violated or is in violation of any provision of the Foreign Corrupt Practices Act of 1977 (the "FCPA") or the U.S. Anti-Kickback Statute (42 USC § 1320a-7b(b)) or any other similar Law; (b) taken any unlawful action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment or giving of money, property, gifts or anything else of value, directly or indirectly, to any "foreign official" (as such term is defined in the FCPA); (c) made any bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any Person, private or public, regardless of what form, whether in money, property, or services; or (d) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity. Since December 31, 2012, the Company has instituted and maintained policies and procedures reasonably designed to promote and achieve compliance with applicable anti-corruption laws and with the representations and warranties contained herein. The Company is in material compliance with the applicable "sunshine provisions" of the Patient Protection and Affordable Health Care Act, and with applicable, territorial equivalent payment transparency Laws issued, enacted or promulgated by any Governmental Entity.

2.25 Inventories. All inventory of the Company are of a quality and quantity usable and, with respect to finished goods, salable in the ordinary course of business. None of such inventory is slow-moving, obsolete, damaged, defective or of below-standard quality, other than that which has been written off or written down to net realizable value on the Company Balance Sheet or the accounting records of the Company as of the Closing Date in accordance with GAAP. All inventory of the Company is held by the Company free and clear of all Liens and no inventory is held on a consignment basis. Except as set forth on Section 2.25 of the Disclosure Schedule, all inventory of the Company is maintained at the facilities of the Company and the quantities of each item of inventory (whether raw material, work-in-process or finished goods) are not excessive, but are reasonable in the present circumstances of the Company.

2.26 Accounts Receivable; Accounts Payable; Bank Accounts.

(a) Section 3.14 [Accounts Receivable. The accounts receivable reflected on the Company Balance Sheet and the accounts receivable arising after the Company Balance Sheet Date (i) have arisen from bona fide transactions entered into by the Company involving the actual sale of goods or the rendering of services in the ordinary course of business consistent with past practice; (ii) constitute only valid, undisputed claims of the Company not subject to claims of set-off or other defenses or counterclaims other than normal cash discounts accrued in the ordinary course of business consistent with past practice; and (iii) subject to a reserve for bad debts shown on the Company Balance Sheet or, with respect to accounts receivable arising after the Company Balance Sheet Date, on the accounting records of the Company, are collectible in full within 180 days after billing. The reserve for bad debts shown on the Company Balance Sheet or, with respect to accounts receivable arising after the Company Balance Sheet Date, on the accounting records of the Company have been determined in accordance with GAAP, consistently applied.

(b) Since the Company Balance Sheet Date, the Company has satisfied, paid and discharged all of its accounts payable and other Current Liabilities in a timely manner and in accordance with their respective terms of payment, except (i) for current accounts payable which are not yet delinquent and are properly accounted for in the Company Financial Statements in accordance with GAAP, consistently applied and (ii) accounts payable that are the subject of any bona fide dispute. Any and all such bona fide disputes that are currently unresolved are described on Section 2.26(b) of the Disclosure Schedule.

(c) Section 2.26(c) of the Disclosure Schedule sets forth a list of the names and addresses of all banks and financial institutions in which the Company has an account, deposit, safe-deposit box, line of credit or other loan facility or relationship, or lock box or other arrangement for the collection of accounts receivable, with the names of all Persons authorized to draw or borrow thereon or to obtain access thereto.

2.27 Compliance with Privacy Laws.

(a) The collection, use and retention of the Personal Information by the Company, and the transfer of the Personal Information by the Company to Parent as a result of the Merger comply with all Privacy Laws and are consistent with the Company's own privacy policies. In connection with its collection, storage, transfer (including, without limitation, any transfer

across national borders) and/or use of any Personal Information, the Company is and, since December 31, 2012, has been in compliance, in all material respects, with all applicable Privacy Laws and the requirements of any Contract or codes of conduct to which the Company is subject or a party. Since December 31, 2012 Company has used commercially reasonable physical, technical, organizational and administrative security measures and policies in place to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. The Company is and, since December 31, 2012, has been in compliance, in all material respects, with all Laws relating to data loss, theft and breach of security notification obligations.

(b) There are no Actions pending, ongoing, or to the knowledge of the Company, threatened with respect to the Company's collection, use, disclosure or retention of the Personal Information.

(c) No decision, judgment or Order, whether statutory or otherwise, is pending or has been made, and no notice has been given pursuant to any Privacy Laws, requiring the Company to take (or refrain from taking) any action with respect to the Personal Information.

2.28 Books and Records. Section 3.23 Books and Records. The minute books and stock record books of the Company, all of which have been made available to Parent, are complete and correct and have been maintained in accordance with sound business practices. The minute book of the Company contains accurate and complete records of all meetings, and actions taken by written consent of, the Company Stockholders, board of directors or equivalent body, committees of such board of directors or equivalent body, and no meeting, or action taken by written consent, of any such Company Stockholders, board of directors, or committee has been held for which minutes have not been prepared and are not contained in such minute books. At the Closing, all of those books and records will be in the possession of the Surviving Corporation.

2.29 Takeover Statutes. The board of directors of the Company has taken all actions necessary so that the restrictions on take-over bids, share acquisitions, business combinations and stockholder vote requirements contained in Section 203 of Delaware Law and any other "moratorium," "control share acquisition," "business combination," "fair price" or other form of anti-takeover Laws or regulations that are or may purport to be applicable ("Takeover Statutes") will not apply with respect to or as a result of the Merger or the other transactions contemplated by this Agreement.

2.30 Brokers' and Finders' Fee. No broker, finder or investment banker is entitled to brokerage or finders' fees or agents' commissions or investment bankers' fees or any similar charges from the Company in connection with the Merger, this Agreement or any transaction contemplated hereby.

2.31 Full Disclosure. Section 3.26 [Full Disclosure. No representation or warranty by the Company in this Agreement or any Ancillary Document to which the Company is a party and no statement contained in the Disclosure Schedule or any certificate furnished or to be furnished by the Company to Parent as required pursuant to this Agreement contains any untrue statement of a material fact, or omits to state a material fact necessary to make the statements contained therein, in light of the circumstances in which they are made, not misleading.

ARTICLE III
REPRESENTATIONS AND WARRANTIES OF PARENT AND MERGER SUB

Parent and Merger Sub represent and warrant to the Company as set forth in this Article III:

3.1 Organization, Standing and Power. Each of Parent and Merger Sub is a corporation duly organized, validly existing and in good standing, if applicable, under the applicable Laws of the state of Utah.

3.2 Authority. Parent and Merger Sub have all requisite corporate power and authority to enter into this Agreement and to consummate the Merger and the other transactions contemplated by this Agreement. The execution and delivery by Parent and Merger Sub of this Agreement and the consummation by Parent and Merger Sub of the Merger and the other transactions contemplated by this Agreement have been duly authorized by all necessary corporate action on the part of Parent and Merger Sub, and no other authorization or consent of Parent, Merger Sub or their respective stockholders is necessary. This Agreement has been duly executed and delivered by Parent and Merger Sub, and, assuming this Agreement constitutes the valid and binding obligation of the Company, this Agreement constitutes a valid and binding obligation of each of Parent and Merger Sub, enforceable against each of Parent and Merger Sub in accordance with its terms, subject to the Enforceability Limitations.

3.3 Noncontravention. Neither the execution and delivery by Parent and Merger Sub of this Agreement, nor the consummation by Parent or Merger Sub of any of the transactions contemplated hereby, will:

(a) conflict with or violate any provision of the Certificate of Incorporation or bylaws of Parent or the Certificate of Incorporation or bylaws of Merger Sub;

(b) require on the part of Parent or Merger Sub any registration, declaration or filing with, or any permit, Order, authorization, consent or approval of, any Governmental Entity, except for (i) compliance with the applicable requirements of the HSR Act and foreign antitrust or trade regulation applicable Laws, (ii) compliance with reporting under the Securities and Exchange Act of 1934, as amended, and (iii) any registration, declaration, filing, permit, Order, authorization, consent or approval which if not made or obtained would not reasonably be expected to result in a material adverse effect on Parent's or Merger Sub's ability to consummate the Merger;

(c) conflict with, result in a breach of, constitute (with or without due notice or lapse of time or both) a default under, result in the acceleration of obligations under, create in any party any right to terminate or modify, or require any notice, consent or waiver under, any Contract to which Parent or Merger Sub is a party or by which Parent or Merger Sub is bound, except for that which would not reasonably be expected to result in a material adverse effect on Parent's or Merger Sub's ability to consummate the Merger;

(d) violate any Order, writ, injunction or decree applicable to Parent or Merger Sub or any of their respective material Assets, except for any violation that would not reasonably be expected to result in a material adverse effect on Parent's or Merger Sub's ability to consummate the Merger; or

(e) violate any applicable Law applicable to Parent or Merger Sub or any of their respective material Assets, except for any violation that would not reasonably be expected to result in a material adverse effect on Parent's or Merger Sub's ability to consummate the Merger.

3.4 Litigation. There are no Actions pending or, to the knowledge of Parent, threatened against Parent or the Merger Sub before any Governmental Entity or any arbitrator that seeks to restrain or enjoin the consummation of the transactions contemplated by this Agreement or which would reasonably be expected to have a material adverse effect on Parent's or Merger Sub's ability to consummate the Merger or any of the other transactions contemplated hereby.

3.5 Merger Sub. Merger Sub was formed solely for the purpose of engaging in the transactions contemplated by this Agreement, has engaged in no other business activities and has conducted its operations only as contemplated by this Agreement.

3.6 Adequacy of Funds. Parent has as of the Agreement Date, and as of the Effective Time will have, adequate financial resources, or financial resources under an existing revolving line of credit, to satisfy its monetary and other obligations under this Agreement at Closing.

3.7 Brokers' and Finders' Fee. Except for Piper Jaffray & Co. and Raymond James and Associates, Inc. (whose fees and expenses in connection with the transactions contemplated by this Agreement will be paid by Parent), no broker, finder or investment banker is entitled to brokerage or finders' fees or agents' commissions or investment bankers' fees or any similar charges from Parent or any of its Affiliates in connection with the Merger, this Agreement or any transaction contemplated hereby.

3.8 Exclusivity of Company Representations and Warranties; Forward-Looking Information.

(a) The representations and warranties of the Company and the Company Stakeholders set forth in this Agreement, any Ancillary Document to which the Company or any Company Stakeholder is a party, and any certificate or instrument of the Company or any Company Stakeholder as required to be delivered hereunder constitute the sole and exclusive representations and warranties of the Company or any of its Affiliates, or such Company Stakeholder, as applicable, or its or their officers, directors, employees or equityholders in connection with the transactions contemplated hereunder, and each of Parent and Merger Sub understands, acknowledges and agrees that all other representations and warranties of any kind or nature whether express, implied or statutory are specifically disclaimed by the Company, and neither Parent nor Merger Sub is relying or has relied on any representations or warranties whatsoever regarding the subject matter of this Agreement or in connection with the transactions contemplated hereby, express or implied, except for the representations and warranties of the Company and the Company Stakeholders set forth in this Agreement, any Ancillary Document to which the Company or a Company Stakeholder is a party, and any certificate or instrument of the Company as required to be delivered hereunder.

(b) In connection with the due diligence investigation of the Company by Parent and its representatives, Parent and its representatives have received and may continue to receive after the Agreement Date from the Company and its representatives certain estimates, projections, forecasts, and other forward-looking information (collectively, "Company Projections"). Parent hereby acknowledges that neither the Company nor any of its representatives has made or is making any express or implied representation or warranty with respect to any Company Projections.

ARTICLE IV
CONDUCT PRIOR TO THE EFFECTIVE TIME

4.1 Conduct of Business of the Company. During the period from the Agreement Date through the earlier of (x) the termination of this Agreement in accordance with its terms and (y) the Effective Time (the "Pre-Closing Period"), except (i) as set forth in Section 4.1 of the Disclosure Schedule, (ii) as expressly permitted under this Agreement, (iii) as required by applicable Law, or (iv) as consented to in writing by Parent, (A) the Company shall use its commercially reasonable efforts to carry on its business in the usual, regular and ordinary course in substantially the same manner as heretofore conducted and in compliance with applicable Law, pay its debts and Taxes when due (subject to good faith disputes regarding such debts and Taxes) and pay or perform other material obligations when due, (B) the Company shall use commercially reasonable efforts to maintain and preserve intact the current organization, business and franchise of the Company and to preserve the rights, franchises, goodwill and relationships of its employees, customers, lenders, suppliers, regulators and others having business relationships with the Company, and (C) the Company shall not:

(a) amend or make any changes to the Company Organizational Documents;

(b) merge or consolidate with any other Person or acquire by merging or consolidating with, or by purchasing a substantial portion of the stock or assets of, any business or any corporation, partnership, association or other business organization or division thereof;

(c) (i) split, combine, reclassify, purchase, redeem or otherwise acquire any shares of Company Capital Stock, except in connection with the Company Incentive Plan, (ii) enter into any agreement with respect to voting of any of the Company Capital Stock, or (iii) declare, set aside or pay any non-cash dividend or other non-cash distribution in respect of the Company Capital Stock;

(d) declare, set aside or pay any dividend or other distribution, payable in cash, stock, property or otherwise, in respect of the Company Capital Stock;

(e) purchase, redeem or otherwise acquire, except in connection with the Company Incentive Plan, any shares of Company Capital Stock or any securities convertible or exchangeable or exercisable for any shares of Company Capital Stock;

(f) transfer, lease, license, guarantee, sell, mortgage, pledge, dispose of or encumber any material (either individual or in the aggregate) Asset, except for (i) the incurrence of Permitted Liens and (ii) the disposition of inventory in the ordinary course of business consistent with past practice;

(g) create, incur or assume, or agree to create, incur or assume, any Indebtedness or issue any debt securities or warrants or other rights to acquire debt securities of the Company or assume, guarantee or endorse, as an accommodation or otherwise, the obligations of any other Person for Indebtedness or capital obligations, in the case of any of the foregoing;

(h) issue, deliver, sell, pledge, dispose of or otherwise encumber any shares of, or securities convertible into or exchangeable or exercisable for, or options, warrants, calls, commitments or rights of any kind to acquire, any shares of its capital stock of any class, except that the Company may (i) issue shares of Company Capital Stock upon the exercise of Company Options in accordance with their terms as of the Agreement Date, and (ii) issue shares of Company Common Stock upon conversion of Company Preferred Stock;

(i) purchase or otherwise acquire any assets or make or agree to make any capital expenditures, in each case that are in excess of $50,000 in any calendar month;

(j) make any material change in accounting methods, policies or procedures, except as required by GAAP or by applicable Law or a Governmental Entity;

(k) revalue any of its material Assets except as required by GAAP;

(l) enter into, modify, amend or terminate, or waive under (i) any Material Contract; or (ii) any IP License pursuant to which the Company, or any other party thereto has, or will have, material continuing obligations, rights or interests, in each case outside the ordinary course of business;

(m) make any loan, advance, capital contribution to, or investment in, any Person, other than loans, advances or capital contributions to, or investments in the ordinary course of business consistent with past practice and routine business expense advances to employees of the Company;

(n) (i) grant, extend, amend (except as required in the diligent prosecution of the Company Intellectual Property Rights), waive or modify the Company's rights in or to any Company Intellectual Property Rights or material Licensed Intellectual Property Rights, (ii) fail to diligently prosecute any material Company Intellectual Property Rights in the U.S. or in any non-U.S. jurisdiction material to the Company's business, or (iii) fail to exercise a right of renewal or extension under or with respect to any material Company Intellectual Property Rights or material Licensed Intellectual Property Rights;

(o) (i) adopt, establish, terminate or amend any Company Employee Plan, collective bargaining agreement, severance agreement or similar Contract, or any other employee benefit, plan, program or arrangements sponsored or maintained by the Company or any of its Affiliates (other than offer letters and letter agreements entered into, in the ordinary course of business and consistent with past practice, with newly hired employees who are terminable "at will"), (ii) institute any increase in any compensation or benefits provided pursuant to any Company Employee Plan other than in the ordinary course of business and consistent with past practice, (iii) pay any special bonus or special remuneration (cash, equity or otherwise) to any Employee (including rights to severance or indemnification), except pursuant to agreements outstanding as of the Agreement Date (to the extent payments under such agreements are within the ordinary course of business and consistent with past practice) and except for Change of Control Payments which are paid in connection with the Closing, and (iv) increase the fees or bonus opportunity of any consultant or contractor of the Company other than in the ordinary course of business and consistent with past practice;

(p) hire or terminate the service of any Employee (other than (i) hires to fill vacancies, or (ii) any terminations for "cause") or grant any increases in compensation, perquisites or benefits to current Employees, other than annual increases in base salary to nonexecutive Employees in the ordinary course of business to the extent consistent with past practice of the Company;

(q) grant any material severance or termination pay (cash, equity or otherwise) to any Employee, except pursuant to written agreements outstanding, or policies existing, on the Agreement Date, or adopt any new severance plan, or amend or modify or alter in any material respect any severance plan, agreement or arrangement existing on the Agreement Date;

(r) make, change or rescind any Tax election, settle or compromise any Action or liability relating to Taxes, enter into any Tax allocation, sharing, indemnity Contract (other than a Commercial Contract), surrender or compromise any right to claim a Tax refund, adopt or change any Tax accounting method, change an annual accounting period, amend any Tax Return, enter into any closing agreement relating to any material Tax, surrender any right to claim a refund of Taxes, or consent to or request any extension or waiver of the statute of limitations period applicable to the payment of any Taxes, initiate any voluntary disclosure, Tax amnesty filing or other Action relating to Taxes, or fail to pay any taxes as they became due and payable;

(s) cancel, compromise, release or waive any pending or threatened Action, suit or proceeding or other claims or rights with a value exceeding $50,000 per claim or $150,000 in the aggregate, or otherwise outside the ordinary course of business;

(t) voluntarily recognize or promise neutrality to a labor organization, except pursuant to Law;

(u) make any material change to its policies or practices regarding the extension or customer credit, sales of the Company's products, collection of accounts receivable or payment of accounts payable;

(v) make any material change in the Current Company Business; or

(w) authorize or enter into any Contract or agreement to do any of the foregoing.

4.2 Consent Procedures. If the Company desires to take an action which would be prohibited pursuant to Section 4.1 without the prior written consent of Parent, prior to taking such action the Company may request such written consent by sending an email or facsimile to the following individual:

Brian G. Lloyd
Email: Brian.Lloyd@merit.com
Facsimile: (801) 208-4238

If Parent fails to respond to a request from the Company for consent pursuant to this Section 4.2 within five (5) Business Days of the delivery of the email or facsimile contemplated above, such consent shall be deemed not to be given by Parent.

ARTICLE V
ADDITIONAL AGREEMENTS

5.1 Confidentiality; Access.

(a) The parties acknowledge that the Company and Parent (or one of Parent's Affiliates) have previously executed that certain confidential disclosure agreement, dated October 30, 2017 (as amended, the "Confidentiality Agreement"). Except as may be required by applicable Law or any listing agreement with any applicable national securities exchange or pursuant to the terms and provisions of the Confidentiality Agreement, the parties will hold any information which is non-public in confidence in accordance with the terms of the Confidentiality Agreement and, in the event this Agreement is terminated for any reason, the parties shall promptly return or destroy such information in accordance with the Confidentiality Agreement.

(b) Subject to applicable Law and upon reasonable notice, the Company shall afford Parent and its employees, attorneys, accountants, consultants and other representatives reasonable access, during normal business hours during the Pre-Closing Period, to its properties, books, contracts and records and appropriate individuals as Parent may reasonably request (including employees, attorneys, accountants, consultants and other professionals), and during such period, the Company shall furnish promptly to Parent such information concerning its business, properties and personnel as Parent may reasonably request; *provided*, *however*, that the Company may restrict the foregoing access to the extent that (i) any applicable Law requires such party or its Subsidiaries to restrict or prohibit access to any such properties or information to Parent, or (ii) such access would give rise to a material risk of waiving any attorney-client privilege, work product doctrine or other applicable privilege applicable to such documents or information. In addition, any information obtained from the Company pursuant to the access contemplated by this Section 5.1(b) shall be subject to the Confidentiality Agreement. Any access to any of the Company's facilities shall be subject to the Company's reasonable security measures and insurance requirements. Notwithstanding anything the foregoing, any access to any Company offices shall be subject to the Company's reasonable security measures and insurance requirements and the requirements of the applicable Leases and shall not include the right to perform any invasive testing or soil, air and groundwater sampling, including, any Phase I or Phase II environmental assessment.

5.2 Public Disclosure. Neither the Company nor Parent shall issue any press release or make any similar public statement, announcement or disclosure relating to the subject matter of this Agreement without the prior written approval of the other party; *provided*, *however*, that Parent may issue any press release, make any public announcement or file any documents, report or application with any Governmental Entity or other Person, in each case, as and to the extent required (as determined in the reasonably discretion of Parent or its legal counsel) under applicable Law (except that, with respect to any such press release, public announcement, or filing prior to the Effective Time, Parent will provide the Company with a reasonable opportunity to review and suggest comments (which comments may be accepted or rejected in Parent's sole discretion) on such press release, public announcement, or filing).

5.3 Regulatory Approval; Commercially Reasonable Efforts.

(a) Regulatory Filings. Each of Parent, Merger Sub and the Company shall coordinate and cooperate with one another and shall each use commercially reasonable efforts to comply with, and shall each refrain from willfully taking any action with the intent to impede compliance with, applicable Laws, and within ten (10) days of the Agreement Date, each of Parent, Merger Sub and the Company shall make all filings, notices, petitions, statements, registrations, submissions of information, applications or submissions of other documents required by any Governmental Entity in connection with the Merger and the other transactions contemplated hereby, including, without limitation, (i) Notification and Report Forms with the United States Federal Trade Commission (the "FTC") and the Antitrust Division of the United States Department of Justice ("DOJ") as required by the HSR Act (the "HSR Filings") and such initial filings from Parent and the Company shall request early termination of any applicable waiting period under the HSR Act, (ii) any other filing necessary to obtain any Necessary Consent, (iii) filings under any other comparable pre-merger notification forms required by the merger notification or control laws of any applicable jurisdiction, as agreed by the parties hereto, and (iv) any filings required under the Securities Act, the Securities Exchange Act of 1934, as amended, any applicable state or securities or "blue sky" laws and the securities laws of any foreign country, or any other applicable Law relating to the Merger. Each of Parent and the Company will cause all documents that it is responsible for filing with any Governmental Entity under this Section 5.3(a) to comply in all material respects with all applicable Law.

(b) Exchange of Information. Except where prohibited by applicable Law relating to the exchange of information, and subject to the Confidentiality Agreement, Parent, Merger Sub and the Company shall have the right to review in advance, and, to the extent reasonably practicable, each shall consult the other on, all information relating to the other and each of their respective Affiliates that appears in any HSR Filings made with, or written materials submitted to, any Governmental Entity in connection herewith; *provided that* materials may be redacted: (i) to remove references concerning the valuation of the Company or other confidential information not related exclusively to the Company, (ii) as necessary to comply with contractual arrangements, (iii) as necessary to address reasonable attorney-client or other privilege or confidentiality concerns, and (iv) as necessary to comply with applicable Laws.

(c) Commercially Reasonable Efforts. Without limiting the generality of undertakings of each party hereto pursuant to this Section 5.3, each of Parent, Merger Sub, and the Company shall, and shall cause each of its Affiliates to, use its commercially reasonable efforts to: (i) respond to any inquiries by any Governmental Entity regarding antitrust or other matters with respect to the transactions contemplated by this Agreement and the Ancillary Documents, (ii) avoid the entry or enactment of any permanent, preliminary or temporary Order that would delay, restrain, prevent, enjoin or otherwise prohibit consummation of the transactions contemplated by the Agreement and the Ancillary Documents and (iii) in the event that any permanent, preliminary or temporary Order is entered, issued or enacted, or becomes reasonably foreseeable to be entered, issued or enacted, in any Action of any kind that would make consummation of the transactions contemplated by this Agreement and the Ancillary Documents unlawful or that would materially delay, restrain, prevent, enjoin or otherwise prohibit consummation of the transactions contemplated by this Agreement and the Ancillary Documents, to resist, vacate, modify, reverse, suspend, prevent, eliminate, avoid or remove such actual, anticipated or threatened Order so as to permit such consummation on a schedule as close as possible to that contemplated by this Agreement and the Ancillary Documents.

(d) No Additional Obligations. Notwithstanding the foregoing, nothing in this Section 5.3 or Section 5.15(b) shall require, or shall be construed to require, Parent or any of its Affiliates to (or to agree to): (i) sell, license or otherwise dispose of, or hold separate or agree to sell, license or otherwise dispose of, any asset, category of assets or business, (ii) terminate any existing relationship, contractual right or obligation, (iii) terminate any venture or other arrangement, (iv) create any relationship, contractual right or obligation or (v) effectuate any divestiture, or other structural or conduct modification, in each case relating to the business of Parent or its Affiliates (including after the Closing, any of the Assets), (vi) accept any condition relating to, or change or restriction in, the operation of Parent's business, assets or interests, or (vii) materially modify or waive any term or condition set forth in this Agreement or the Ancillary Documents.

(e) Notification. Subject to applicable Law, each of Parent, Merger Sub, and the Company shall promptly notify the other parties hereto of any communication it or any of its Affiliates receives from any Governmental Entity relating to the transactions contemplated by this Agreement and the Ancillary Documents (but, for the avoidance of doubt, not including any interactions between Parent or the Company with Governmental Entities in the ordinary course of business, any disclosure which is not permitted by Law or any disclosure containing confidential information) and permit the other parties hereto to review in advance (and to consider any comments made by the other party in relation to) any proposed communication by such party to any Governmental Entity relating to such matters. Neither Parent, Merger Sub, the Company nor its Affiliates shall participate in or agree to participate in any substantive meeting, appearance, telephone call or discussion with any Governmental Entity in respect of any filings, investigation (including any settlement of the investigation), litigation or other inquiry relating to such matters unless it consults with the other parties hereto in advance and, to the extent permitted by such Governmental Entity, gives such

other party the opportunity to attend and participate in such meeting, appearance, telephone call or discussion. Each of Parent, Merger Sub, and the Company will provide the outside legal counsel for the other parties hereto with copies of all correspondence, filings or communications between them or any of their representatives, on the one hand, and any Governmental Entity or members of its staff, on the other hand, with respect to the transactions contemplated by this Agreement and the Ancillary Documents; *provided that* materials may be redacted (i) to remove references concerning the valuation of the Company or other confidential information not related exclusively to the Company, (ii) as necessary to comply with contractual arrangements, and (iii) as necessary to address reasonable attorney-client or other privilege or confidentiality concerns.

(f) Filing Fees. All filing and other fees required under the HSR Act (the "HSR Fees") shall be shared equally by Parent, on the one hand, and the Company Securityholders (with the Company Securityholders' portion of the HSR Fees being satisfied through such portion constituting a "Transaction Expense" as set forth therein).

5.4 Employees.

(a) For each Continuing Employee, for one year following the Effective Time, Parent, in its sole discretion, will either (a) continue (or cause the Surviving Corporation to continue) to maintain the Company Employee Plans on substantially the same terms as in effect immediately prior to the Agreement Date, or (b) arrange for each participant (including, without limitation, all dependents) in the Company Employee plans (the "Company Participants") to participate in substantially similar plans or arrangements, as determined on a plan-by-plan basis or an arrangement-for-arrangement basis of Parent or its applicable Subsidiary ("Parent Plans"), or (c) a combination of clauses (a) and (b) so that each Company Participant shall have compensation and benefits, as determined on a plan-by-plan basis based upon Company Employee Plans or an arrangement-for-arrangement basis, at least equivalent to the compensation and benefits provided to each Company Participant under the Company Employee Plans prior to the Agreement Date. To the extent Parent elects to have Company Participants participate in the Parent Plans following the Closing Date, to the extent permissible under applicable Law and the Parent Plans, (i) each Company Participant will receive credit for purposes of eligibility to participate and vesting under such Parent Plans for years of service with the Company (or any of its predecessors) prior to the Closing Date, and (ii) Parent will cause any and all pre-existing condition limitations, eligibility waiting periods and evidence of insurability requirements under any Parent Plans that are group health plans in which such Company Participant will participate to be waived with respect to the plan year in which the Effective Time occurs and will provide credit for any co-payments and deductibles prior to the Effective Time for purposes of satisfying any applicable deductible, out-of-pocket or similar requirements under any such plans with respect to the plan year in which the Effective Time occurs that may apply after the Effective Time. To the extent permissible under applicable Law and the Parent Plans, all vacation accrued by Continuing Employees under the vacation policies of the Company or predecessors shall be carried over by Parent and shall be permitted to be maintained up to the levels permitted under the applicable policy of the Company or its predecessors and shall not be subject to accrual limits or other forfeiture and shall not limit future accruals; *provided*, *however*, the foregoing shall not require Parent to permit any vacation accrual to extend past the last day of the plan year in which the Effective Time occurs. In each case, base salary and bonus or commission opportunity targets and structure as of immediately prior to the Effective Time shall not be decreased for a period of one year following the Effective Time for any Continuing Employee who continues to be employed by Parent, the Surviving Corporation or their respective Subsidiaries during that period. Nothing in this Section 5.4(a) shall limit the right of Parent or the Surviving Corporation to terminate the employment of any Continuing Employee.

(b) Termination of 401(k) Plan. If Parent provides written notice to the Company at least ten (10) days prior to the Closing Date, then effective no later than the day immediately preceding the Closing Date, the Company shall terminate any and all plans intended to include a Code Section 401(k) cash or deferral arrangement. If Parent provides such written notice to the Company, then no later than two (2) days prior to the Closing Date, the Company shall provide Parent with reasonable evidence that such 401(k) plan(s) have been terminated (effective as of the day immediately preceding the Closing Date) pursuant to resolutions of the Company's board of directors.

(c) No Beneficiaries. Nothing in this Section 5.4 express or implied, (i) is intended to or shall confer upon any Person and their respective successors or assigns, including any current or former Employee, any right, benefit or remedy of any nature whatsoever under or by reason of this Agreement, (ii) shall establish or constitute an amendment, termination or modification of, or an undertaking to establish, amend, terminate or modify, any benefit plan, program, agreement or arrangement, (iii) shall alter or limit the ability of Parent or any of its Subsidiaries to amend, modify or terminate any benefit plan, program, agreement or arrangement at any time assumed, established, sponsored or maintained by any of them or (iv) shall create any obligation on the part of Parent or its Subsidiaries to employ or engage any Employee for any period following the Effective Time.

5.5 FIRPTA Matters. At the Closing, the Company shall deliver to Parent: (a) a statement conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3); and (b) the notification to the IRS required under Treasury Regulations Section 1.897-2(h)(2).

5.6 Indemnification of Officers and Directors of the Company.

(a) For six years after the Effective Time, the Surviving Corporation will fulfill and honor in all respects the obligations of the Company, in any case as in effect on the Agreement Date and subject to any limitations of applicable Law or set forth in any Company Indemnification Provisions, pursuant to the indemnification provisions of the Company Organizational Documents and pursuant to any indemnification agreements delivered to Merger Sub prior to the Effective Time, if any (collectively, the "Company Indemnification Provisions") among the Company and the current and former directors and officers of the Company (the "D&O Indemnified Parties"), with respect to claims arising out of matters existing or occurring at or prior to the Effective Time which are asserted after the Effective Time. Any claims for indemnification made under this Section 5.6 on or prior to the sixth anniversary of the Effective Time shall survive such anniversary until the resolution thereof.

(b) In connection with the Closing, the Company shall, at its own expense, purchase a six (6) year directors' and officers' "tail" insurance policy, in the coverage and amounts, and on the terms and conditions, of the current policies of directors' and officers' liability (and fiduciary) insurance maintained by or on behalf of the Company as of the Agreement Date (the "D&O Tail"), that provides coverage for acts or omissions of the D&O Indemnified Parties occurring at or prior to the Effective Time. The premium for the D&O Tail shall be paid at the Closing. From and after the Closing, the Surviving Corporation shall (and shall cause its Subsidiaries to) not cancel (or permit to be cancelled) or take (or cause to be taken) any action or omission that would reasonably be expected to result in the cancellation of the D&O Tail.

(c) If the Surviving Corporation or any of their respective successors or assigns proposes to (i) consolidate with or merge into any other Person and the Surviving Corporation shall not be the continuing or surviving corporation or entity in such consolidation or merger or (ii) transfer all or substantially all of its properties and assets to any Person, then, and in each case, proper provision shall be made prior to or concurrently with the consummation of such transaction so that the successors and assigns of the Surviving Corporation, as the case may be, shall, from and after the consummation of such transaction, honor the indemnification and other obligations set forth in this Section 5.6.

(d) The provisions of this Section 5.6 shall survive the consummation of the Merger and the Effective Time and (i) are intended to be for the benefit of, and shall be enforceable by, each D&O Indemnified Party, and his or her successors, heirs and representatives and shall be binding on all successors and assigns of the Surviving Corporation and (ii) are in addition to, and not in substitution for, any other rights to indemnification or contribution that any such Person may have by Contract or otherwise.

5.7 Acquisition Proposals.

(a) No Solicitation. The Company agrees that neither it nor any of its officers and directors shall, and that it shall cause its Employees, stockholders, agents and representatives (including any investment banker, attorney or accountant retained by it) not to (and shall not authorize any of them to) directly or indirectly: (i) solicit, initiate, knowingly encourage or knowingly facilitate any inquiries with respect to, or the making, submission or announcement of, any offer or proposal for an Acquisition Proposal; (ii) participate in any discussions or negotiations regarding, or furnish to any Person any nonpublic information with respect to, any Acquisition Proposal; (iii) engage in discussions with any Person with respect to any Acquisition Proposal, except as to the existence of these provisions; (iv) approve, endorse or recommend any Acquisition Proposal; or (v) enter into any letter of intent or similar document or any Contract, agreement or commitment contemplating any Acquisition Proposal or transaction contemplated thereby. The Company will immediately cease any and all existing activities, discussions or negotiations with any third parties conducted heretofore with respect to any Acquisition Proposal. For purposes of this Agreement, "Acquisition Proposal" means any inquiry, proposal or offer from any Person relating to any direct or indirect acquisition or purchase of a business that constitutes 50% or more of the net revenues or net income of the Company, or 50% or more of the aggregate equity interests of the Company, any tender offer or exchange offer that if consummated would result in any Person beneficially owning 50% or more of the aggregate equity interests of the Company, or any merger, consolidation, business combination, recapitalization, liquidation, dissolution or similar transaction involving the acquisition of 50% or more of the aggregate equity interests or assets of the Company, other than the transactions contemplated by this Agreement.

(b) Notification of Unsolicited Acquisition Proposals. As promptly as practicable after receipt of any Acquisition Proposal or any request for nonpublic information or inquiry which it reasonably believes would lead to an Acquisition Proposal, the Company shall, subject to any confidentiality obligations with the party existing as of September 1, 2018 making such request or inquiry, provide Parent with oral and written notice of the material terms and conditions of such Acquisition Proposal, request or inquiry, and the identity of the Person or group making any such Acquisition Proposal, request or inquiry.

5.8 Takeover Statute. If any Takeover Statute is or may become applicable to the Merger or the other transactions contemplated by this Agreement, each of Parent and the Company and its board of directors shall grant such approvals and take such actions as are necessary so that such transactions may be consummated as promptly as practicable on the terms contemplated by this Agreement or by the Merger and otherwise act to eliminate the effects of such statute or regulation on such transactions.

5.9 Stockholder Vote Concerning Code Section 280G. Prior to the Effective Time, the Company shall use reasonable efforts to: (a) seek a stockholder vote pursuant to the exemption contained in Section 280G(b)(5)(A)(ii) of the Code and the applicable regulations promulgated thereunder (the "280G Stockholder Vote"), and (b) cause, prior to the solicitation of any 280G Stockholder Vote, each Disqualified Individual to waive any of his or her payments in respect of the Merger that would not be deductible pursuant to Section 280G of the Code if the 280G Stockholder Vote fails the approval requirements set out in Section 280G(b)(5) of the Code.

5.10 Resignations. The Company shall deliver to Parent written resignations, effective as of the Effective Time, of the officers and directors of the Company, as set forth on Schedule 5.10, prior to the Closing.

5.11 Merger Sub Compliance. Parent shall cause Merger Sub to comply with all of Merger Sub's obligations under or relating to this Agreement. Merger Sub shall not engage in any business which is not in connection with the merger with and into the Company pursuant to this Agreement.

5.12 Tax Matters.

(a) Company Responsibility for Filing Tax Returns. The Company shall prepare and timely file or cause to be prepared and filed all Tax Returns related to the Company that are required to be filed prior to or on the Closing Date, and shall timely pay all Taxes that are due and payable on or before the Closing Date (taking into account any extensions). The Company shall prepare such Tax Returns in a manner consistent with its past practices, unless otherwise required by applicable Law.

(b) Parent Responsibility for Filing Tax Returns. Parent shall prepare and file or cause to be prepared and filed all Tax Returns required to be filed by or with respect to the Company that are due after the Closing Date. With respect to any Tax Returns for any taxable period ending on or prior to the Closing Date (a "Pre-Closing Taxable Period") and all Tax Returns for Pre-Closing Straddle Periods, Parent shall prepare such Tax Returns in a manner consistent with past practice of the Company, unless otherwise required by applicable Law. With respect to any such Tax Return that is an income or other material Tax Return, Parent shall (i) deliver a copy of such Tax Return to the Securityholders' Representative for its review and comment not less than ten (10) Business Days prior to the date on which such income or other material Tax Return is due to be filed (taking into account any applicable extensions) and, (ii) Parent shall consider in good faith any changes reasonably requested by the Securityholders' Representative. The preparation and filing of any Tax Return of the Company that is not for a Pre-Closing Taxable Period or Pre-Closing Straddle Period shall be exclusively within the control of Parent. Parent and the Company shall be entitled to reimbursement and indemnification pursuant to Article VIII and to deduct from the Escrow Funds and Earn-out Payments any Taxes due with respect to any such Tax Return that relate to Pre-Closing Taxable Periods or Pre-Closing Straddle Periods, but only to the extent such Taxes due were not taken into account as liabilities in computing the Closing Working Capital or as Transaction Expenses.

(c) Cooperation on Tax Matters. Parent, the Company and the Securityholders' Representative shall cooperate fully, as and to the extent reasonably requested by the other party, in connection with the filing of Tax Returns pursuant to this Section 5.12 and any audit, litigation or other proceeding with respect to Taxes. Such cooperation shall include the retention and (upon the other party's request) the provision of records and information that are reasonably relevant to any such audit, litigation or other proceeding and the making available of employees on a mutually convenient basis to provide additional information and explanation of any material provided hereunder. Parent, the Company, and the Securityholders' Representative agree (i) to retain all financial books and records with respect to Tax matters pertinent to the Company relating to any taxable period beginning before the Closing Date until the expiration of the statute of limitations (and, to the extent notified by Parent or the Securityholders' Representative, any extensions thereof) of the respective taxable periods, and to abide by all record retention agreements entered into with any taxing authority, and (ii) to give the other party reasonable written notice prior to transferring, destroying or discarding any such financial books and records and, if the other party so requests, the Company or the Securityholders' Representative, as the case may be, shall allow the other party to take possession of such financial books and records. Parent shall not, and shall not cause or permit the Surviving Corporation to, (i) make any Tax election that has any retroactive effect on any taxable period (or portion thereof) ending on or prior to the Closing Date without the prior written consent of the Securityholders' Representative (which consent shall not be unreasonably withheld, conditioned or delayed), (ii) amend or cause to be amended any Tax Return of the Company or Subsidiary of the Company for any taxable period (or portion thereof) ending on or prior to the Closing Date without the prior written consent of the Securityholders' Representative (which consent shall not be unreasonably withheld,

conditioned or delayed), or (iii) initiate discussions or examinations with a Tax authority or make any voluntary disclosures with respect to Taxes, or (iv) extend or waive any statute of limitations with respect to income Taxes or income Tax Returns of the Company, in each case, unless the foregoing unless such election or amendment would not increase the Company Securityholders' liability pursuant to this Agreement.

(d) Transfer Taxes. All transfer, documentary, sales, use, stamp, registration and other such Taxes and fees (including any penalties and interest) incurred in connection with the transactions contemplated by this Agreement ("Transfer Taxes") shall be borne equally by Parent and the Company Securityholders. Parent shall prepare and file or cause to be prepared and filed all Tax Returns with respect to such Transfer Taxes and shall pay such Transfer Taxes in the time and manner prescribed by Law (with a portion reimbursed by the Company Securityholders). The parties shall use commercially reasonable efforts to reduce any Transfer Taxes to the extent permitted by applicable Law.

(e) Tax Refunds. *Provided* that the related Taxes either have been paid by the Company on or prior to the Closing Date, or have been indemnified pursuant to Article VIII, any refunds of such Taxes or credits for overpayment of such Taxes that are actually received in cash, or actually reduce the cash Taxes required to be paid, by Parent, the Company, or the Surviving Corporation or any of their Subsidiaries shall be for the account of the Company Stakeholders. Parent will, and will cause the Surviving Corporation or any of its Affiliates to, take all commercially reasonable actions to obtain such refunds and credits, and shall pay over to the Company Stakeholders any such refund or the amount of any such credit (net of any income Taxes of the Company, Parent or any of its Subsidiaries attributable to such refund or credit) within ten (10) Business Days after receipt.

(f) Straddle Period. In the case of Taxes that are payable with respect to a taxable period that begins on or before and ends after the Closing Date, the portion of any such Taxes that are treated as Taxes of the Company for the portion of such taxable period ending on and including the Closing Date (each such period, a "Pre-Closing Straddle Period") for purposes of this Agreement shall be: (i) in the case of Taxes (A) based upon, or related to, income, receipts, profits, wages, capital or net worth, (B) imposed in connection with the sale, transfer or assignment of property, or (C) required to be withheld, deemed equal to the amount which would be payable if the taxable year ended with the Closing Date, except that exemptions, allowances and deductions that are calculated on an annual basis (including depreciation and amortization deductions) shall be allocated on a per diem basis; and (ii) in the case of other Taxes, deemed to be the amount of such Taxes for the entire period multiplied by a fraction the numerator of which is the number of days in the period ending on the Closing Date and the denominator of which is the number of days in the entire period.

5.13 Securityholders' Representative.

(a) By virtue of the approval and adoption of this Agreement by the requisite consent of the Company Stockholders and, if applicable, specific authorization set forth in a Joinder Agreement, each of the Company Securityholders (other than such Company Stockholders, if any, who have perfected dissenters' or appraisal rights under Delaware Law) shall be deemed to have agreed to appoint Fortis Advisors LLC as the Securityholders' Representative as the exclusive agent and attorney-in-fact for and on behalf of the Company Securityholders to (i) amend, modify, or supplement this Agreement following the Effective Time as contemplated in Section 9.11, (ii) give and receive notices and communications, (iii) agree to, negotiate, enter into settlements and compromises of, and demand arbitration and comply with orders of courts and awards of arbitrators with respect to indemnification claims made by Parent Indemnified Persons hereunder (including matters with respect to Earn-out Payments), (iv) to assert, negotiate, enter into settlements and compromises of, and demand arbitration and comply with orders of courts and awards of arbitrators with respect to, any other claim by any Parent Indemnified Person against any Company Securityholder or by any such Company Securityholder against any Parent Indemnified Person or any dispute between any Parent Indemnified Person and any such Company Securityholder, in each case relating to this Agreement or the transactions contemplated hereby, and (v) to take all other actions that are either (x) necessary or appropriate in the judgment of the Securityholders' Representative for the accomplishment of the foregoing or otherwise in connection with this Agreement, the Escrow Agreement and the Securityholders' Representative Engagement Agreement or (y) specifically mandated by the terms of this Agreement. Notwithstanding the foregoing, the Securityholders' Representative shall have no obligation to act on behalf of the Company Securityholders, except as expressly provided herein, in the Escrow Agreement and in the Securityholders' Representative Engagement Agreement, and for purposes of clarity, there are no obligations of the Securityholders' Representative in any ancillary agreement, schedule, exhibit or the Disclosure Schedule. Notwithstanding the foregoing, the Securityholders' Representative may resign at any time by providing written notice of its intent to resign to the Company Securityholders, which resignation shall be effective upon the earlier of (A) thirty (30) calendar days following delivery of such written notice or (B) the appointment of a successor by the holders of at least a majority of the issued and outstanding shares of Company Capital Stock immediately prior to the Effective Time. The immunities and rights to indemnification shall survive the resignation or removal of the Securityholders' Representative or any member of the Advisory Group and the Closing and/or any termination of this Agreement and the Escrow Agreement. No bond shall be required of the Securityholders' Representative.

(b) Certain Company Securityholders have entered into an engagement agreement (the "Securityholders' Representative Engagement Agreement") with the Securityholders' Representative to provide direction to the Securityholders' Representative in connection with its services under this Agreement, the Escrow Agreement and the Securityholders' Representative Engagement Agreement (such Company Securityholders, including their individual representatives, collectively hereinafter referred to as the "Advisory Group"). Neither the Securityholders' Representative nor its members, managers, directors, officers, contractors, agents and employees nor any member of the Advisory Group (collectively, the "Securityholders' Representative Group"), shall be liable for any act done or omitted hereunder, under the Escrow Agreement or under the Securityholders' Representative Engagement Agreement as Securityholders' Representative while acting in good faith, even if such act or omission constitutes negligence on the part of the Securityholders' Representative. The Securityholders' Representative shall only have the duties expressly stated in this Agreement and shall have no other duty, express or implied. The Securityholders' Representative may engage attorneys, accountants and other professionals and experts. The Securityholders' Representative may in good faith rely conclusively upon information, reports, statements and opinions prepared or presented by such professionals, and any action taken by the Securityholders' Representative based on such reliance shall be deemed conclusively to have been taken in good faith. The Company Securityholders shall indemnify the Securityholders' Representative Group and hold the Securityholders' Representative Group harmless against any loss, liability, damage, claim, fine, judgment, amount paid in settlement, fee or expense incurred on the part of the Securityholders' Representative (so long as the Securityholders' Representative was acting in good faith in connection therewith) and arising out of or in connection with the acceptance or administration of the Securityholders' Representative's duties hereunder, including the reasonable fees and expenses of any legal counsel and other skilled professionals retained by the Securityholders' Representative and in connection with seeking recovery from insurers ("Securityholders' Representative Expenses"). The Securityholders' Representative shall have the right to satisfy Securityholders' Representative Expenses first, from the Expense Fund Distribution Amount and prior to any distribution to the Company Stakeholders of the Expense Fund Distribution Amount, second, from any distribution of the Escrow Funds otherwise distributable to the Company Securityholders at the time of distribution, and third, directly from the Company Securityholders. The Company Securityholders acknowledge that the Securityholders' Representative shall not be required to expend or risk its own funds or otherwise incur any financial liability in the exercise or performance of any of its powers, rights, duties or privileges or pursuant to this Agreement, the Escrow Agreement or the transactions contemplated hereby or thereby. Furthermore, the Securityholders' Representative shall not be required to take any action unless the Securityholders' Representative has been provided with funds, security or indemnities which, in its determination, are sufficient to protect the Securityholders' Representative against the costs, expenses and liabilities which may be incurred by the Securityholders' Representative in performing such actions. A decision, act, consent or instruction of the Securityholders' Representative, including an amendment, extension or waiver of this Agreement pursuant to Section 9.11

hereof, shall constitute a decision of the Company Securityholders and shall be final, binding and conclusive upon the Company Securityholders.

(c) All such decisions of the Securityholders' Representative shall be made by written consent.

(d) Parent shall be entitled to deal exclusively with the Securityholders' Representative on all matters relating to this Agreement (including Article VIII) for which the Securityholders' Representative has authority hereunder and shall be entitled to rely conclusively (without further evidence of any kind whatsoever) on any document executed or purported to be executed on behalf of any Company Securityholder by the Securityholders' Representative, and on any other action taken or purported to be taken on behalf of any Company Securityholder by the Securityholders' Representative, as being fully binding upon such Person. Notices or communications to or from the Securityholders' Representative shall constitute notice to or from each of the Company Securityholders. Any decision or action by the Securityholders' Representative hereunder, including any agreement between the Securityholders' Representative and Parent relating to the defense, payment or settlement of any claims for indemnification hereunder, shall constitute a decision or action of all Company Securityholders and shall be final, binding and conclusive upon each such Person and their successors as if expressly ratified and confirmed in writing by such Person. No Company Securityholder shall have the right to object to, dissent from, protest or otherwise contest the same. The powers, immunities and rights to indemnification granted to the Securityholders' Representative Group hereunder: (i) are coupled with an interest and shall be irrevocable and survive the death, incompetence, bankruptcy or liquidation of any Company Securityholder and shall be binding on any successor thereto, and (ii) shall survive the delivery of an assignment by any Company Securityholder of the whole or any fraction of his, her or its interest in the Escrow Funds.

(e) The Securityholders' Representative shall be entitled to: (i) rely upon the Consideration Spreadsheet, (ii) rely upon any signature believed by it to be genuine, and (iii) reasonably assume that a signatory has proper authorization to sign on behalf of the applicable Company Securityholder or other party.

5.14 R&W Policy. Notwithstanding anything contained herein to the contrary, Parent and Merger Sub (on behalf of themselves and the other Parent Indemnified Persons) acknowledge and agree that (a) the binding of the R&W Policy is expressly not a condition precedent to the obligations of Parent and Merger Sub to consummate the transactions contemplated under this Agreement, (b) if the R&W Policy is not bound by the Effective Time, the Company Securityholders' indemnity obligations hereunder shall not be increased, changed or otherwise affected by the fact that the R&W Policy is not bound, and (c) if the R&W Policy is not bound by the Effective Time, all references to the R&W Policy and similar related terms and definitions shall not be applicable or have any relevance hereunder.

5.15 Efforts to Consummate.

(a) Subject to the terms and conditions herein provided, from the date hereof until the earlier of (i) the termination of this Agreement and (ii) the Closing Date, the Company shall use commercially reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things reasonably necessary, proper or advisable to consummate and make effective as promptly as practicable the transactions contemplated by this Agreement.

(b) Subject to the terms and conditions herein provided (including Section 5.3(d)), from the date hereof until the earlier of (i) the termination of this Agreement and (ii) the Closing Date, Parent and Merger Sub shall use commercially reasonable efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things reasonably necessary, proper or advisable to consummate and make effective as promptly as practicable the transactions contemplated by this Agreement.

ARTICLE VI
CONDITIONS TO THE MERGER

6.1 Conditions to Obligation of Each Party to Effect the Merger. The respective obligations of Parent and Merger Sub, on the one hand, and the Company, on the other hand, to effect the Merger and otherwise to consummate the transactions contemplated by this Agreement shall be subject to the satisfaction at or prior to the Closing of each of the following conditions (it being understood that any one or more of the following conditions may be waived by the written agreement of Parent and the Company, unless prohibited by applicable Law):

(a) Litigation. No Governmental Entity of competent jurisdiction shall have enacted, issued, promulgated or entered any judgment, order, injunction or decree (whether temporary, preliminary or permanent) that is in effect and restrains, enjoins or otherwise prohibits the consummation of the Merger.

(b) Antitrust Approvals. All waiting periods (and extensions thereof) applicable to the transactions contemplated by this Agreement (including the Merger) under the HSR Act shall have expired or been terminated and all other antitrust, competition or merger control or regulatory consents set forth on Schedule 6.1(b) hereto, if any, shall have been received (or been deemed to have been received by virtue of the expiration or termination of any applicable waiting period).

(c) Company Stockholder Approval. This Agreement shall have been adopted by the Required Stockholder Vote of the Company Stockholders in accordance with Delaware Law and the Company Organizational Documents.

6.2 Additional Conditions to the Obligations of Parent and Merger Sub. The obligations of Parent and Merger Sub to effect the Merger and otherwise to consummate the transactions contemplated by this Agreement shall be subject to the satisfaction at or prior to the Closing of each of the following conditions (it being understood that any one or more of the following conditions may be waived by the written agreement of Parent):

(a) Representations and Warranties. All representations and warranties of the Company (other than the Company Fundamental Representations) contained in this Agreement, the Ancillary Documents to which the Company is a party and any certificate of the Company required to be delivered by the Company hereunder shall be true and correct in all material respects (without giving effect to any limitation as to "materiality" or "Company Material Adverse Effect" set forth therein) at and as of the Closing Date as though made at and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case only as of such date). The Company Fundamental Representations shall be true and correct in all respects at and as of the Closing Date as though made at and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case only as of such date), subject to only de minimis exceptions for the representations and warranties of the Company in Section 2.5 of this Agreement.

(b) Performance of Covenants. The Company shall have complied with and performed in all material respects all covenants under this Agreement required to be complied with or performed by the Company at or prior to the Closing.

(c) Certificate of Officer. Parent and Merger Sub shall have received a certificate executed on behalf of the Company by an officer of the Company, to the effect that the conditions set forth in Sections 6.2(a) and 6.2(b) have been satisfied and which shall include attached thereto an updated version of Section 2.5 of the Disclosure Schedule to reflect the information contained in such section as of the Effective Time (to the extent that there are any changes from such information set forth in Section 2.5 of the Disclosure Schedule as delivered to Parent on the Agreement Date).

(d) No Company Material Adverse Effect. Following the Agreement Date, no Company Material Adverse Effect shall have occurred and be continuing.

(e) Dissenting Stockholders. Holders of no more than three percent (3%) of the outstanding shares of Company Capital Stock, on an as-converted basis, as of immediately prior to the Effective Time, in the aggregate, shall have exercised, or remain entitled to exercise, statutory appraisal rights pursuant to Section 262 of Delaware Law with respect to such shares of Company Capital Stock.

(f) Joinder Agreements. Parent shall have received a duly executed Joinder Agreement from Company Securityholders holding at least ninety-five percent (95%) of the outstanding shares of Company Capital Stock, on an as-converted and fully diluted basis, as of immediately prior to the Effective Time.

(g) Closing Deliverables. The Company shall have delivered (or caused to be delivered) or shall deliver (or caused to be delivered) at the Closing to Parent the following:

(i) the Escrow Agreement duly executed by the Securityholders' Representative;

(ii) resignations of the directors and officers of the Company identified in Schedule 5.10;

(iii) a certificate of an officer of the Company certifying that (A) attached thereto are true and complete copies of the Company Organizational Documents and (B) the names and signature of the officers of the Company authorized to sign this Agreement, the Ancillary Documents and the other documents to be delivered hereunder and thereunder;

(iv) a good standing certificate for the Company from the Secretary of State of the State of Delaware;

(v) at least one (1) Business Day prior to the Closing, the Closing Transaction Expenses Certificate;

(vi) at least one (1) Business Day prior to the Closing, the Closing Indebtedness Certificate;

(vii) the Estimated Closing Working Capital Statement;

(viii) the Consideration Spreadsheet;

(ix) a statement conforming to the requirements of Treasury Regulations Section 1.1445-2(c)(3) and the notification to the IRS required under Treasury Regulations Section 1.897-2(h)(2); and

(x) Payoff letters from each holder of Indebtedness of the Company (other than any such Indebtedness under clause (b) or (e) and (g), as (g) relates to (b) or (e) of the definition of "Indebtedness"), including the holders set forth on Schedule 6.2(g), in respect of the Indebtedness owed by the Company to such holder as of immediately prior to the Closing containing an irrevocable and unconditional commitment to remove any Lien on the Assets of the Company upon payment in connection with the Closing of the amount set forth in such payoff letter or written evidence of the release of any Lien affecting the Assets.

6.3 Additional Conditions to Obligation of the Company. The obligation of the Company to effect the Merger and to otherwise consummate the transactions contemplated by this Agreement shall be subject to the satisfaction at or prior to the Closing of each of the following conditions (it being understood that any one or more of the following conditions may be waived by the written agreement of the Company):

(a) Representations and Warranties. All representations and warranties of Parent (other than the Parent Fundamental Representations) contained in this Agreement, the Ancillary Documents to which Parent is a party and any certificate of Parent required to be delivered by Parent hereunder shall be true and correct in all material respects (without giving effect to any limitation as to "materiality" set forth therein) at and as of the Closing Date as though made at and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case only as of such date). The Parent Fundamental Representations shall be true and correct in all respects at and as of the Closing Date as though made at and as of the Closing Date (except to the extent expressly made as of an earlier date, in which case only as of such date).

(b) Performance of Covenants. Parent and Merger Sub shall have each complied with and performed in all material respects all of their respective covenants under this Agreement required to be complied with or performed by either of them at or prior to the Closing.

(c) Certificate of Officers. The Company shall have received a certificate executed on behalf of each of Parent and Merger Sub by an officer of Parent and Merger Sub, respectively, to the effect that the conditions set forth in Sections 6.3(a) and 6.3(b) have been satisfied.

(d) Closing Deliverables. Parent shall have delivered or shall deliver at the Closing to the Company (or other applicable Person set forth below) the following:

(i) the Escrow Agreement duly executed by Parent;

(ii) payment to the Paying Agent, by wire transfer of immediately available funds, of an amount equal to the applicable portion of the Closing Merger Consideration payable to the Company Stockholders hereunder in respect of their Company Capital Stock;

(iii) payment to the Company, by wire transfer of immediately available funds, of an amount equal to the applicable portion of the Closing Merger Consideration payable to the Company Optionholders and Company Warrantholders in respect of their Company Options and Company Warrants, and the aggregate amount of Change of Control Payments;

(iv) payment to the Escrow Agent, by wire transfer of immediately available funds, of the Indemnification Escrow Amount;

(v) payment to the Escrow Agent, by wire transfer of immediately available funds, of the Post-Closing Adjustment Escrow Amount;

(vi) payment to parties to this Agreement or third parties, as applicable, by wire transfer of immediately available funds, of that amount of money due and owing from the Company to such third parties as Transaction Expenses as set forth on the Closing Transaction Expenses Certificate (except for the payment of the Change of Control Payment which is addressed above in clause (iii)); and

(viii) payment to holders of outstanding Indebtedness of the Company, if any, by wire transfer of immediately available funds, of that amount of money due and owing from the Company to such holders of outstanding Indebtedness as set forth on the Closing Indebtedness Certificate.

ARTICLE VII
TERMINATION

7.1 Termination. This Agreement may be terminated at any time prior to the Closing (with respect to Sections 7.1(b) through (f), by notice from the terminating party to the other party setting forth a brief description of the basis for termination):

(a) by the mutual written consent of Parent and the Company;

(b) by either Parent or the Company, if the Merger shall not have been consummated by 11:59 P.M. (pacific time) on the date that is the sixtieth (60^{th}) day following the Agreement Date; *provided*, *however*, that the right to terminate this Agreement under this Section 7.1(b) shall not be available to any party whose action or failure to act (including the failure to act in compliance with Section 5.3) has been a principal cause of or resulted in the failure of the Merger to occur on or before such date and such action or failure to act constitutes a breach of this Agreement;

(c) by Parent, if this Agreement has not been adopted by the Required Stockholder Vote within the later of (i) twenty-four (24) hours or (ii) one (1) full Business Day of the execution and delivery of this Agreement; *provided*, *however*, that the right to terminate this Agreement pursuant to this Section 7.1(c) shall terminate upon the adoption of this Agreement by the Required Stockholder Vote;

(d) by either Parent or the Company, if a Governmental Entity of competent jurisdiction shall have enacted, issued, promulgated or entered a nonappealable final and permanent judgment, order, injunction or decree that is in effect and restrains, enjoins or otherwise prohibits consummation of the Merger;

(e) by the Company, if (i) there is an inaccuracy in any of the representations or warranties of Parent or Merger Sub in this Agreement such that the condition set forth in Section 6.3(a) would not be satisfied, or there has been a breach by Parent or Merger Sub of any of their respective covenants in this Agreement such that the condition set forth in Section 6.3(b) would not be satisfied, (ii) the Company shall have delivered to Parent a written notice of such inaccuracy or breach, (iii) at least ten (10) days shall have elapsed since the delivery of such notice without such inaccuracy or breach having been cured and (iv) the Company is not in material breach of this Agreement; and

(f) by Parent, if (i) there is an inaccuracy in any of the representations or warranties of the Company in this Agreement such that the condition set forth in Section 6.2(a) would not be satisfied, or there has been a breach by the Company of any of its covenants in this Agreement such that the condition set forth in Section 6.2(b) would not be satisfied, (ii) Parent shall have delivered to the Company a written notice of such inaccuracy or breach, (iii) at least ten (10) days shall have elapsed since the delivery of such notice without such inaccuracy or breach having been cured and (iv) neither Parent nor Merger Sub is in material breach of this Agreement.

7.2 Effect of Termination. In the event of termination of this Agreement as provided in Section 7.1, this Agreement shall be of no further force or effect, and there shall be no liability on the part of Parent, the Company, Merger Sub or their respective officers, directors or stockholders or the Securityholders' Representative, except (a) that the provisions of Section 5.1(a), Section 5.2, this Section 7.2 and Article IX shall remain in full force and effect and survive any termination of this Agreement and (b) that nothing herein shall relieve any party or parties hereto, as applicable, from any liability or damages resulting from any willful and knowing breach prior to such termination, in which case the aggrieved party shall be entitled to all remedies available at law or in equity. In addition to the foregoing, no termination of this Agreement shall affect the obligations of the parties hereto set forth in the Confidentiality Agreement, all of which obligations shall survive termination of this Agreement in accordance with their terms.

ARTICLE VIII
INDEMNIFICATIONS; SURVIVAL

8.1 Survival of Representations, Warranties and Covenants. All representations, warranties and covenants contained in this Agreement shall survive the Closing and remain in full force and effect for a period of eighteen (18) months following the Closing Date, other than with respect to (a) the Company Fundamental Representations and the Parent Fundamental Representations, which shall survive the Closing and remain in full force and effect for a period of six (6) years following the Closing, (b) the representations and warranties of the Company in Section 2.10 (other than Section 2.10(c) which constitutes a Company Fundamental Representation) which shall survive the Closing and remain in full force and effect for a period of four

(4) years following the Closing, and (c) each covenant or agreement contained in this Agreement that is to be performed on or following the Closing Date which shall survive the Closing and remain in full force and effect until such covenant or agreement has been fully performed or fulfilled in accordance with its terms (the respective expiration dates for the survival of the representations and warranties and covenants and agreements shall be referred to herein as the "Expiration Date"), except that any representation, warranty, covenant or agreement that would otherwise terminate in accordance with clause (a), (b) or (c) will continue to survive if a Claim Notice shall have been timely given to the Indemnifying Person by the Indemnified Person (which if the Company Securityholders are the Indemnifying Persons, the Indemnified Person shall provide such Claim Notice to the Securityholders' Representative) on or prior to such applicable Expiration Date, until the related claim for indemnification has been satisfied or otherwise resolved as provided in this Article VIII. Claims made under the R&W Policy are not subject to the survival limitations set forth in this Section 8.1; *provided that* this sentence does not, and is not intended to, increase (or adversely affect) the indemnification obligations of the Company Securityholders hereunder for any reason. Parent further acknowledges and agrees that the terms of Section 5.14 shall apply to this Article VIII.

8.2 Indemnification by the Company Securityholders. Subject to the terms, conditions and limitations of this Article VIII, following the Closing, the Company Securityholders shall, on a several (and not joint and several) basis (based on their relative Indemnification Pro Rata Portion), indemnify Parent and its Affiliates, and their respective successors, assigns, officers, directors, stockholders, employees and agents (collectively, the "Parent Indemnified Persons" and each, a "Parent Indemnified Person") against, and hold them harmless from, any Loss suffered or incurred by any such Parent Indemnified Person arising or resulting from or based upon:

(a) any inaccuracy in or breach of any representation or warranty of the Company contained in this Agreement or in any certificate delivered by the Company hereunder;

(b) any breach or non-fulfillment of any covenant, agreement or obligation of the Company contained in this Agreement prior to Closing;

(c) any claim made by any Company Stakeholder or any other alleged holder of any Company Capital Stock or rights to acquire Company Capital Stock relating to such Person's rights with respect to the Merger Consideration, or the calculations and determinations set forth on the Consideration Spreadsheet;

(d) any amounts (including costs and attorneys' fees) paid to the holders of Dissenting Stockholders, including any interest required to be paid thereon, that are in excess of what such Dissenting Stockholders would have received hereunder in respect of such Dissenting Stockholders' portion of Merger Consideration had such Dissenting Stockholders not been Dissenting Stockholders and all costs, expenses and other Losses associated with any Actions;

(e) any Transaction Expenses or Indebtedness of the Company, in either case, outstanding as of the Closing to the extent not paid or satisfied by the Company at or prior to Closing, or if paid by Parent or Merger Sub in connection with the Closing, to the extent not deducted in the determination of Closing Merger Consideration;

(f) any and all Taxes of (i) the Company or relating to the business of the Company for all Pre-Closing Taxable Periods and Pre-Closing Straddle Periods, (ii) any member of an affiliated, consolidated, combined, or unitary group of which the Company (or any predecessor of the Company) is or was a member on or prior to the Closing Date, including pursuant to Treasury Regulation §1.1502-6 or any analogous or similar state, local, or non-U.S. Law or regulation for such Tax periods, and (iii) any Person (other than the Company) imposed on the Company as a transferee or successor, by Contract (other than Commercial Contracts) or pursuant to any law, rule or regulation to the extent such imposition is a result of an event or transaction occurring before the Closing, *provided that*, Company Securityholders shall have no obligation to reimburse or indemnify any Parent Indemnified Person against any Losses or other adverse consequences consisting of, or relating to, (x) Taxes included as a Current Liability in the calculation of Closing Working Capital and (y) Taxes resulting from any transactions occurring on the Closing Date after the Closing outside the ordinary course of business (other than as explicitly contemplated by this Agreement);

(g) any fraud or willful misconduct with respect to this Agreement or any certificates or other instruments required to be delivered pursuant to this Agreement, in each case, on the part of the Company at or prior to Closing;

(h) any loss of deduction by Parent relating to or arising out of any "excess parachute payments" within the meaning of Section 280G of Code, solely as a result of payments in respect of the Merger;

(i) any failure of the Consideration Spreadsheet to be accurate and complete in all respects, and the distribution of Merger Consideration to the Company Stakeholders in accordance therewith to be in full compliance with the

Company Organizational Documents, the Company Warrants and Company Options, and all instruments related to Change of Control Payments; and

(j) any failure of the Company to comply with any applicable open payments or "sunshine provisions" of the Patient Protection and Affordable Health Care Act or any other applicable state Law.

8.3 Indemnification by Parent. Subject to the terms, conditions and limitations of this Article VIII, following the Closing, Parent shall indemnify the Company Securityholders and their respective successors, assigns, officers, directors, stockholders, employees and agents (collectively, the "Company Securityholder Indemnified Persons" and each, a "Company Securityholder Indemnified Person"), against, and hold them harmless from, any Loss suffered or incurred by any such Company Securityholder Indemnified Person arising or resulting from or based upon: (a) any inaccuracy in or breach of any representation or warranty of Parent or Merger Sub contained in this Agreement or in any certificate delivered by Parent hereunder; (b) any breach or non-fulfillment of any covenant, agreement or obligations of Parent or Merger Sub contained in this Agreement; and (c) any fraud or willful misconduct with respect to this Agreement or any certificates or other instruments required to be delivered pursuant to this Agreement, in each case, on the part of Parent.

8.4 Indemnity Limitations.

(a) Notwithstanding anything to the contrary contained in this Agreement:

(i) Parent Indemnified Persons shall not be entitled to indemnification pursuant to Section 8.2(a) unless and until the aggregate of all Losses arising from indemnity claims made by Parent Indemnified Persons hereunder exceeds Six Hundred and Seventy Five Thousand Dollars ($675,000) (the "Basket Amount"), and if the aggregate amount of such indemnifiable Losses reaches the Basket Amount, Parent Indemnified Persons shall be entitled to seek indemnity recourse for such indemnifiable Losses in excess of the Basket Amount; *provided that*, the foregoing indemnification limitations shall not apply to indemnity claims made by Parent Indemnified Persons pursuant to Section 8.2(a) with respect to or arising from Company Fundamental Representations. For the avoidance of doubt, the foregoing indemnification limitations shall not apply to indemnity claims made by Parent Indemnified Persons pursuant to Sections 8.2(b)-(j), or (B) any Parent Indemnified Persons' rights in respect of the R&W Policy (*provided that* this clause (B) does not, and is not intended, to increase (or adversely affect) the indemnification obligations of the Company Securityholders hereunder for any reason).

(ii) Parent, on behalf of itself and the other Parent Indemnified Persons, agrees that the Indemnification Escrow Fund, the R&W Policy, and its Offset Rights shall be the sole source of recourse for Parent Indemnified Persons hereunder; *provided that*, the foregoing indemnification limitation shall not apply to (A) indemnity claims made by Parent Indemnified Persons pursuant to Section 8.2(a) with respect to or arising from Company Fundamental Representations, or (B) indemnity claims made by Parent Indemnified Persons pursuant to Sections 8.2(b)-(j).

(iii) The aggregate Liability of the Company Securityholders hereunder shall, in no event, exceed the Merger Consideration actually received by the Company Securityholders (the "Cap") and Parent, on behalf of itself and the other Parent Indemnified Persons, agrees not to seek, and shall not be entitled to recover, any Losses or other payments pursuant to claims made by Parent Indemnified Persons in excess of the Cap, subject to the other terms, conditions and limitations set forth herein.

(iv) Any Losses finally determined to be owed to a Parent Indemnified Person hereunder shall be satisfied in the following order: (i) first, from the Indemnification Escrow Fund, but only up to the R&W Policy Retention Amount; (ii) second, from the R&W Policy, up to the R&W Policy Coverage Limit (*provided that*, to the extent that any Loss constitutes a Policy Excluded Loss, a Parent Indemnified Person shall not be obligated to pursue recourse from the R&W Policy under this clause (ii)); (iii) third, from the amount then remaining in the Indemnification Escrow Fund; (iv) fourth, from exercise of Parent's Offset Rights; and (v) fifth, (A) with respect to indemnity claims made by Parent Indemnified Persons pursuant to Section 8.2(a) with respect to or arising from Company Fundamental Representations or (B) indemnity claims made by Parent Indemnified Persons pursuant to Sections 8.2(b)-(j), from the Company Securityholders on a several (and not joint and several) basis (based on their relative Indemnification Pro Rata Portion), subject to the terms, conditions and limitations contained herein.

(v) Parent Indemnified Persons shall not be entitled to indemnification with respect to Losses relating to: (A) any Taxes attributable to a taxable period or portion thereof beginning after the Closing Date, (B) the amount, value or condition of, or any limitations on, any Tax asset or attribute of the Company (e.g., net operating loss or Tax credit), including the ability of any Parent Indemnified Person to utilize such Tax asset or attribute, or (C) any Taxes arising from or in connection with actions taken by a Parent Indemnified Person (including the Company after the Closing) at any time after the Closing (including on the Closing Date).

(b) Notwithstanding anything to the contrary contained in this Agreement, Company Securityholder Indemnified Persons shall not be entitled to indemnification pursuant to Section 8.4(a) unless and until the aggregate of all Losses arising from indemnity claims made by Company Securityholder Indemnified Persons hereunder exceeds the Basket Amount, and if the aggregate amount of such indemnifiable Losses reaches the Basket Amount, the Company Securityholder Indemnified Persons shall be entitled to seek indemnity recourse for such indemnifiable Losses in excess of the Basket Amount; *provided that*, the foregoing indemnification limitations shall not apply to indemnity claims made by Company Securityholder Indemnified Persons pursuant to Section 8.3(a) with respect to Parent Fundamental Representations.

(c) The amount of any Loss for which indemnification is provided under this Article VIII shall be net of any amounts actually recovered by the Indemnified Person from any third party (including insurance proceeds) as a result of the facts or circumstances giving rise to the Losses.

(d The amount of any Loss for which indemnification is provided under this Article VIII shall be net of any amounts actually recovered by Parent Indemnified Persons or Company Securityholder Indemnified Persons, as applicable, from any insurance policies (including under the R&W Policy) as a result of the facts or circumstances giving rise to the Losses.

(e) Each Indemnified Person shall use its commercially reasonable efforts to mitigate any Losses for which it is entitled to indemnification under this Article VIII, which shall include using commercially reasonable efforts to pursue recovering any proceeds reasonably available under insurance policies.

(f) Any Liability for indemnification under this Article VIII shall be determined without duplication of recovery by reason of the set of facts giving rise to such Liability constituting a breach of more than one representation, warranty, covenant or undertaking, or one or more rights to indemnification.

(g) For purposes of determining the amount of any Losses arising out of, relating to or resulting from any failure of any representation or warranty to be true and correct, and for purposes of determining whether or not such failure has occurred, such representations and warranties shall be considered without giving effect to any limitation or qualifications as to "materiality," "Company Material Adverse Effect," or any other derivation of the word "material."

(h) The indemnities provided under this Article VIII are intended only for the Indemnified Persons and are in no way intended to, nor shall they, constitute an agreement for the benefit of, or be enforceable by, any other Person.

8.5 Procedures Relating to Indemnification.

(a) Direct Claims.

(i) An Indemnified Person seeking indemnification on account of a Loss which does not result from a Third-Party Claim (a "Direct Claim") shall be asserted by such Indemnified Person giving reasonably prompt written notice (a "Claim Notice") to the Indemnifying Person (which if the Company Securityholders are the Indemnifying Persons pursuant to Section 8.2, the Indemnified Person shall provide such Claim Notice to the Securityholders' Representative for all purposes of this Article VIII), and such notice shall contain (1) a reasonable description of the Direct Claim to the extent then known, (2) the estimated amount, if reasonably practicable and to the extent then known, of any Loss incurred or reasonably expected to be incurred by such Indemnified Person, and (3) a demand for payment of such Loss; *provided that* failure to give such notification shall not relieve the Indemnifying Person of its indemnification obligations or otherwise affect the indemnification provided hereunder except to the extent, and only to the extent that, the Indemnifying Person shall have been materially prejudiced as a result of such failure.

(ii) The Securityholders' Representative (if the Indemnifying Persons are the Company Securityholders pursuant to Section 8.2) or Parent (if the Indemnifying Persons are Parent pursuant to Section 8.3) may in good faith, at any time on or before the tenth (10^{th}) Business Day following its receipt of a Claim Notice (the "Objection Period"), object to the claim made in such Claim Notice by delivering written notice to the Indemnified Person and the Escrow Agent (a "Claim Objection"). The Claim Objection shall set forth in reasonable detail the good faith reasons for the objection to such claim for indemnification, and the amount of any claimed Loss which is disputed. If the Securityholders' Representative (if the Indemnifying Persons are the Company Securityholders pursuant to Section 8.2) or Parent (if the Indemnifying Persons are Parent pursuant to Section 8.3), as applicable, does not timely deliver a Claim Objection, or delivers a Claim Objection that does not object to all of the Losses set forth in the Claim Notice, the Indemnifying Persons shall be deemed to have accepted and agreed with all or such portion of the claim and shall be conclusively deemed to have consented to the recovery by the Indemnified Person of all or such portion of the Losses specified in the Claim Notice. If the Securityholders' Representative (if the Indemnifying Persons are the Company Securityholders pursuant to Section 8.2) or Parent (if the Indemnifying Persons are Parent pursuant to Section 8.3), timely delivers a Claim Objection, Parent and the Securityholders' Representative, as applicable, shall attempt in good faith to agree upon the rights of the respective parties with respect to the disputed items of Losses and if the parties are not able to fully resolve all such differences within thirty (30) days from the applicable party's receipt of a Claim Objection, Parent or the Securityholders' Representative, as applicable, shall have the right to pursue such remedies or legal recourse as may be available to the Indemnified Person on the terms and subject to the provisions of this Agreement.

(b) Third-Party Claims. If any Indemnified Person receives notice of the assertion or commencement of any Action made or brought by any Person who is not a party to this Agreement or an Affiliate of a party to this Agreement or a representative of the foregoing (a "**Third-Party Claim**") against such Indemnified Person with respect to which the Indemnifying Person is obligated to provide indemnification under this Agreement, the Indemnified Person shall give the Indemnifying Person (or if the Company Securityholders are the Indemnifying Persons, the Securityholders' Representative) reasonably prompt written notice thereof, but in any event not later than thirty (30) calendar days after receipt of such notice of such Third-Party Claim. The

failure to give such prompt written notice shall not, however, relieve the Indemnifying Person of its indemnification obligations or otherwise affect the indemnification provided hereunder except to the extent, and only to the extent that, the Indemnifying Person shall have been materially prejudiced as a result of such failure. Such notice by the Indemnified Person shall describe the Third-Party Claim in reasonable detail (to the extent then known), and shall indicate the estimated amount, if reasonably practicable and to the extent then known, of the Loss that has been or may be sustained by the Indemnified Person. The Indemnifying Person (or if the Company Securityholders are the Indemnifying Persons, the Securityholders' Representative) shall have the right to participate in, or by giving written notice to the Indemnified Person, which notice shall include an admission of the Indemnifying Persons' indemnification obligation under this Articles VII with respect to such Third-Party Claim, to assume the defense of any Third-Party Claim at the Indemnifying Person's (or if the Company Securityholders are the Indemnifying Persons, the Securityholders' Representative's) expense and by the counsel of the Indemnifying Person (or if the Company Securityholders are the Indemnifying Persons, the Securityholders' Representative), and the Indemnified Person shall cooperate in good faith in such defense; *provided that* if the Indemnifying Person is the Company Securityholders, the Securityholders' Representative shall not have the right to defend or direct the defense of any such Third-Party Claim if: (i) such Third-Party Claim related to or arises in connection with any criminal proceeding; (ii) the Third-Party Claim is asserted directly by or on behalf of a Person that is a supplier or customer of the Company; (iii) the Third-Party Claim seeks an injunction, equitable relief, or other non-monetary relief against the Indemnified Persons; (iv) the amount of Losses alleged in such Third-Party Claim is in excess of the amount then remaining under the Cap at the time Parent Indemnified Person gives the Securityholders' Representative notice of such Third-Party Claim, after taking into account the sum of all Losses and expenses previously recovered by Parent Indemnified Persons hereunder plus all Losses and expenses specified in any then unresolved claims made by Parent Indemnified Persons pursuant to this Article VIII, or the Indemnifying Person failed or is failing to use diligent, reasonable and good faith efforts to defend such Third-Party Claim; or (v) a Parent Indemnified Person seeks recourse under the R&W Policy and therefore such Parent Indemnified Person and/or the R&W Insurance Company under the R&W Policy has the right to control (whether directly or indirectly) the defense thereof. In the event that the Indemnifying Person assumes the defense of any Third-Party Claim, subject to Section 8.5(c), it shall have the right to take such action as it deems necessary to avoid, dispute, defend, appeal or make counterclaims pertaining to any such Third-Party Claim in the name and on behalf of the Indemnified Person. The Indemnified Person shall have the right to participate in the defense of any Third-Party Claim with counsel selected by it subject to the Indemnifying Person's right to control the defense thereof. The fees and disbursements of such counsel shall be at the expense of the Indemnified Person, *provided that* if in the reasonable opinion of counsel to the Indemnified Person, there are legal defenses available to an Indemnified Person that are different from or additional to those available to the Indemnifying Person, the Indemnifying Person shall be liable for the reasonable fees and expenses of counsel to the Indemnified Person in each jurisdiction for which the Indemnified Person determines counsel is required, paid monthly within fifteen (15) days of invoice date. If the Indemnifying Person elects not to compromise or defend such Third-Party Claim, fails to promptly notify the Indemnified Person in writing of its election to defend as provided in this Agreement, or fails to diligently prosecute the defense of such Third-Party Claim, the Indemnified Person may, subject to Section 8.5(c), pay, compromise, defend such Third-Party Claim and seek indemnification for any and all Losses based upon, arising from or relating to such Third-Party Claim, to the extent that such Losses are available to be so indemnified in accordance with the terms hereof. The Securityholders' Representative and Parent shall cooperate with each other in all reasonable respects in connection with the defense of any Third-Party Claim, including making available records relating to such Third-Party Claim and furnishing, without expense (other than reimbursement of actual out-of-pocket expenses) to the defending party, management employees of the non-defending party as may be reasonably necessary for the preparation of the defense of such Third-Party Claim.

(c) Settlement of Third-Party Claims. Notwithstanding any other provision of this Agreement, the Indemnifying Person shall not enter into settlement of any Third-Party Claim without the prior written consent of the Indemnified Person (which consent shall not be unreasonably withheld or delayed), except as provided in this Section 8.5(c). If a firm offer is made to settle a Third-Party Claim without leading to liability or the creation of a financial or other obligation on the part of the Indemnified Person and provides, in customary form, for the unconditional release of each Indemnified Person from all liabilities and obligations in connection with such Third-Party Claim and the Indemnifying Person desires to accept and agree to such offer, the Indemnifying Person shall give written notice to that effect to the Indemnified Person. If the Indemnified Person fails to consent to such firm offer within ten (10) days after its receipt of such notice, the Indemnified Person may continue to contest or defend such Third-Party Claim and in such event, the maximum liability of the Indemnifying Person as to such Third-Party Claim shall not exceed fees and costs incurred through such date and the amount of such settlement offer. If the Indemnified Person fails to consent to such firm offer and also fails to assume defense of such Third-Party Claim, the Indemnifying Person may settle the Third-Party Claim upon the terms set forth in such firm offer to settle such Third-Party Claim. If the Indemnified Person has assumed the defense pursuant to Section 8.5(b), it shall not agree to any settlement without the written consent of the Indemnifying Person (or if the Company Securityholders are the Indemnifying Persons, the Securityholders' Representative) (which consent shall not be unreasonably withheld or delayed).

8.6 Access. From and after the delivery of a Claim Notice by any Parent Indemnified Person in respect of a Third-Party Claim, Parent shall grant the Securityholders' Representative and its representatives reasonable access, upon prior written

notice to Parent, during normal business hours to the applicable books and records of Parent and its Subsidiaries (including the Surviving Corporation) that are relevant to the applicable indemnity claim; *provided*, *however*, that Parent may restrict the foregoing access to the extent that such access would give rise to a material risk of waiving any attorney-client privilege or work product doctrine applicable to such books and records or such books and records contain confidential information that if disclosed would reasonably be expected to harm the business of Parent and its Subsidiaries (including the Surviving Corporation).

8.7 Tax Treatment of Indemnification Payments. Any indemnification payments made to Parent pursuant to this Agreement shall be treated as an adjustment to the Closing Merger Consideration unless otherwise required by applicable Law.

8.8 Exclusive Remedy. Except for (a) the indemnity given for the benefit of the Securityholders' Representative under this Agreement or (b) any non-monetary equitable relief to which any party hereto may be entitled from and after the Closing, the indemnification provisions contained in this Article VIII are intended to provide the sole and exclusive remedy following the Closing as to all Losses any Person may incur arising from or relating to the Agreement and the transactions contemplated hereby, and each party hereby waives, to the full extent they may do so, any other rights or remedies that may arise under any applicable statute, rule or regulation. In the event this Agreement is terminated prior to or absent Closing, the parties shall have all rights and remedies available under applicable Law or in equity, subject to the terms of Section 7.2 of this Agreement.

ARTICLE IX
GENERAL PROVISIONS

9.1 Notices. All notices and other communications hereunder shall be in writing and shall be deemed duly delivered (i) upon receipt if delivered personally, (ii) one (1) Business Day after being sent by commercial overnight courier service, or (iii) upon transmission if sent via facsimile with confirmation of receipt to the parties made by the recipient at the following addresses (or at such other address for a party as shall be specified upon like notice), provided that notices to the Securityholders' Representative shall be delivered solely by facsimile or email:

(A) if to Parent or Merger Sub, to:

Merit Medical Systems, Inc.
1600 West Merit Parkway
South Jordan, Utah 84095
Attention: Brian G. Lloyd, Chief Legal Officer
Telecopy: (801) 208-4238

with a copy to:

Parr Brown Gee & Loveless, PC
101 South 200 East
Salt Lake City, Utah 84111
Attention: Bryan T. Allen
Telecopy: (801) 532-7750

(b) if to the Company, to:

Cianna Medical, Inc.
6 Journey, Suite 125
Aliso Viejo, CA 92656
Attention: Jill Anderson, Chief Executive Officer
Telecopy: (949) 349-0269

with a copy to:

Wilson Sonsini Goodrich & Rosati, P.C.
12235 El Camino Real
San Diego, CA 92130
Attention: Martin J. Waters
Telecopy: (858) 350-2399

(c) if to the Securityholders' Representative, to:

Fortis Advisors LLC
Attention: Notices Department
Facsimile: (858) 408-1843
Email: notices@fortisrep.com

9.2 Counterparts. This Agreement may be executed in one or more counterparts or joinders, all of which shall be considered one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

9.3 Entire Agreement; Nonassignability; Parties in Interest.

(a) This Agreement and the documents and instruments delivered pursuant hereto, including the exhibits hereto, the Disclosure Schedule and the other schedules hereto:

(i) together constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof, except for the Confidentiality Agreement, both of which shall continue in full force and effect in accordance with their terms and shall survive any termination of this Agreement; and

(ii) shall not be assigned by Parent or Merger Sub, on the one hand, or by the Company, on the other hand, without the written consent of each of the parties hereto (and any purported assignment in violation of this Agreement shall be void).

(b) This Agreement is not intended to, and does not, confer upon any Person other than the parties who are signatories hereto any rights or remedies hereunder except (i) to the Company Securityholders as set forth in Article I and (ii) as set forth in Section 5.6; *provided that* the parties hereto further agree that the rights of third party beneficiaries under Section 5.6 shall not arise unless and until the Effective Time occurs.

9.4 Severability. In the event that any provision of this Agreement, or the application thereof becomes, or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement, and the application of such provision to other Persons or circumstances other than those as to which it is determined to be illegal, void or unenforceable, will not be impaired or otherwise affected and will continue in full force and effect and be enforceable to the fullest extent permitted by applicable Law.

9.5 Remedies Cumulative. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party will be deemed cumulative with, and not exclusive of, any other remedy conferred hereby, or by applicable Law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

9.6 Governing Law; Submission to Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by and construed in accordance with the internal applicable Laws of New York applicable to parties residing in the State of New York, without regard to applicable principles of conflicts of law; *provided that*, with respect to those matters under this Agreement that are required to be governed under Delaware Law, then such matters shall be governed by and construed in accordance with Delaware Law. Each of the parties irrevocably consents to the exclusive jurisdiction and venue of any New York State court, or Federal court of the United States of America, sitting in New York, and any appellate court from any thereof, in connection with any matter based upon or arising out of this Agreement or the transactions contemplated hereby and agrees that process may be served upon it in any manner authorized by the applicable Laws of New York for such Persons and waives and covenants not to assert or plead any objection which it might otherwise have to such jurisdiction and such process. EACH OF THE PARTIES IRREVOCABLY WAIVES THE RIGHT TO TRIAL BY JURY IN CONNECTION WITH ANY MATTER BASED UPON OR ARISING OUT OF IS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

9.7 Rules of Construction.

(a) The parties hereto agree that they have been represented by counsel during the negotiation, preparation and execution of this Agreement and, therefore, waive the application of any applicable Law, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

(b) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include the masculine and feminine genders.

(c) As used in this Agreement, (i) the words "include" and "including," and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words "without limitation" and (ii) the words "hereby," "herein," "hereunder" and "hereto" shall be deemed to refer to this Agreement in its entirety and not to any specific section of this Agreement.

(d) Except as otherwise indicated, all references in this Agreement to "Sections," "Exhibits" and "Annexes" are intended to refer to Sections of this Agreement or the Disclosure Schedule, as appropriate, and Exhibits and Annexes to this Agreement.

(e) The headings and subheadings used in this Agreement are for convenience of reference only and shall have no force or effect whatsoever in interpreting any of the provisions of this Agreement.

9.8 Right to Indemnification Not Affected by Knowledge. The right to indemnification, payment of damages, Losses, or other remedy based on the representations, warranties, covenants, and obligations in this Agreement and the other documents, agreements, and certificates delivered pursuant to or in connection with this Agreement will not be affected by any investigation conducted with respect to, or any knowledge acquired (or capable of being acquired) at any time, whether before or after the execution and delivery of this Agreement or the Closing Date, with respect to the accuracy or inaccuracy of or compliance with, any such representation, warranty, covenant or obligation; *provided that*, this sentence does not, and is not intended to, impact, impair or affect any and all disclosures set forth on the Disclosure Schedule and that such disclosure shall qualify the representations and warranties set forth in Article II of this Agreement in accordance with the terms hereunder and the Disclosure Schedule. The waiver of any condition based on the accuracy of any representation or warranty, or on the performance of or compliance with any covenant or obligation, will not affect the right to indemnification, payment of damages, or other remedy based on such representations, warranties, covenants and obligations.

9.9 Waiver of Conflicts Regarding Representation.

(a) Wilson Sonsini Goodrich & Rosati, P.C. ("WSGR") has acted as counsel for the Company in connection with this Agreement and the other agreements referenced herein or therein and the transactions contemplated hereby and thereby (the "Merger Engagement") and, in that connection, not as counsel for any other Person, including Parent or any of its Affiliates. Only the Company shall be considered a client of WSGR in the Merger Engagement. Notwithstanding anything contained herein to the contrary, if the Securityholders' Representative so desires, WSGR shall be permitted, without the need for any future waiver or consent, to represent any of the Securityholders' Representative or any Company Securityholder (each, a "Company Party") after the Closing in connection with any matter related to the matters contemplated by this Agreement or any other agreements referenced herein or therein or any disagreement or dispute relating thereto and may in connection therewith represent the agents or Affiliates of the Securityholders' Representative and/or any Company Party, in any of the foregoing cases including in any dispute, litigation or other adversary proceeding against, with or involving Parent, or any of its agents or Affiliates.

(b) To the extent that communications between any Company Party, on the one hand, and WSGR, on the other hand, relate solely to the Merger Engagement, such communication shall be deemed to be attorney-client confidences that belong solely to the Securityholders' Representative, for and on behalf of the Company Parties. Neither Parent, nor any of its Affiliates, shall have access to any such communications or the files or work product of WSGR, to the extent that they relate solely to the Merger Engagement, whether or not the Closing occurs. Without limiting the generality of the foregoing, Parent acknowledges and agrees, for itself and on behalf of its Affiliates, upon and after the Closing: (i) the Securityholders' Representative, for and on behalf of the Company Parties, and WSGR shall be the sole holder of the attorney-client privilege with respect to information that relates solely to the Merger Engagement, and neither Parent nor any of its Affiliates, shall be a holder thereof; (ii) to the extent that files or work product of WSGR that relate solely to the Merger Engagement constitute property of the Company, only the Securityholders' Representative, for and on behalf of the other Company Parties, shall hold such property rights and have the right to waive or modify such property rights; and (iii) except as determined by the Securityholders' Representative, WSGR shall have no duty whatsoever to reveal or disclose any such attorney-client communications, files or work product to Parent or any of its Affiliates, by reason of any attorney-client relationship between WSGR and the Company to the extent relating solely to the Merger Engagement; *provided that*, to the extent any communication is both related and unrelated to the Merger Engagement, WSGR shall provide (and the Securityholders' Representative, for and on behalf of the other Company Parties, shall instruct WSGR to provide) copies of such communications, files or work product to Parent or its Affiliates (with only that information that solely relates to the Merger Engagement redacted).

9.10 Enforcement. The parties hereto hereby agree that irreparable damage would occur in the event that any provision of this Agreement were not performed in accordance with its specific terms or were otherwise breached, and that money damages or other legal remedies would not be an adequate remedy for any such damages. Accordingly, the parties hereto acknowledge and hereby agree that in the event of any breach or threatened breach by the Company, on the one hand, or Parent and/or Merger Sub, on the other hand, of any of their respective covenants or obligations set forth in this Agreement, the Company, on the one hand, and Parent and Merger Sub, on the other hand, shall be entitled to an injunction or injunctions to prevent or restrain breaches or threatened breaches of this Agreement, by the other (as applicable), and to specifically enforce the terms and provisions of this Agreement to prevent breaches or threatened breaches of, or to enforce compliance with, the covenants and obligations of the other under this Agreement. The Company, on the one hand, and Parent and Merger Sub, on the other hand hereby agree not to raise any objections to the availability of the equitable remedy of specific performance to prevent or restrain breaches or threatened breaches of this Agreement by such party (or parties), and to specifically enforce the terms and provisions of this Agreement to prevent breaches or threatened breaches of, or to enforce compliance with, the covenants and obligations of such party (or parties) under this Agreement. Any party seeking an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions of this Agreement shall not be required to provide any bond or other security in connection with any such order or injunction.

9.11 Amendment; Waiver. This Agreement may not be amended, modified, or supplemented except by an instrument in writing signed by (a) Parent and the Company at any time prior to the Effective Time, or (b) Parent and the Securityholders' Representative at any time following the Effective Time. Any waiver of any of the terms or conditions of this Agreement must be in writing and must be duly executed by or on behalf of the party to be charged with such waiver. Except as expressly set forth in this Agreement, the failure of a party to exercise any of its rights hereunder or to insist upon strict adherence to any term or condition hereof on any one occasion shall not be construed as a waiver or deprive that party of the right thereafter to insist upon strict adherence to the terms and conditions of this Agreement at a later date. Further, no waiver of any of the terms and conditions of this Agreement shall be deemed to or shall constitute a waiver of any other term of condition hereof (whether or not similar).

9.12 Fees and Expenses. Except as otherwise expressly provided in this Agreement, all fees, costs, and expenses incurred in connection with this Agreement and the transactions contemplated hereby, including, without limitation, fees and expenses of financial advisors, financial sponsors, legal counsel and other advisors, shall be paid by the party incurring such expenses whether or not the Merger is consummated.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the Company, Parent, Merger Sub and the Securityholders' Representative have caused this Agreement to be executed and delivered by each of them or their respective officers thereunto duly authorized, all as of the Agreement Date.

CIANNA MEDICAL, INC.

By: /s/ Jill Anderson
Name: Jill Anderson
Title: Chief Executive Officer

CMI TRANSACTION CO.

By: /s/ Fred P. Lampropoulos
Name: Fred P. Lampropoulos
Title: Chief Executive Officer and President

MERIT MEDICAL SYSTEMS, INC.

By: /s/ Fred P. Lampropoulos
Name: Fred P. Lampropoulos
Title: Chief Executive Officer and President

FORTIS ADVISORS LLC, AS THE SECURITYHOLDERS' REPRESENTATIVE

By: /s/ Ryan Simkin
Name: Ryan Simkin
Title: Managing Director

Annex A

As used in this Agreement, the following terms shall have the following meanings:

"Action" means any claim, action, cause of action, suit, hearing, proceeding, opposition, post grant review (including inter partes review), litigation, citation, summons, subpoena, or investigation of any nature, civil, criminal, administrative, regulatory or otherwise, whether at law or in equity.

"Affiliate" means, with respect to any Person, another Person that, directly or indirectly, through one or more intermediaries, Controls, is Controlled by, or is under common Control with such Person. For purposes of this definition, "Control" means, as to any Person, the possession (directly or indirectly) of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities, by contract or otherwise, and the terms "Controlled by," "under common Control with" and "Controlling" shall have correlative meanings.

"Ancillary Documents" means the Escrow Agreement, the Certificate of Merger, and the Joinder Agreements.

"Assets" means all tangible and intangible properties and assets (real, personal or mixed), and, in case of the Company, used or held for use in the operation of the Current Company Business.

"Business Day" means a day which is neither a Saturday or Sunday, nor any other day on which banking institutions in San Diego, California are authorized or obligated by law to close.

"Change of Control Payments" means any bonuses, phantom equity payments, employee or management incentive plan payments, severance payments, or similar payments that are incurred, or agreed to, by the Company prior to the Closing that are required to be paid to or on behalf of an employee or contractor of the Company that become payable (whether currently or in the future) by or on behalf of the Company to any such employee or contractor as a result of or in connection with (a) termination of such employee's employment or contractor's engagement with the Company at the Closing (with the understanding that any such termination that occurs after the Closing shall expressly not constitute a Change of Control Payment for any purpose hereunder) or (b) any "change of control" provision binding on the Company triggered by the transactions contemplated by this Agreement (either alone or together with any other trigger event) (with the understanding that any such "change of control provision" that is a "double trigger" termination that is payable only upon the termination of employment and such termination occurs after the Closing shall expressly not constitute a Change of Control Payment for any purpose hereunder). For the avoidance of doubt, (x) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan, and (y) the aggregate amount payable to COC Participants in respect of their interest in COC Agreements, in each case, without duplication, shall constitute Change of Control Payments.

"Closing Cash" shall mean the aggregate amount of any cash and cash equivalents of the Company as of 12:01 a.m. pacific time on the Closing Date.

"Closing Employer Tax Amount" means the Employer Tax Amount with respect to (a) the Closing Net Option Payment and (b) the Change of Control Payments in respect of Closing Merger Consideration.

"Closing Indebtedness" shall mean the aggregate amount of all outstanding Indebtedness of the Company as of 12:01 a.m. pacific time on the Closing Date, as determined in accordance with GAAP.

"Closing Indebtedness Certificate" means a certificate executed by the chief executive officer or chief financial officer of the Company certifying on behalf of the Company an itemized list of all outstanding Closing Indebtedness, the Person to whom such outstanding Closing Indebtedness is owed and an aggregate total of such outstanding Closing Indebtedness.

"Closing Merger Consideration" means an amount, in cash, equal to the sum of

(a) $135,000,000;

(b) *plus*, the aggregate exercise price in respect of all Company Options and Company Warrants outstanding immediately prior to the Effective Time;

(c) *plus*, the Closing Cash;

(d) *minus*, the Closing Indebtedness;

(e) *minus*, the Indemnification Escrow Amount;

(f) *minus*, the Post-Closing Adjustment Escrow Amount;

(g) *minus*, the Expense Fund Distribution Amount;

(h) *plus or minus (as applicable)*, the Estimated Closing Adjustment amount; and

(i) *minus*, the sum of (without duplication) (1) the aggregate amount payable to KSP Participants in respect of their interest in the KSP Plan with respect to the Closing Merger Consideration, if any, (2) the aggregate amount payable to COC Participants in respect of their interest in COC Agreements with respect to the Closing Merger Consideration, (3) the aggregate amount payable to JPM under the JPM Engagement Letter with respect to the Closing Merger Consideration, and (4) the unpaid Transaction Expenses and Change of Control Payments (not otherwise covered under clauses (1) - (3) of this clause and which expressly excludes any amounts payable to those individuals or entities referenced in clauses (1) - (3) in respect of any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount or Excess Payment Amount).

"Closing Transaction Expenses Certificate" means a certificate executed by the chief executive officer or chief financial officer of the Company, certifying the amount of Transaction Expenses remaining unpaid as of the Closing (including an itemized list of each such unpaid Transaction Expense with a description of the nature of such expense and the Person to whom such expense is owed).

"Closing Working Capital" means: (a) the Current Assets of the Company, *less* (b) the Current Liabilities of the Company, in each case determined as of 12:01 a.m. pacific time on the Closing Date.

"COBRA" means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended and as codified in Section 4980B of the Code and Section 601 et. seq. of ERISA.

"COC Agreements" means, collectively, each of the agreements set forth on Schedule I (and each, a "COC Agreement").

"COC Participants" means, collectively, each of the individuals set forth on Schedule II (and each, a "COC Participant").

"Code" means the Internal Revenue Code of 1986, as amended.

"Company Bylaws" means the Company's bylaws, as in effect on the Agreement Date.

"Company Capital Stock" means all shares of Company Common Stock and Company Preferred Stock.

"Company Charter" means the Company's amended and restated certificate of incorporation, as amended, as in effect on the Agreement Date.

"Company Common Stock" means shares of the Company's common stock, par value $0.001 per share.

"Company Employee Plan" means any plan, program, policy, practice, contract, agreement or other arrangement providing for pension, severance, termination pay, retirement, profit-sharing, change in control, deferred compensation, performance awards, stock or stock-related awards, phantom equity, bonuses, retention, commissions, vacation, fringe benefits, medical, visions, dental, disability, welfare, or other employee benefits of any kind, whether written or unwritten, funded or unfunded, including each Employee Agreement, Pension Plan and, without limitation, each "employee benefit plan," within the meaning of Section 3(3) of ERISA which (a) is currently (or in the past five (5) years has been) maintained, contributed to, or required to be contributed to, by the Company or any Subsidiary of the Company for the benefit of any Employee or dependent of any such Employee and pursuant to which the Company has or may have any liability or obligation, or (b) the Company or any Subsidiary of the Company has or may have any liability or obligation. Company Employee Plan includes, without limitation, any plan, agreement or arrangement pursuant to which Change of Control Payments are to be made.

"Company Fundamental Representations" means each of the following representations and warranties: Section 2.1 (Organization, Standing and Power); Section 2.2 (Authority; Enforceability); Section 2.5 (Capitalization);

Section 2.10(c) (Ownership of Intellectual Property); Section 2.12(a) (Title to Tangible Assets); Section 2.15 (Taxes); and Section 2.30 (Brokers' and Finders' Fee).

"Company Incentive Plan" means the Company's 2007 Stock Plan, as amended from time to time.

"Company Intellectual Property Rights" means all of the Intellectual Property Rights owned by to the Company, including all the Intellectual Property Rights owned by to any Affiliate.

"Company IP Registrations" means all Company Intellectual Property Rights that are subject to any issuance, registration or application by, to or with any Governmental Entity or authorized private registrar in any jurisdiction, including issued patents, registered trademarks, domain names and copyrights, and pending applications for any of the foregoing.

"Company Material Adverse Effect" means any event, occurrence, fact, condition or change that has had, or would reasonably be expected to have, individually or in the aggregate, a materially adverse on (a) the business, results of operations, condition (financial or otherwise) or assets of the Company, or (b) the ability of the Company to consummate the transactions contemplated hereby in accordance with the terms hereunder; *provided*, *however*, that "Company Material Adverse Effect" shall not include any event, occurrence, fact, condition or change, directly or indirectly, arising out of or attributable to: (i) general economic or political conditions; (ii) conditions generally affecting the industries in which the Company operates; (iii) any changes in financial or securities markets in general; (iv) acts of war (whether or not declared), armed hostilities or terrorism, or the escalation or worsening thereof; (v) any action required by this Agreement; (vi) any changes in applicable Laws or accounting rules, including GAAP; or (vii) the public announcement, pendency or completion of the transactions contemplated by this Agreement; *provided further*, *however*, that any event, occurrence, fact, condition or change referred to in clauses (i) through (iv) immediately above shall be taken into account in determining whether a "Company Material Adverse Effect" has occurred or would reasonably be expected to occur to the extent that such event, occurrence, fact, condition or change has a disproportionate effect on the Company compared to other companies in the industry in which the Company conducts its business.

"Company Optionholders" mean those Persons who held outstanding Company Options immediately prior to the Effective Time.

"Company Options" means options to purchase shares of Company Common Stock.

"Company Organizational Documents" means the Company Charter and the Company Bylaws.

"Company Preferred Stock" means all shares of Series A Preferred Stock and Series B Preferred Stock.

"Company Securityholders" means, collectively, Company Stockholders, Company Optionholders and Company Warrantholders.

"Company Stakeholders" means, collectively, the Company Securityholders, JPM and all Persons eligible to receive Change of Control Payments hereunder.

"Company Stockholders" mean those Persons who held shares of outstanding Company Capital Stock immediately prior to the Effective Time.

"Company Warrantholders" mean those Persons who held shares of outstanding Company Warrants immediately prior to the Effective Time.

"Company Warrants" means warrants to purchase shares of Series B Preferred Stock.

"Continuing Employees" means all employees of the Company and its Subsidiaries who at the Effective Time, continue their employment with the Company, the Surviving Corporation, Parent or any of their respective Subsidiaries.

"Contract" means any agreement, contract, lease, instrument, note, warrant, purchase order, license, mortgage, indenture, joint venture, undertaking and all other agreements, commitments or other arrangements, whether written or oral.

"Current Assets" means the aggregate dollar amount of all Assets characterized as current assets of the Company, excluding Closing Cash, as determined in accordance with GAAP applied using the same accounting methods, practices, principles, policies and procedures, with consistent classifications, judgments and valuation and estimation methodologies that were used in the preparation of the Audited Financial Statements for the fiscal year ended December 31, 2017.

"Current Liabilities" means the aggregate dollar amount of all Liabilities characterized as current liabilities of the Company, excluding Transaction Expenses, and the current portion of any Indebtedness of the Company, as determined in accordance with GAAP applied using the same accounting methods, practices, principles, policies and procedures, with consistent classifications, judgments and valuation and estimation methodologies that were used in the preparation of the Audited Financial Statements for the fiscal year ended December 31, 2017.

"Employee" means any current or former or retired employee, consultant or director of the Company or any Subsidiary. For the avoidance of doubt, nothing in this Agreement shall be deemed to give any Person any claim to be treated as an employee of the Company.

"Employee Agreement" means each written employment, severance, consulting, relocation, or other agreements or contract between the Company or any Subsidiary and any Employee under which the Company or any Subsidiary has a material obligation (other than those agreements, contracts or understandings that are terminable by the Company or any ERISA Affiliate without notice and without liability or financial obligation to the Company or any ERISA Affiliate).

"Employer Tax Amount" with respect to the referenced payment or consideration under this Agreement or the Escrow Agreement, all Social Security Medicare Taxes and other employment Taxes accrued, incurred, paid or payable by the Company or the Surviving Corporation with the referenced payment or consideration.

"Environmental Laws" means any applicable Law, and any governmental Order or binding agreement with any Governmental Entity: (a) relating to pollution (or the cleanup thereof) or the protection of natural resources, endangered or threatened species, human health or safety, or the environment (including ambient air, soil, surface water or groundwater, or subsurface strata); or (b) concerning the presence of, exposure to, or the management, manufacture, use, containment, storage, recycling, reclamation, reuse, treatment, generation, discharge, transportation, processing, production, disposal or remediation of any Hazardous Materials. The term "Environmental Law" includes, without limitation, the following (including their implementing regulations and any state analogs): the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §§ 9601 et seq.; the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §§ 6901 et seq.; the Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, 33 U.S.C. §§ 1251 et seq.; the Toxic Substances Control Act of 1976, as amended, 15 U.S.C. §§ 2601 et seq.; the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §§ 11001 et seq.; the Clean Air Act of 1966, as amended by the Clean Air Act Amendments of 1990, 42 U.S.C. §§ 7401 et seq.; and the Occupational Safety and Health Act of 1970, as amended, 29 U.S.C. §§ 651 et seq.

"Environmental Permit" means any permit, license, authorization, letter, clearance, consent, waiver, closure, exemption, decision, or approval required under or issued, granted, giver or authorized by or made pursuant to Environmental Law.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

"ERISA Affiliate" means each Subsidiary of the Company and any other individual or entity Controlling, Controlled by or under common Control with the Company within the meaning of Section 414(b), (c), (m) or (o) of the Code and the regulations issued thereunder.

"Escrow Agent" means Wells Fargo Bank, National Association.

"Escrow Agreement" means the Escrow Agreement, dated as of the Closing Date, by and among the Escrow Agent, Parent and the Securityholders' Representative, in substantially the form attached hereto as Exhibit G.

"Escrow Funds" means the Indemnification Escrow Fund and Post-Closing Adjustment Escrow Fund deposited in the Escrow Account.

"Estimated Closing Adjustment" shall be an amount equal to the Estimated Closing Working Capital minus the Target Working Capital.

"Expense Fund Distribution Amount" means Two Hundred and Fifty Thousand Dollars ($250,000).

"FDA" means the United States Food and Drug Administration or any successor agency thereto.

"GAAP" means accounting principles generally accepted in the United States.

"Governmental Entity" means any federal, state, provincial, local or foreign government or political subdivision thereof, or any agency or instrumentality of such government or political subdivision, or any self-regulated organization or other non-governmental regulatory authority or quasi-governmental authority (to the extent that the rules, regulations or orders of such organization or authority have the force of Law), or anybody exercising, or entitled to exercise, any administrative, executive, judicial, legislative, police, regulatory, or Taxing authority, or any arbitrator, court or tribunal of competent jurisdiction.

"Hazardous Materials" means: (a) any material, substance, chemical, waste, product, derivative, compound, mixture, solid, liquid, mineral or gas, in each case, whether naturally occurring or manmade, that is hazardous, acutely hazardous, toxic, or words of similar import or regulatory effect under Environmental Laws; and (b) any petroleum or petroleum-derived products, radon, radioactive materials or wastes, asbestos in any form, lead or lead-containing materials, urea formaldehyde foam insulation, and polychlorinated biphenyls.

"Indebtedness" means, without duplication and with respect to any Person, all (a) indebtedness for borrowed money; (b) obligations for the deferred purchase price of property or services (excluding, for the avoidance of doubt, accounts payable of the Company incurred in the ordinary course of business); (c) long or short-term obligations evidenced by any note, bond, debenture or other instrument; (d) obligations under any interest rate, currency swap or other hedging agreement or arrangement; (e) capital lease obligations; (f) reimbursement obligations under any letter of credit, banker's acceptance or similar credit transaction; (g) guarantees made by such Person on behalf of any third party in respect of any obligation of the kind referred to in the foregoing clauses (a) through (f); and (h) unpaid interest, prepayment penalties, premiums, costs and fees that would arise or become due as a result of the prepayment of any of the obligations referred to in the foregoing clauses (a) through (g).

"Indemnification Escrow Amount" means Two Million Twenty-Five Thousand Dollars ($2,025,000).

"Indemnification Pro Rata Portion" means, with respect to any Company Securityholder, the Merger Consideration received by such Company Securityholder (including all Change of Control Payments then received by such Company Securityholder) relative to the Merger Consideration received by all Company Securityholders (including all Change of Control Payments then received by all Company Securityholders), in each case, measured as of the time of the receipt of a Claim Notice received by the Securityholders' Representative with respect to an indemnification claim made by a Parent Indemnified Person hereunder.

"Indemnified Person" means any Parent Indemnified Person or Company Securityholder Indemnified Person, as applicable.

"Indemnifying Person" means any Person(s) against whom a claim for indemnification is being asserted under any provision of Article VIII herein.

"Indemnity Period" means the period from the Closing Date to the date that is 18 months from the Closing Date.

"Intellectual Property Rights" means any and all rights in, arising out of, or associated with any of the following in any jurisdiction throughout the world: (a) issued patents and patent applications (whether provisional or non-provisional), including divisionals, continuations, continuations-in-part, substitutions, reissues, reexaminations, extensions, or restorations of any of the foregoing, and other Governmental Entity-issued indicia of invention ownership (including certificates of invention, petty patents, and patent utility models) ("Patents"); (b) trademarks, service marks, brands, certification marks, logos, trade dress, trade names, and other similar indicia of source or origin, together with the goodwill connected with the use of and symbolized by, and all registrations, applications for registration, and renewals of, any of the foregoing ("Trademarks"); (c) copyrights and works of authorship, whether or not copyrightable, and all registrations, applications for registration, and renewals of any of the foregoing ("Copyrights"); (d) internet domain names and social media account or user names (including "handles"), whether or not Trademarks, all associated web addresses, URLs, websites and web pages, social media accounts and pages, and all content and data thereon or relating thereto, whether or not Copyrights; (e) industrial designs, and all Patents, registrations, applications for registration, and renewals thereof; (f) trade secrets, know-how, inventions (whether or not patentable), discoveries, improvements, technology, business and technical information, databases, data compilations and collections, tools, methods, processes, techniques, and other confidential and proprietary information and all rights therein ("Trade Secrets"); (g) computer programs, operating systems, applications, firmware, and other code, including all source code, object code, application programming interfaces, data files, databases, protocols, specifications, and other documentation thereof; (h) rights of publicity; and (i) all other intellectual or industrial property and proprietary rights.

"IRS" means the Internal Revenue Service.

"JPM" means J.P. Morgan Securities LLC.

"JPM Engagement Letter" means the engagement letter agreement dated April 16, 2018 by and between JPM and the Company.

"knowledge" means, with reference to the Company, the actual knowledge of the individuals set forth in Schedule III and such knowledge that such individuals would reasonably be expected to have after conducting reasonable inquiry.

"KSP Participant" means each individual Key Service Provider (as defined in the KSP Plan) who has a right to receive proceeds under the KSP Plan.

"KSP Plan" means the Company's Amended and Restated Key Service Provider Carveout Plan, as in effect as of the Agreement Date.

"Law" means any federal, state, local or foreign law, statute, ordinance, rule, regulation, judgment, order, code, common law, injunction or decree.

"Liabilities" means any debt, liability or obligation of any kind, character or nature, whatsoever, whether secured, fixed, absolute, matured, contingent or otherwise, and whether due or to become due.

"Licensed Intellectual Property Rights" means all Intellectual Property Rights used in connection with the business of the Company as currently conducted, other than Company Intellectual Property Rights.

"Liens" means any charge, claim, community property interest, pledge, condition, equitable interest, lien (statutory or other), option, security interest, mortgage, easement, encroachment, right of way, right of first refusal, or restriction of any kind, including any restriction on use, voting, transfer, receipt of income or exercise of any other attribute of ownership.

"Losses" (including, with the correlative meaning, the term "Loss") means any losses, damages, liabilities, deficiencies, judgments, interest, awards, penalties, fines, costs and expenses of whatever kind (including reasonable fees and disbursements of counsel and other professionals and the cost of pursuing any insurance providers or Company Securityholders in accordance with the terms hereunder); *provided that*, "Losses" shall not include punitive or exemplary damages, except (a) to the extent actually awarded to a Governmental Entity or other third party or (b) in connection with any matter involving fraud or willful misconduct by the Indemnifying Person.

"Merger Consideration" means (a) the Closing Merger Consideration, *plus* (b) the Escrow Release Amount, if any, *plus* (c) the Earn-out Payments, if any, *plus* (d) the Expense Fund Distribution Amount, if any, *plus* (e) Excess Payment Amount, if any.

"Multiemployer Plan" means any "multiemployer plan," as defined in Section 3(37) of ERISA.

"OFAC" means the U.S. Department of Treasury Office of Foreign Asset Control.

"Off-The-Shelf Software" means any shrinkwrap, clickwrap or other commercially available software licenses granted to the Company for third party software used by the Company under which the annual recurring fees the Company is required to pay for use of such software licenses are less than $5,000.

"Order" means any order, award, decisions, injunction, judgment, decree, ruling, subpoena, writ, assessment, verdict or arbitration award entered by or with any Governmental Entity.

"ordinary course of business" means the ordinary course of the Current Company Business consistent with past practice.

"Parent Fundamental Representations" means each of the following representations and warranties made by Parent: Section 3.1 (Organization; Standing and Power); Section 3.2 (Authority); and Section 3.7 (Brokers' and Finders' Fees).

"Permitted Liens" means (a) Liens for Taxes and other similar governmental charges and assessments which are not yet due and payable or Liens for Taxes being contested in good faith; (b) Liens of landlords and Liens of carriers, warehousemen, mechanics and materialmen and other like liens arising in the ordinary course of business consistent with past practice for sums not yet due and payable and that do not impair the conduct of the Company's business or the present use of the

property affected by such Lien; (c) undetermined or inchoate Liens existing as of the Closing Date and any statutory Liens existing as of the Closing Date and claimed or held by any Governmental Entity that have not at the time been filed or registered against title to the assets of the Company or that are related to obligations that are not due or delinquent; (d) security given in the ordinary course of business as of the Closing Date to any public utility; (e) Liens imposed on the underlying fee interest in real property underlying any Leases (unless caused by the Company); (f) zoning, entitlement, building and other land use regulations imposed by Governmental Entities having jurisdiction over real property which are not violated by the current use and operation of such real property; and (g) covenants, conditions, restrictions, easements and other similar matters of record affecting title to real property which do not materially impair the occupancy or use of such real property for the purposes for which it is currently used in connection with the Company's business. Permitted Liens does not include security interests in Company Intellectual Property Rights.

"Person" means any individual, corporation (including not for profit), general or limited partnership, limited liability company, joint venture, estate, trust, association, organization, Governmental Entity or other entity of any kind or nature.

"Personal Information" means the type of information regulated by Privacy Laws and collected, used, disclosed or retained by the Company such as an individual's name, address, age, gender, identification number, family status, citizenship, employment, assets, liabilities, source of funds, payment records, credit information, personal references and health records.

"Policy Excluded Loss" means a Loss that arises or results from or is based on (a) the breach of a representation or warranty that is excluded from coverage under the R&W Policy, or (b) with respect to which the R&W Insurance Company otherwise denies coverage under the R&W Policy.

"Post-Closing Adjustment Escrow Amount" means Four Hundred Thousand Dollars ($400,000).

"Privacy Laws" means all applicable Laws of any nation in which the Company operates governing the collection, use, disclosure and retention of Personal Information.

"R&W Insurance Company" means the insurance company provider of the R&W Policy.

"R&W Policy" means a buyer-side representations and warranties insurance policy issued by the R&W Insurance Company for the benefit of Parent (and any additional insureds named by Parent).

"R&W Policy Coverage Limit" mean an amount equal to Twenty Million Dollars ($20,000,000.00).

"R&W Policy Retention Amount" means the aggregate amount of retention set forth in the R&W Policy; *provided that* in no event shall such amount exceed One Million Three Hundred and Fifty Thousand Dollars ($1,350,000).

"Release" shall have the same meaning as under the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. §9601(22).

"Sanctioned Country" has the meaning specified in the definition of Sanctioned Person.

"Sanctioned Person" means any Person that is the subject or target of sanctions or restrictions under Sanctions Laws or export-import Laws, including: (a) any Person listed on any applicable United States or foreign sanctions or export-related restricted party list, including OFAC's Specially Designated Nationals and Blocked Persons List and the EU Consolidated List; (b) any entity that is, in the aggregate, fifty percent (50%) or greater owned, directly or indirectly, or otherwise Controlled by a Person or Persons described in clause (a); or (c) any national of a country or region that is the target of comprehensive economic sanctions (including Cuba, Iran, Sudan, Syria, North Korea, and the Crimea region of Ukraine, each a "Sanctioned Country").

"Sanctions Laws" means all United States and foreign Law relating to economic or trade sanctions, including those administered or enforced by the United States (including by OFAC or the U.S. Department of State), the United Nations Security Council, and the European Union.

"Series A Preferred Stock" means shares of the Company's Series A Preferred Stock, par value $0.001 per share.

"Series B Preferred Stock" means shares of the Company's Series B Preferred Stock, par value $0.001 per share.

"Subsidiary" means any entity, whether incorporated or unincorporated, of which at least a majority of the securities or ownership interests having by their terms voting power to elect a majority of the board of directors or other persons

performing similar functions is directly or indirectly owned or Controlled by such party or by one or more of its respective Subsidiaries.

"Target Working Capital" means Five Million Eight Hundred Thousand Dollars ($5,800,000).

"Tax(es)" mean all income, profits, gross receipts, environmental, customs duty, capital stock, sales, use, occupancy, value added, ad valorem, stamp, franchise, withholding, payroll, employment, unemployment, disability, excise, property, production, escheat or unclaimed property and other taxes, duties or assessments imposed by any Governmental Entity (whether national, local, municipal or otherwise) or political subdivision thereof in the nature of a tax, together with all interest, penalties and additions imposed with respect to such amounts, any interest in respect of such penalties or additions, and any obligations under any legally binding agreements or arrangements with any other Person with respect to such amounts.

"Tax Returns" mean all U.S. federal, state, provincial, local and non-U.S. returns, estimates, information statements, declarations, elections, forms and reports relating to Taxes (including attachments or schedules thereto or amendments thereof).

"Total Fully Diluted Outstanding Shares" means the sum of (a) the aggregate number of shares of Company Common Stock issued and outstanding as of immediately prior to the Effective Time, (b) the aggregate number of shares of Company Common Stock issuable upon the conversion of all shares of Company Preferred Stock issued and outstanding as of immediately prior to the Effective Time, and (c) the aggregate number of shares of Company Capital Stock underlying all outstanding Company Options and Company Warrants as of immediately prior to the Effective Time.

"Transaction Expenses" means all fees and expenses incurred by the Company at or prior to the Closing in connection with the preparation, negotiation and execution of this Agreement and the Ancillary Documents, and the performance and consummation of the Merger and the other transactions contemplated hereby and thereby, including, but not limited to, but without duplication:

(a) the premium associated with obtaining the R&W Policy (if so obtained), in an amount not to exceed $500,000;

(b) one-half of any HSR Fees;

(c) the premium associated with obtaining the D&O Tail;

(d) the Paying Agent Costs;

(e) the amount payable to JPM under the JPM Engagement Letter (but not including future amounts payable to JPM under the JPM Engagement Letter in respect of any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount, which amounts shall not constitute "Transaction Expenses" at Closing, but will be paid from the Merger Consideration in accordance with this Agreement); and

(f) any Change of Control Payment and any Closing Employer Tax Amount (but expressly excluding any Employer Tax Amount in respect of any Earn-out Payment, Escrow Release Amount, Expense Fund Distribution Amount and/or Excess Payment Amount payable hereunder).

Table of Other Defined Terms

Terms used in this Agreement and not otherwise defined in this Annex A shall have the meaning ascribed to such terms in the following Sections of this Agreement:

Term	Section
280G Stockholder Vote	5.9
Acquisition Proposal	5.7(a)
Agreement	Preamble
Agreement Date	Preamble

Exhibit 10.32

FIRST AMENDMENT TO THE
MERIT MEDICAL SYSTEMS, INC.
2018 LONG-TERM INCENTIVE PLAN

THIS FIRST AMENDMENT TO THE MERIT MEDICAL SYSTEMS, INC. 2018 LONG-TERM INCENTIVE PLAN (this "Amendment") is made and adopted effective December 14, 2018 by Merit Medical Systems, Inc.

WHEREAS, Merit Medical Systems, Inc. (the "Company") maintains the Merit Medical Systems, Inc. 2018 Long-Term Incentive Plan (the "Plan") for the benefit of its employees and the employees of its participating subsidiaries;

WHEREAS, the Board of Directors (the "Board") of the Company has determined that it is necessary and desirable to amend the Plan to provide for certain minimum vesting periods for all awards granted under the Plan; and

WHEREAS, the Company, acting through its Board, has reserved the right to amend the Plan at any time and from time to time pursuant to Section 12.1 of the Plan, subject to shareholder approval in the case of certain material modifications.

NOW, THEREFORE, the Plan is amended as follows effective December 14, 2018:

1. Clause (xii) of Section 4.2(a)(xii) of the Plan, relating to the Committee's discretion to accelerate vesting of Awards, is amended to read as follows:

"(xii) accelerate, on a case-by-case basis, the exercisability or vesting of a Participant's Awards, in whole or in part, upon such Participant's death, Disability or other termination of Continuous Service occurring at least one year after the Grant Date of the Award in question;"

2. Section 5.4(b) of the Plan, relating to Options, is amended to read as follows:

"(b) Each Option shall be subject to such terms and conditions on the time or times when it may be exercised (which conditions may be based on Continuing Service, Performance Goals or a combination thereof) as the Committee may deem appropriate and set forth in the applicable Award Agreement. The vesting provisions of individual Options may vary from Award to Award; provided, that, in no event shall an Option be exercisable prior to the one-year anniversary of the Option's Grant Date, except as provided in Section 11 of the Plan."

3. Section 6.2(a) of the Plan, relating to Stock Appreciation Rights, is amended to read as follows:

"(a) Each Stock Appreciation Right shall be subject to such terms and conditions on the time or times when it may be exercised (which conditions may be based on Continuing Service, Performance Goals, or a combination thereof) as the Committee may deem appropriate and set forth in the applicable Award Agreement. The vesting provisions of individual Stock Appreciation Rights may vary from Award to Award; provided, that, in no event shall a Stock Appreciation Right be exercisable prior to the one-year anniversary of the Stock Appreciation Right's Grant Date, except as provided in Section 11 of the Plan."

4. Section 7.4 of the Plan, relating to Restricted Stock Awards, is amended to read as follows:

"**7.4**. *Vesting*. Restricted Stock Awards shall be subject to such terms and conditions on the time or times when they vest (which conditions may be based on Continuing Service, Performance Goals or a combination thereof) as the Committee may deem appropriate and set forth in the applicable Award Agreement; provided, that, in no event shall the Vesting Period for a Restricted Stock Award be less than a period of time equal to one year, except as provided in Section 11 of the Plan."

5. Section 8.4 of the Plan, relating to Restricted Stock Units, is amended to read as follows:

"**8.4**. *Vesting*. Restricted Stock Unit Awards shall be subject to such terms and conditions on the time or times when they vest and become earned (which conditions may be based on Continuing Service,

Performance Goals or a combination thereof) as the Committee may deem appropriate and set forth in the applicable Award Agreement; provided, that, in no event shall the Vesting Period for a Restricted Stock Unit Award be less than a period of time equal to one year, except as provided in Section 11 of the Plan."

6. Section 9 of the Plan, relating to Other Share Based Awards, is amended to add the following sentence at the end thereof:
"In no event shall the Vesting Period for an Other Share Based Award be less than a period of time equal to one year from the applicable Grant Date, except as provided in Section 11 of the Plan."

7. Except as provided above, the terms of the Plan are hereby ratified and confirmed in all respects.

IN WITNESS WHEREOF, the Company has caused this Amendment to be executed by its duly authorized officer effective as of December 14, 2018.

MERIT MEDICAL SYSTEMS, INC.

By: /s/ Fred P. Lampropoulos
Name: Fred P. Lampropoulos
Title: Chairman and Chief Executive Officer

Exhibit No. 10.33

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is made as of December 14, 2018 by and between Merit Medical Systems, Inc., a Utah corporation ("Company"), and [ ], an individual ("Indemnitee").

RECITALS

A. The Company is aware that because of the increased exposure to litigation costs, talented and experienced persons are increasingly reluctant to serve or continue serving as directors and officers of corporations unless they are protected by comprehensive liability insurance and indemnification.

B. The statutes and judicial decisions regarding the duties of directors and officers are often difficult to apply, ambiguous, or conflicting, and therefore often fail to provide such directors and officers with adequate guidance regarding the proper course of action.

C. The Board of Directors of the Company (the "Board"), has concluded that, in order to retain and attract talented and experienced individuals to serve as officers and directors of the Company and its subsidiaries and to encourage such individuals to take the business risks necessary for the success of the Company and its subsidiaries, the Company should contractually indemnify its officers and directors, and the officers and directors of its subsidiaries, in connection with claims against such officers and directors relating to their services to the Company and its subsidiaries and has further concluded that the failure to provide such contractual indemnification could be detrimental to the Company, its subsidiaries and shareholders.

D. Indemnitee's willingness to serve as a director of the Company is predicated, in substantial part, upon the Company's willingness to indemnify Indemnitee in accordance with the principles reflected above, to the fullest extent permitted by the laws of the State of Utah, and upon the other undertakings set forth in this Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises made in this Agreement, and for other good and valuable consideration, the receipt and legal sufficiency of which is hereby acknowledged, the Company and Indemnitee, intending to be legally bound hereby, hereby agree as follows:

1. **Definitions**.

(a) **Agent**. "Agent" with respect to the Company means any person who is or was a director, officer, employee or other agent of the Company or a subsidiary; or is or was serving at the request of, for the convenience of, or to represent the interests of, the Company or a subsidiary as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise (including without limitation any employee benefit plan whether or not subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA")); or was a director, officer,

employee or agent of a predecessor corporation (or other predecessor entity or enterprise) of the Company or a subsidiary, or was a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise (including without limitation any employee benefit plan whether or not subject to the ERISA) at the request of, for the convenience of, or to represent the interests of such predecessor.

(b) **Change in Control**. "Change in Control" shall mean, and shall be deemed to have occurred if, on or after the date of this Agreement: (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) or group acting in concert, other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the shareholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities; (ii) during any period of two (2) consecutive years, individuals who at the beginning of such period constitute the Board and any new director whose election by the Board or nomination for election by the Company's shareholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof; (iii) the shareholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) at least eighty percent (80%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation; or (iv) the shareholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets.

(c) **Company**. References to the "Company" shall include, in addition to Merit Medical Systems, Inc., any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which Merit Medical Systems, Inc. (or any of its wholly-owned subsidiaries) is a party which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(d) **Expenses**. "Expenses" means all direct and indirect costs of any type or nature whatsoever (including, without limitation, all reasonable attorneys' and experts' fees, costs of investigation and related disbursements) reasonably incurred by Indemnitee in connection with the investigation (whether formal or informal), settlement, defense or appeal of a Proceeding covered hereby or the establishment or enforcement of a right to indemnification under this Agreement, including without limitation in the case of an appeal the premium for, and other costs relating to, any costs bond or supercedes bond or other appeal bond or its equivalent.

(e) **Independent Legal Counsel**. "Independent Legal Counsel" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(i) hereof, who shall not have otherwise performed services for the Company or Indemnitee within the preceding three years (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other Indemnitees under similar indemnity agreements).

(f) **Other References**. References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

(g) **Proceeding**. "Proceeding" means any threatened, pending, or completed claim, suit, action, proceeding or alternative dispute resolution mechanism, or any hearing or investigation, whether civil, criminal, administrative, investigative or otherwise, including without limitation any situation which Indemnitee believes in good faith might lead to the institution of any such proceeding.

(h) **Reviewing Party**. "Reviewing Party" shall mean, subject to the provisions of Section 2(g), any person or body appointed by the Board in accordance with applicable law to review the Company's obligations hereunder and under applicable law, which may include a member or members of the Board, Independent Legal Counsel or any other person or body not a party to the particular Proceeding for which Indemnitee is seeking indemnification, as set forth in Section 2(i).

2. **Indemnification**.

(a) **Third Party Proceedings**. The Company shall defend, indemnify and hold harmless Indemnitee to the fullest extent permitted by the Utah Revised Business Corporation Act (the "Act") if Indemnitee is or was a party or is threatened to be made a party to any Proceeding (other than an action by or in the right of the Company) by reason of the fact that Indemnitee is or was or is claimed to be an Agent of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an Agent of the Company, against all Expenses and liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld)) actually and reasonably incurred by Indemnitee in connection with such Proceeding if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful.

(b) **Proceedings By or in the Right of the Company**. The Company shall defend, indemnify and hold harmless Indemnitee to the fullest extent permitted by the Act if Indemnitee was or is a party or is threatened to be made a party to any

Proceeding by or in the right of the Company or any subsidiary of the Company to procure a judgment in its favor by reason of the fact that Indemnitee is or was or is claimed to be an Agent of the Company, all Expenses and liabilities of any type whatsoever (including, but not limited to, legal fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld)), in each case to the extent actually and reasonably incurred by Indemnitee in connection with the defense or settlement of such Proceeding if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and its stockholders, except that no indemnification shall be made in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudicated by court order or judgment to be liable to the Company in the performance of Indemnitee's duty to the Company and its stockholders unless and only to the extent that the court in which such action or proceeding is or was pending shall determine upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses, which such court shall deem proper.

(c) **Presumptions; Burden of Proof**. In making any determination concerning Indemnitee's right to indemnification, there shall be a presumption that Indemnitee has satisfied the applicable standard of conduct, and the Company may overcome such presumption only by its adducing clear and convincing evidence to the contrary. For purposes of this Agreement, the termination of any Proceeding by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by this Agreement or applicable law. In addition, neither the failure of any Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified under this Agreement under applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. Any determination concerning Indemnitee's right to indemnification that is adverse to Indemnitee may be challenged by Indemnitee in the courts of the State of Utah. No determination by the Company (including without limitation by its directors or any Independent Legal Counsel) that Indemnitee has not satisfied any applicable standard of conduct shall be a defense to any claim by Indemnitee for indemnification or reimbursement or advance payment of Expenses by the Company hereunder or create a presumption that Indemnitee has not met any applicable standard of conduct.

(d) **Reliance as a Safe Harbor**. For purposes of this Agreement, and without creating any presumption as to a lack of good faith if the following circumstances do not exist, Indemnitee shall be deemed to have acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company if Indemnitee's actions or omissions to act are taken in good faith reliance upon the records of the Company, including its financial statements, or upon information, opinions, reports or statements furnished to Indemnitee by other Agents of the Company or any of its subsidiaries in the course of their duties, or by committees of the Board or by any other person (including legal counsel, accountants and financial advisors) as to matters Indemnitee reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the Company. In addition, the knowledge and/or actions, or failures to act, of any Agent of the Company shall not be imputed to Indemnitee for purposes of determining the right to indemnity hereunder.

(e) **Actions Where Indemnitee Is Deceased**. If Indemnitee was or is a party, or is threatened to be made a party, to any Proceeding by reason of the fact that Indemnitee is or was an Agent of the Company, or by reason of anything done or not

done by Indemnitee in any such capacity, and prior to, during the pendency of, or after completion of, such Proceeding, Indemnitee shall die, then the Company shall defend, indemnify and hold harmless the estate, heirs and legatees of Indemnitee against any and all Expenses and liabilities reasonably incurred by or for such persons or entities in connection with the investigation, defense, settlement or appeal of such Proceeding on the same basis as provided for Indemnitee in Sections 2(a) and 2(b) above.

(f) **Extent of Insurance**. The Expenses and liabilities covered hereby shall be net of any payments made by D&O Insurance carriers or others.

(g) **Review of Indemnification Obligations**. Notwithstanding the foregoing, in the event any Reviewing Party shall have determined (in a written opinion, in any case in which Independent Legal Counsel is the Reviewing Party) that Indemnitee is not entitled to be indemnified hereunder under applicable law: (i) the Company shall have no further obligation under Section 2(a) or Section 2(b) to make any payments to Indemnitee not made prior to such determination by such Reviewing Party; and (ii) the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid to Indemnitee to which Indemnitee is not entitled hereunder under applicable law; provided, however, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee is entitled to be indemnified hereunder under applicable law, any determination made by any Reviewing Party that Indemnitee is not entitled to be indemnified hereunder under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee's obligation to reimburse the Company for any Expenses shall be unsecured and no interest shall be charged thereon.

(h) **Indemnitee Rights on Unfavorable Determination; Binding Effect**. If any Reviewing Party determines that Indemnitee substantively is not entitled to be indemnified hereunder in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and the Company hereby consents to service of process and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party shall be conclusive and binding on the Company and Indemnitee.

(i) **Selection of Reviewing Party; Change in Control**. A determination, if required by applicable law, with respect to Indemnitee's entitlement to indemnification shall be made in accordance with the provisions of this paragraph (i). If there has not been a Change in Control, a Reviewing Party shall be selected by the Board, and if there has been such a Change in Control (other than a Change in Control which has been approved by a majority of the Board who were directors immediately prior to such Change in Control), any Reviewing Party with respect to all matters thereafter arising concerning the rights of Indemnitee to indemnification of Expenses under this Agreement or any other agreement or under the Company's Articles of Incorporation or Bylaws as now or hereafter in effect, or under any other applicable law, if desired by Indemnitee, shall be Independent Legal Counsel selected by Indemnitee and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be entitled to be indemnified hereunder under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to indemnify fully such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any other provision of this Agreement, the Company shall not be required

to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless: (i) the employment of separate counsel by one or more Indemnitees has been previously authorized by the Board in writing; or (ii) an Indemnitee shall have provided to the Company a written statement that such Indemnitee has reasonably concluded that there may be a conflict of interest between such Indemnitee and the other Indemnitees with respect to the matters arising under this Agreement.

3. **No Employment Rights**. Nothing contained in this Agreement is intended to create in Indemnitee any right to continued employment or service. Indemnitee specifically acknowledges that Indemnitee's employment with or services to the Company or any of its subsidiaries is at will and the Indemnitee may be discharged at any time for any reason, with or without cause, except as may be otherwise provided in any written employment agreement between Indemnitee and the Company (or any of its subsidiaries), other applicable formal severance policies duly adopted by the Board or, with respect to service as a director or officer of the Company, the Company's Articles of Incorporation and Bylaws, as applicable.

4. **Expenses; Indemnification Procedure**.

(a) **Advancement of Expenses**. The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or Proceeding referred to in Section 2(a) or Section 2(b) hereof (including amounts actually paid in settlement of any such Proceeding if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby.

(b) **Notice/Cooperation by Indemnitee**. Promptly after receipt by Indemnitee of notice of the commencement or threat of any Proceeding covered hereby, Indemnitee shall notify the Company of the commencement or threat thereof, provided that any failure to so notify shall not relieve the Company of any of its obligations hereunder, except to the extent that such failure prejudices the Company's ability to perform its obligations hereunder. Notice to the Company shall be directed to the Chief Executive Officer of the Company and shall be given in accordance with the provisions of Section 13(i) below. In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) **Notice to Insurers**. If, at the time of the receipt of a notice of a claim pursuant to Section 4(b) hereof, the Company has D&O Insurance (as defined in Section 7(a) below) in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(d) Indemnitee shall be entitled to retain one or more counsel from time to time selected by Indemnitee in Indemnitee's reasonable discretion to act as its counsel in and for the investigation, defense, settlement or appeal of each Proceeding. The Company shall not waive any privilege or right available to Indemnitee in any such Proceeding.

(e) The Company shall bear all reasonable fees and Expenses (including invoices for advance retainers) of such counsel, and all reasonable fees and Expenses invoiced by other persons or entities, in connection with the investigation, defense, settlement or appeal of each such Proceeding. Such fees and Expenses are referred to herein as "Covered Expenses."

(f) Until a determination to the contrary under Section 5 hereof is made, the Company shall advance all Covered Expenses in connection with each Proceeding. Indemnitee shall qualify for advances upon the execution and delivery to the Company of this Agreement which shall constitute an undertaking providing that Indemnitee undertakes to the fullest extent permitted by law to repay the advance if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final judgment, not subject to appeal, that Indemnitee is not entitled to be indemnified by the Company. No other form of undertaking shall be required other than the execution of this Agreement. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement.

(g) **Selection of Counsel**. In the event the Company shall be obligated hereunder to provide indemnification for or make any advancement of Expenses with respect to the Expenses of any Proceeding, the Company, if appropriate, shall be entitled to assume the defense of such Proceeding with counsel selected by the Company, subject to approval by Indemnitee (which approval shall not be unreasonably withheld), upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently retained by or on behalf of Indemnitee with respect to the same Proceeding; provided that: (i) Indemnitee shall have the right to employ Indemnitee's separate counsel in any such Proceeding at Indemnitee's expense; and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Proceeding, then the fees and expenses of Indemnitee's separate counsel shall be Expenses for which Indemnitee may receive indemnification or advancement of Expenses hereunder.

(h) Each advance to be made hereunder shall be paid by the Company to Indemnitee within ten (10) business days following delivery of a written request therefor by Indemnitee to the Company.

(a) The Company acknowledges the potentially severe damage to Indemnitee should the Company fail timely to make such advances to Indemnitee.

(b) The Company shall not settle any Proceeding if, as a result of such settlement, any fine or obligation is imposed on Indemnitee without Indemnitee's prior written consent.

5. **Determination of Right to Indemnification**.

(a) To the extent Indemnitee has been successful on the merits or otherwise in defense of any Proceeding, claim, issue or matter covered hereby, Indemnitee need not repay any of the Expenses advanced in connection with the investigation, defense or appeal of such Proceeding.

(b) Indemnitee shall have the right to advancement by the Company prior to the final disposition of any Proceeding of any and all Expenses relating to, arising out of or resulting from any Proceeding paid or incurred by Indemnitee or which Indemnitee determines are reasonably likely to be paid or incurred by Indemnitee.

(c) Subject to the provisions of Section 2(g), notwithstanding a determination by a Reviewing Party or a court that Indemnitee is not entitled to indemnification with respect to a specific Proceeding, Indemnitee shall have the right to apply to the courts of the State of Utah for the purpose of enforcing Indemnitee's right to indemnification pursuant to this Agreement.

(d) Subject to the provisions of Section 2(i), the Company shall indemnify Indemnitee against all Expenses reasonably incurred by Indemnitee in connection with any Proceeding under Sections 5(b) or 5(c) and against all Expenses reasonably incurred by Indemnitee in connection with any other Proceeding between the Company and Indemnitee involving the interpretation or enforcement of the rights of Indemnitee under this Agreement unless a court of competent jurisdiction finds that each of the material claims and/or defenses of Indemnitee in any such Proceeding were frivolous or made in bad faith.

(e) The Company hereby agrees to indemnify Indemnitee to the fullest extent permitted by the Act, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Articles of Incorporation, the Company's Bylaws or by statute. In the event of any change after the date of this Agreement to the Act or in any applicable law, statute or rule which expands the right of a Utah corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change to the Act or in any applicable law, statute or rule which narrows the right of a Utah corporation to indemnify its Agent, such change, to the extent not otherwise required by the Act or such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 9 hereof.

(f) **Nonexclusivity**. The indemnification and the payment of Expense advances provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Company's Articles of Incorporation, its Bylaws, any other agreement, any vote of shareholders or disinterested directors, the Act, or otherwise. The indemnification and the payment or advancement of Expenses provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though subsequent thereto Indemnitee may have ceased to serve in such capacity.

(g) **No Duplication of Payments**. The Company shall not be liable under this Agreement to make any payment in connection with any Proceeding to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Company's Articles of Incorporation, Bylaws or otherwise) of the amounts otherwise payable hereunder.

(h) **Partial Indemnification**. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Proceeding, but not,

however, for all of the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

6. **Mutual Acknowledgement**. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or public policy may override applicable state law and prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. For example, the Company and Indemnitee acknowledge that the Securities and Exchange Commission (the "SEC") has taken the position that indemnification is not permissible for liabilities arising under certain federal securities laws, and federal legislation prohibits indemnification for certain ERISA violations. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the SEC to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. **Officer and Director Liability Insurance**.

(a) The Company hereby covenants and agrees with Indemnitee that, subject to Section 7(b), the Company shall obtain and maintain in full force and effect directors' and officers' liability insurance ("D&O Insurance"), in reasonable amounts as the Board shall determine from established and reputable insurers with an AM Best rating of A.VI or better, but no less than the amounts in effect upon initial procurement of the D&O Insurance. In all policies of D&O Insurance, Indemnitee shall be named as an insured.

(b) Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain D&O Insurance if the Board determines in good faith that the premium costs for such insurance are (i) disproportionate to the amount of coverage provided after giving effect to exclusions, and (ii) substantially more burdensome to the Company than the premiums charged to the Company for its initial D&O Insurance.

(c) To the extent the Company maintains liability insurance applicable to directors, officers, employees, agents or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, agents or fiduciaries, if Indemnitee is not an officer or director but is a key employee, agent or fiduciary.

8. **Severability**. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 8. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have been invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

1. **Exceptions**. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) **Claims Initiated by Indemnitee**. To indemnify or advance expenses to Indemnitee with respect to Proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, other than: (i) Proceedings under Sections 5(b) or 5(c); (ii) Proceedings brought to establish or enforce a right to indemnification under this Agreement or the provisions of

the Company's Articles of Incorporation or Bylaws unless a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such Proceeding were not made in good faith or were frivolous; or (iii) proceedings or claims instituted by Indemnitee with the approval by the Board;

(b) **Unauthorized Settlement**. To indemnify Indemnitee under this Agreement for any amounts paid in settlement of a Proceeding covered hereby without the prior written consent of the Company to such settlement, which consent will not be unreasonably withheld provided that the Company's consent is not required if the Company is refusing to indemnify or advance Expenses to Indemnitee;

(c) **Insured Claims**. To indemnify Indemnitee for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) to the extent such expenses or liabilities have been paid directly to Indemnitee by an insurance carrier under a policy of officers' and directors; liability insurance maintained by the Company; or

(d) **Claims Under Section 16(b)**. To indemnify Indemnitee for expenses or the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

10. **Witness Expenses**. The Company agrees to compensate Indemnitee for the reasonable value of Indemnitee's time spent, and to reimburse Indemnitee for all Expenses (including reasonable attorneys' fees and travel costs) reasonably incurred by Indemnitee, in connection with being a witness, or if Indemnitee is threatened to be made a witness, with respect to any Proceeding, by reason of Indemnitee serving or having served as an Agent of the Company.

11. **Attorneys' Fees**. In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including reasonable attorneys' fees, incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, incurred by Indemnitee in defense of such action (including with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

12. **Duration**. All agreements and obligations of the Company contained herein shall continue during the period that Indemnitee is an Agent of the Company and shall continue thereafter (a) so long as Indemnitee may be subject to any possible claim for which Indemnitee may be indemnified hereunder (including any rights of appeal thereto) and (b) throughout the pendency of any Proceeding (including any rights of appeal thereto) commenced by Indemnitee to enforce or interpret Indemnitee's rights under this Agreement, even if, in either case, Indemnitee may have ceased to serve in such capacity at the time of any such Proceeding.

13. **Miscellaneous.**

(a) **Governing Law**. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Utah, without giving effect to principles of conflict of law.

(b) **Consent to Jurisdiction**. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Utah for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement **and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the federal and state courts located in the State of Utah in and for Salt Lake County, which shall be the exclusive and only proper forum for adjudicating such a claim**.

(c) **Entire Agreement; Enforcement of Rights**. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(d) **Construction**. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) **Counterparts**. This Agreement may be signed in counterparts. This Agreement constitutes a separate agreement between the Company and Indemnitee and may be supplemented or amended as to Indemnitee only by a written instrument signed by the Company and Indemnitee, with such amendment binding only the Company and Indemnitee. All waivers must be in a written document signed by the party to be charged. No waiver of any of the provisions of this Agreement shall be implied by the conduct of the parties. A waiver of any right hereunder shall not constitute a waiver of any other right hereunder.

(f) **Interpretation of Agreement**. This Agreement shall be interpreted and enforced so as to provide indemnification to Indemnitee to the fullest extent now or hereafter permitted by the Act.

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

(h) **Continuation of Indemnity; Binding Effect**. Indemnitee’s rights hereunder shall continue after Indemnitee has ceased acting an Agent of the Company and the benefits hereof shall inure to the benefit of the heirs, executors and administrators of Indemnitee. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

(i) **Notices**. All notices, demands, consents, requests, approvals and other communications required or permitted hereunder shall be in writing and shall be deemed to have been properly given if hand delivered (effective upon receipt or when

refused), or if sent by a courier freight prepaid (effective upon receipt or when refused), in the case of the Company, at the addresses listed below, or to such other addresses as the parties may notify each other in writing.

To Company: Merit Medical Systems, Inc.
Attention: Chief Executive Officer
1600 West Merit Parkway
South Jordan, Utah 84095

To Indemnitee: At Indemnitee's residence address and facsimile number on the records of the Company from time to time.

(j) **Evidence of Coverage**. Upon request by Indemnitee, the Company shall provide evidence of the liability insurance coverage required by this Agreement. The Company shall promptly notify Indemnitee of any change in the Company's D&O Insurance coverage.

[*Remainder of Page Intentionally Left Blank; Signatures appear on the following page*.]

The parties hereto have agreed and accept this Agreement as of the day and year set forth on the first page of this Agreement.

MERIT MEDICAL SYSTEMS, INC.

By: /s/ Fred P. Lampropoulos
Name: Fred P. Lampropoulos
Title: Chief Executive Officer

INDEMNITEE:

_____

[ ], an individual

[*Signature Page to Indemnification Agreement*]

Exhibit 10.34

Asset Purchase Agreement

by and among

VASCULAR INSIGHTS, LLC,

VI MANAGEMENT, INC.,

AND

MERIT MEDICAL SYSTEMS, INC.

December 14, 2018

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ASSET PURCHASE AGREEMENT

This **Asset Purchase Agreement** (this "Agreement") is entered into as of December 14, 2018, by and among Vascular Insights, LLC, a Delaware limited liability company ("VI"), and VI Management, Inc., a Massachusetts corporation ("Management" and, collectively with VI, the "Sellers"), and Merit Medical Systems, Inc., a Utah corporation ("Purchaser"). Capitalized terms used herein but not defined shall have the meaning ascribed to them in Exhibit A.

WHEREAS, the parties wish to provide for the sale and transfer to Purchaser of substantially all of Sellers' assets, including but not limited to, all of the assets of the Sellers owned, licensed, used or held for use by the Sellers in connection with, relating to or necessary for the operation of the business of Sellers of designing, developing, manufacturing and marketing the ClariVein®IC system and the ClariVein®OC system, which are specialty infusion and occlusion catheter systems with rotating wire tips designed for the controlled 360-degree dispersion of physician-specified agents to the targeted treatment area (the "Business"), in each case, on the terms and subject to the conditions set forth in this Agreement; and

WHEREAS, VI directly and indirectly through Management operates the Business.

NOW, THEREFORE, the parties to this Agreement, intending to be legally bound, agree as follows:

1. Purchase and Sale of Purchased Assets; Related Transactions

1.1 Sale of Purchased Assets; Excluded Assets; Excluded Liabilities; Assumed Liabilities

(a) Subject to the terms and conditions set forth in this Agreement, each Seller shall sell, assign, transfer convey and deliver the Purchased Assets to Purchaser, at the Closing, free and clear of any Encumbrances (other than Permitted Encumbrances), on the terms and subject to the conditions set forth in this Agreement. For purposes of this Agreement, the "Purchased Assets" shall mean all of the assets, properties and rights of the Sellers (but, for the avoidance of doubt, excluding the Excluded Assets), including, without limitation, the following:

(i) training materials and equipment, mechanical and spare parts, trade fixtures, production supplies, molds, tools, tooling and dyes;

(ii) all sales and marketing materials (including all product literature, advertising materials, customer lists and price lists), all current and prospective client lists and customer data of the Sellers and all customer relationship management (CRM) data;

(iii) all prepayments, security deposits, rebates, refunds, prepaid expenses, rights of set-off, right of recoupment, and charges associated with Purchased Assets, including as related to the sales and marketing of Business Products and Services;

(iv) all Seller Intellectual Property and Seller Technology, in each case including the applications and registrations related thereto and including all income or payments receivable in connection therewith to the extent generated following the Closing, and including all damages and payments for infringement or misappropriation of Seller Transferred Intellectual Property and Seller Technology (whether past or future), the right to recover for infringements or misappropriations of Seller Intellectual Property and Seller Technology (whether past or future), and any and all corresponding rights that have been secured throughout the world with respect to any Seller Intellectual Property and Seller Technology, and all claims or causes of action or damages in connection therewith or arising therefrom (whether past or future) and all goodwill and going concern value associated therewith relating to the Business, the Business Products and Services (collectively, the "Seller Transferred Intellectual Property");

(v) copies of the Registrations, supported by and including: (A) documents in the possession of Sellers evidencing such Registrations issued to the Sellers by a Governmental Body, in each case to the extent assignable with or without requiring the consent of the issuing Governmental Body; (B) all related Registration applications, clinical research and trial agreements, data results and records of

clinical trials and marketing research, all other clinical documents required to be kept by applicable Legal Requirements, all documents required to be kept under any other Legal Requirement regulating the design or manufacture of Medical Devices, design history files, technical files, drawings, manufacturing, packaging and labeling specifications, validation documentation, packaging specifications, quality control standards and other documentation, research tools, laboratory notebooks, files and correspondence with regulatory agencies and quality reports and all relevant pricing information and correspondence with Governmental Bodies with respect to such pricing matters, in each case; and (C) any and all documentation related to the design, development, manufacture, test, release, distribution, worldwide market registration and clearance or approval, and post market surveillance and history of usage of such products and proposed future products, as well as all quality system documentation;

(vi) all Contracts, including Intellectual Property Licenses, listed on Schedule 1.1(a)(vi) (the "Purchased Contracts");

(vii) all inventories, including raw materials, works in process, semi-finished and finished products, stores, replacement and spare parts, packaging materials, operating supplies and inventory on consignment, in transit or deposited in a warehouse;

(viii) all claims, causes of action, choses in action, rights of recovery and rights of set-off of any kind attributable to the Purchased Assets or Assumed Liabilities (including all damages and payments for future infringement or misappropriation of the Seller Intellectual Property and any and all corresponding rights that may be secured throughout the world with respect to the Seller Intellectual Property), whether arising by way of counterclaim or otherwise, except to the extent any of the foregoing exclusively relate to (x) Excluded Assets or Excluded Liabilities, or (y) intercompany receivables between Sellers or a Seller and any of its Affiliates;

(ix) all books, records, files, emails, correspondence, and data (the "Transferred Data"), including, but not limited to books of account, ledgers and general, financial and accounting records, machinery and equipment maintenance files, customer lists, customer purchasing histories, price lists, distribution lists, supplier lists, production data, quality control records and procedures, customer complaints and inquiry files, research and development files, records and data (including all correspondence with any Governmental Body), sales material and records (including pricing history, total sales, terms and conditions of sale, sales and pricing policies and practices), strategic plans, internal financial statements, marketing and promotional surveys, material and research and files relating to the Seller Intellectual Property and the Intellectual Property Licenses, and books, records, files and data relating to Taxes, except to the extent any of the foregoing relate exclusively to (x) Excluded Assets or Excluded Liabilities, or (y) intercompany receivables between Sellers or a Seller and any of its Affiliates;

(x) all permits (including, without limitation, the authorizations set forth as items 1-4 on Section 2.13 of the Disclosure Schedule), licenses, certifications, authorizations, registrations, variances, approvals and similar rights from all permitting, licensing, accrediting and certifying agencies (including any Governmental Body), and the rights to all data and records held by such permitting, licensing and certifying agencies (including any Governmental Body);

(xi) all computer software data and information, and all related hardware, except to the extent any of the foregoing relate exclusively to (x) Excluded Assets or Excluded Liabilities, or (y) intercompany receivables between Sellers or a Seller and any of its Affiliates; and

(xii) all goodwill and going concern value of the Business and Purchased Assets.

(b) Notwithstanding anything to the contrary set forth in Section 1.1(a), in no event shall Purchaser purchase from Sellers, and in no event shall Sellers sell, convey, assign, transfer or deliver to Purchaser, any of the following assets of Sellers (the "Excluded Assets"):

(i) tangible personal property and interests therein, including machinery, equipment, owned and leased motor vehicles, mobile telephones, computer hardware and related software in connection with Business Employees that are not Transferred Employees, other computer equipment, communications equipment, PDA bar code readers, fixtures, furniture, furnishings, office equipment and supplies and other miscellaneous supplies (excluding any of the foregoing identified as a Purchase Asset in Section 1.1(a));

(ii) all cash and cash equivalents, securities and negotiable instruments on hand, in lock boxes, in financial institutions or elsewhere, including any cash residing in any collateral cash account securing any obligation or contingent obligation;

(iii) all prepayments, security deposits, rebates, refunds, prepaid expenses, rights of set-off, right of recoupment, and charges not principally associated with the Purchased Assets (including any such item relating to the payment of Taxes);

(iv) all insurance policies and benefits, including the right to receive amounts under any insurance policy (whether in the form of refunds or premiums previously paid, in the form of claims paid, or otherwise), or the right to make claims under any insurance policy;

(v) all income or payments receivable (but excluding any damages, payments, rights, claims or causes of action identified in Section 1.1(a)(iv)) in connection with Seller Intellectual Property therewith to the extent generated prior to Closing;

(vi) all intercompany receivables between Sellers, or between any Seller and any Affiliate of such Seller, and all accounts, notes and other receivables of the Business prior to Closing, whether current or noncurrent, including all file documentation related to such accounts, notes and other similar receivables, including invoices, shipping documents, communications and correspondence submitted to or received from customers related to such sales;

(vii) each Seller's Organizational Documents, all qualifications to do business as a foreign entity, all arrangements with registered agents, all minute books, stock records, stock ledgers, transfer books and blank share or equity ownership certificates, VI's ownership interest in Management and all other documents related to the organization, maintenance and existence of such Seller as a corporation or limited liability company, as applicable;

(viii) all of Sellers' rights and interests arising under the Transaction Documents or any other Contract, instrument or document delivered or executed in connection with the Transactions;

(ix) all books, records, files, emails, correspondence, and data other than Transferred Data;

(x) all refunds and credits of Taxes of the Sellers along with any returns, records, reports, supporting materials or other similar items reflecting or relating to Sellers' Taxes;

(xi) Sellers' real property lease;

(xii) all Plans and assets attributable thereto;

(xiii) each Seller's rights to claim, assert, waive or terminate attorney-client privilege with respect to any communication, email, document or information (whether in oral, written or electronic form, and including, without limitation, all internal communications of any officer, manager, employee or advisor of a Seller) to or from a Seller or any of its officers, managers, employees or advisors with any attorney or law firm regarding or relating to any of the Transaction Documents or the Transactions contemplated hereby or thereby;

(xiv) all Contracts that are not identified on Schedule 1.1(a)(vi); and

(xv) the other assets listed on Schedule 1.1(b)(xv).

(c) At the Closing, on the terms and subject to the conditions set forth in this Agreement, Purchaser shall assume and agree to perform and discharge only the following Liabilities (but, for the avoidance of doubt, excluding the Excluded Liabilities) (the "Assumed Liabilities"), and no other Liabilities:

(i) the Warranty Obligations; and

(ii) all Liabilities in respect of the Purchased Contracts arising or accruing after the Closing Date, but only to the extent that a Seller's rights and benefits under such Purchased Contracts are validly assigned to Purchaser pursuant to this Agreement.

(d) Notwithstanding anything to the contrary contained in this Agreement, in no event shall Purchaser assume or be liable for, and Purchaser will have no responsibility related to, any Liabilities of a Seller of any kind or nature, other than the Assumed Liabilities (all such Liabilities, other than Assumed Liabilities, collectively, the "Excluded Liabilities"). Sellers retain sole liability for all Excluded Liabilities and shall pay or otherwise fully discharge all Excluded Liabilities, including any Pre-Closing Taxes.

1.2 Purchase Price and Payment As consideration for the sale and contribution by the Sellers of the Purchased Assets to Purchaser, Purchaser shall (i) assume the Assumed Liabilities, (ii) pay to VI the aggregate amount of (a) $40,000,000 (the "Base Cash Amount"), less (b) $4,000,000 (the "Escrow Amount"), which Escrow Amount shall be deposited into an escrow account (the "Escrow Account") established pursuant to the terms of an Escrow Agreement entered into on the date hereof among VI, the Purchaser and U.S. Bank National Association, as escrow agent (the "Escrow Agent") in the form attached hereto as Exhibit B (the "Escrow Agreement"), the "Closing Date Cash Purchase

Price"), and (iii) pay to VI any Contingent Payments pursuant to Section 1.4 (such payments made to VI in the aggregate, the "Cash Consideration").

1.3 Inventory Adjustment.

(a) Inventory Adjustment.

(i) Within sixty (60) days after the Closing Date, Purchaser shall prepare and deliver to VI a statement (the "Inventory Statement") setting forth its calculation of the book value of the Inventory calculated in accordance with GAAP as of the Closing Date (such value, the "Inventory Amount").

(ii) The "Inventory Adjustment" shall be an amount equal to the Inventory Amount minus $1,097,366 (the "Target Inventory Amount"). If the Inventory Adjustment is a positive number, Purchaser shall pay to VI an amount equal to the Inventory Adjustment. If the Inventory Adjustment is a negative number, Seller and Purchaser shall immediately execute a joint instruction to the Escrow Agent directing the Escrow Agent to pay to Purchaser an amount equal to the absolute value of the Inventory Adjustment out of the Escrow Fund (as defined in the Escrow Agreement).

(b) Examination and Review.

(i) Examination. After receipt of the Inventory Statement, VI shall have thirty (30) days (the "Review Period") to review the Inventory Statement. During the Review Period, VI shall have reasonable access to the relevant books and records of Purchaser, the personnel and Representatives of, and work papers prepared by, Purchaser to the extent that they relate to the Inventory Statement as VI may reasonably request for the purpose of reviewing the Inventory Statement and to prepare a Statement of Objections (defined below), *provided, that* such access shall be in a manner that does not interfere with the normal business operations of Purchaser.

(ii) Objection. On or prior to the last day of the Review Period, VI may object to the Inventory Statement by delivering to Purchaser a written statement setting forth VI's objections in reasonable detail, indicating each disputed item or amount and the basis for VI's disagreement therewith (the "Statement of Objections"). If VI fails to deliver the Statement of Objections before the expiration of the Review Period, the Inventory Statement and the Inventory Adjustment, as the case may be, reflected in the Inventory Statement shall be deemed to have been accepted by VI. If VI delivers the Statement of Objections before the expiration of the Review Period, Purchaser and VI shall negotiate in good faith to resolve such objections within thirty (30) days after the delivery of the Statement of Objections (the "Resolution Period"), and, if the same are so resolved within the Resolution Period, the Inventory Adjustment and the Inventory Statement, with such changes as agreed to in writing by Purchaser and VI, shall be final and binding.

(iii) Resolution of Disputes. If VI and Purchaser fail to reach an agreement with respect to all of the matters set forth in the Statement of Objections before expiration of the Resolution Period, then any amounts remaining in dispute (the "Disputed Amounts"; any amounts not so disputed, the "Undisputed Amounts") shall be submitted for resolution to the Chicago, Illinois office of Grant Thornton LLP or, if Grant Thornton LLP is unable to serve, Purchaser and VI shall appoint by mutual agreement the office of an impartial nationally recognized firm of independent certified public accountants (the "Independent Accounting Firm") who, acting as experts and not arbitrators, shall resolve the Disputed Amounts only and make any adjustments to the Inventory Adjustment, as the case may be, and the Inventory Statement. The parties hereto agree that all adjustments shall be made without regard to materiality. The Independent Accounting Firm shall only decide the specific items under dispute by the parties and their decision for the Disputed Amount must be within the range of values assigned to each such item in the Inventory Statement and the Statement of Objections, respectively.

(iv) Fees of the Independent Accounting Firm. The fees and expenses of the Independent Accounting Firm shall be paid by VI, on the one hand, and Purchaser, on the other hand, as follows: (a) Purchaser shall pay a portion of such fees and expenses equal to the quotient of the amount awarded to VI by the Independent Accounting Firm out of the Disputed Amount, divided by the Disputed Amount; and (b) VI shall pay all such fees and expenses not required to be paid by Purchaser in subsection (a) hereof.

(v) Determination by the Independent Accounting Firm. The Independent Accounting Firm shall make a determination as soon as practicable within thirty (30) days (or such other time as the parties hereto shall agree in writing) after their engagement, and their resolution of the Disputed Amounts

and their adjustments to the Inventory Statement and/or the Inventory Adjustment shall be conclusive and binding upon the parties hereto.

(vi) Payments of Inventory Adjustment. Except as otherwise provided herein, any payment of the Inventory Adjustment, together with interest calculated as set forth below, shall be due (A) within five (5) Business Days of acceptance of the applicable Inventory Statement or (B) if there are Disputed Amounts, then within five (5) Business Days of the resolution described in clause (ii) above, or clause (v) above, as applicable. If Purchaser is required to pay the Inventory Adjustment, it shall be paid by Purchaser to VI by wire transfer of immediately available funds to such account as is directed by VI. If Seller is required to pay the Inventory Adjustment, Seller and Purchaser shall immediately execute a joint instruction to the Escrow Agent directing the Escrow Agent to pay to Purchaser an amount equal to the absolute value of the Inventory Adjustment out of the Escrow Fund.

(vii) Adjustments for Tax Purposes. Any payments made pursuant to Section 1.3 shall be treated as an adjustment to the amounts set forth in Section 1.2 by the parties for Tax purposes, unless otherwise required by Law

1.4 Additional Payments.

(a) Contingent Payments. As additional consideration for the Transactions, but subject to the set-off rights of Purchaser pursuant to Section 1.4(e)(iii) and Section 4 hereof, if applicable, after the Closing, Purchaser may be required to make certain contingent payments (the "Contingent Payments") to VI in accordance with the provisions of this Section 1.4. The Contingent Payments shall include the First Sales Contingent Payment and the Second Sales Contingent Payment, but only to the extent that any of such payments becomes payable in accordance with this Section 1.4.

(b) First Sales Contingent Payment. Subject to the set-off rights of Purchaser pursuant to Section 1.4(f) and Section 4 hereof, if during the period beginning on the Closing Date and ending on December 31, 2023 (the "Contingent Payment Period"), aggregate Worldwide Net Sales of the Systems for such period determined as of the end of any calendar quarter exceed $15,000,000, Purchaser shall make a Contingent Payment (the "First Sales Contingent Payment") in an amount (the "First Sales Contingent Payment Amount") equal to Ten Million Dollars ($10,000,000).

(c) Second Sales Contingent Payment. Subject to the set-off rights of Purchaser pursuant to Section 1.4(f) and Section 4 hereof, if, during the Contingent Payment Period, aggregate Worldwide Net Sales of the Systems for such period determined as of the end of any calendar quarter exceed $20,000,000, Purchaser shall make a Contingent Payment (the "Second Sales Contingent Payment") in an amount (the "Second Sales Contingent Payment Amount" and, together with the First Sales Contingent Payment Amount, the "Contingent Payment Amounts" and each, a "Contingent Payment Amount") equal to Ten Million Dollars ($10,000,000). For the avoidance of doubt, the Second Sales Contingent Payment is in addition to and not duplicative of the First Sales Contingent Payment, and the same amounts included in Worldwide Net Sales of the Systems shall apply for purposes of determining whether each milestone is achieved.

(d) Sales Contingent Payments.

(i) Sales Contingent Payment Certificates. Within forty-five (45) days following each calendar quarter during the Contingent Payment Period, Purchaser shall deliver to VI a certificate (each, a "Sales Contingent Payment Certificate"), setting forth Purchaser's determination of the Worldwide Net Sales of the Systems for each such calendar quarter and for the period beginning on the first day of the Contingent Payment Period and ending on the last day of such calendar quarter. Purchaser shall not be required to deliver a Sales Contingent Payment Certificate after the Second Sales Contingent Payment has been made.

(ii) Audit Rights; Objection Process. VI shall have a period of thirty (30) calendar days (the "Contingent Objection Period") following the delivery of each Sales Contingent Payment Certificate in which to provide written notice to Purchaser of any objections thereto (the "Contingent Objection Notice"). During the Contingent Objection Period, Purchaser hereby grants VI and its accountants (subject to any such accountant executing a non-disclosure agreement in respect of confidential information with respect to such inquiry in customary form and substance) the right to examine the books and records

of the Purchaser of Worldwide Net Sales of the Systems for the Contingent Payment Period, at the location of such records on prior written notice of at least three (3) days for the purpose of verifying the amount of Worldwide Net Sales for the Contingent Payment Period or applicable portion thereof with respect to which such Sales Contingent Payment Certificate has been delivered (the "Contingent Payment Audit"). For the purpose of conducting a Contingent Payment Audit, VI may hire, at its expense, an auditor or attorney of its choosing to assist in such examination. VI shall have access to such books and records during normal business hours commencing on the date on which access to such books and records is made available to VI and concluding upon the end of the Contingent Objection Period; provided, that any review of such books and records conducted on Purchaser's premises shall be completed within fourteen (14) days from commencement of such review. Any Contingent Objection Notice shall set forth in reasonable detail the specific item set forth on the Contingent Payment Certificate to which each such objection relates and the specific basis for each such objection. The Contingent Payment Certificate shall be deemed to be accepted by the Sellers, and shall become final and binding on the parties on the later of the expiration of the Contingent Objection Period or the date on which all objections have been resolved by the parties or the Independent Accounting Firm. If VI delivers any such Contingent Objection Notice within the Contingent Objection Period, then VI and Purchaser shall attempt in good faith to resolve any dispute concerning the item(s) subject to such Contingent Objection Notice. If VI and Purchaser do not resolve any dispute arising in connection with the calculations relating to the Contingent Payment Certificate within thirty (30) calendar days after the date of delivery of the Contingent Objection Notice, which thirty (30) calendar day period may be extended by written agreement of Purchaser and VI (such period, as it may be extended, the "Contingent Initial Resolution Period"), such dispute shall be resolved in accordance with the procedures set forth in Section 1.4(d)(iii) below.

(iii) If VI and Purchaser have not been able to resolve a dispute arising in connection with the calculation of Worldwide Net Sales of the Systems for the Contingent Payment Period or applicable portion thereof with respect to which such Sales Contingent Payment Certificate has been delivered, either party may submit such dispute to, and such dispute shall be resolved fully, finally and exclusively through the use of an Independent Accounting Firm. In connection with the dispute resolution process, each of VI and Purchaser shall provide to the Independent Account Firm its calculation of Worldwide Net Sales of the Systems for the relevant calendar quarter, and the fees and expenses of the Independent Accounting Firm shall be paid fifty percent (50%) by VI, on the one hand, and fifty percent (50%) by Purchaser, on the other hand, unless the Worldwide Net Sales of the Systems as determined by the Independent Accounting Firm are more than 20% more, or less, than the mid-point between the calculation provided by VI and the calculation provided by Purchaser; if the Worldwide Net Sales as determined by the Independent Account Firm are more than 20% more, or less, than such mid-point, all of the fees and expenses of the Independent Account Firm shall be paid by the party whose calculation was furthest from the Worldwide Net sales determined by the Independent Accounting Firm. Any dispute resolution proceeding shall be commenced within thirty (30) calendar days after the expiration of the Contingent Initial Resolution Period. In the event that the Contingent Payment Audit results in an increase to Worldwide Net Sales of the Systems for the Contingent Payment Period or applicable portion thereof with respect to which such Sales Contingent Payment Certificate has been delivered that exceeds ten percent (10%) of Purchaser's determination of Worldwide Net Sales of the Systems for such period as reflected in such Sales Contingent Payment Certificate, Purchaser shall additionally reimburse the reasonable third party fees and expenses of the Sellers related to the Contingent Payment Audit, otherwise the Sellers shall bear all of their fees and expenses related to the Contingent Payment Audit. The Independent Accounting Firm shall determine (and written notice thereof shall be given to VI and Purchaser) as promptly as practicable, but in any event within sixty (60) calendar days following its appointment, based solely on written submissions detailing the disputed items submitted to it by both parties, only (x) whether Purchaser's calculation of the Worldwide Net Sales of the Systems for the Contingent Payment Period or portion thereof, as applicable, were accurate and prepared in accordance with the terms of this Agreement, and (y) whether and to what extent (if any) the Worldwide Net Sales of the Systems for the Contingent Payment Period or portion thereof, as applicable, require adjustment, including the basis therefor, and the Independent Accounting Firm shall make no other determinations or calculations. For the avoidance of doubt, the Independent Accounting Firm shall not be entitled to impose penalties or interest on any party. All

negotiations pursuant to this Section 1.4(d)(iii) shall be treated as compromise and settlement negotiations for purposes of Rule 408 of the Federal Rules of Evidence and comparable other Legal Requirements including state rules of evidence, and all negotiations, submissions to the Independent Accounting Firm, and dispute resolution proceedings under this Section 1.4(d)(iii) shall be treated as confidential information. The Independent Accounting Firm shall be bound by a mutually agreeable confidentiality agreement. The procedures of this Section 1.4(d)(iii) are exclusive and, except as set forth below, the determination of the Independent Accounting Firm shall be final and binding on the parties. The decision rendered pursuant to this Section 1.4(d)(iii) may be filed as a judgment in any court of competent jurisdiction. Either party may seek specific enforcement or take other necessary legal action to enforce any decision under this Section 1.4(d)(iii). The other party's only defense to such a request for specific enforcement or other legal action shall be fraud by or upon the Independent Accounting Firm. Absent such fraud, such other party shall reimburse the party seeking enforcement for its expenses related to such enforcement.

(e) Purchaser's Obligations.

(i) During the Contingent Payment Period, Purchaser shall, and shall cause its Subsidiaries to, use commercially reasonable efforts, consistent with Purchaser's ordinary course of conduct to market and sell the Systems in those jurisdictions where they have been approved for sale; provided, that whether certain efforts by Purchaser are deemed to be "commercially reasonable" with respect to the Systems shall be determined in light of all relevant factors, taken as a whole, including but not limited to past sales and future market potential of the Systems (including reasonably anticipated and actual profit margin), the level of regulatory approval that may be available for the Systems (including but not limited to the extent of the indications for which the Systems have been approved), the level of reimbursement that is available for the Systems, the safety and efficacy of the Systems, the level of Intellectual Property protection of the Systems, the presence of third-party Intellectual Property, technology and products that may impact the marketability of the Systems, the effectiveness and pricing of alternative technologies on the market for the Systems, obsolescence of the Systems, changes in conditions in any market relevant to the manufacturing, marketing or sale of the Systems and related reimbursements, the presence or absence of particularly difficult manufacturing issues, and the likely availability and cost of necessary raw materials. For purposes of determining whether or not Purchaser is complying with its obligations under the first sentence of this Section 1.4(e), Purchaser's marketing and sales efforts for the Systems shall be considered in the aggregate. Purchaser shall not be deemed to be in breach of this Section 1.4(e) for any particular period unless (A) Purchaser's marketing and sales efforts with respect to the Systems during such period, taken as a whole, are not commercially reasonable based upon the factors identified above, (B) the Seller Designee has reasonably identified to Purchaser by written notice the manner in which he or she believes the Purchaser's marketing and sales efforts are not commercially reasonable, and (B) Purchaser's marketing and sales efforts continue to not be commercially reasonable more than sixty (60) days following such written notice from the Seller Designee.

(ii) Without limiting the foregoing, during the Contingent Payment Period, Purchaser shall not, and shall cause its Subsidiaries not to, take any actions in bad faith and in the sales and marketing of the Systems or the operation of the Purchaser, which are undertaken with the primary purpose of avoiding or delaying any Contingent Payments.

(iii) During the Contingent Payment Period, Purchaser shall designate an individual management employee representative who is associated with the marketing and sale of the Systems who will be available via telephone, video or in person conference with a designee of the Sellers, who initially shall be James (Chip) Draper (the "Seller Designee") and who has signed a nondisclosure agreement in the form and substance reasonably acceptable to the Purchaser, on a semiannual basis, to provide an update on progress toward the marketing and sale of the Systems, and who will provide such other relevant information related to the marketing and sale of the Systems during such update conference, as is reasonably requested by the Sellers' designee. Any replacement designee of the Sellers shall be subject to the approval of Purchaser, such approval not to be unreasonably withheld, conditioned or delayed.

(f) Right of Set-Off. Notwithstanding anything to the contrary in this Agreement, the obligation of Purchaser to make any Contingent Payment shall be subject to the right of Purchaser to reduce the amount of such Contingent Payment pursuant to Section 4. Except to the extent specifically provided in Section 4, there shall be no set-off.

(g) Payment of Contingent Payments. Within ten (10) Business Days of the earlier to occur of (i) the delivery of a Sales Contingent Payment Certificate that indicates Worldwide Net Sales of the Systems have exceeded $15,000,000 or $20,000,000 during the Contingent Payment Period, and (ii) the date on which a dispute regarding the amount of Worldwide Net Sales of the Systems for the Contingent Payment Period or applicable portion thereof is resolved pursuant to Section 1.4(d) and the result of such resolution is a determination that the Worldwide Net Sales of the Systems have exceeded $15,000,000 or $20,000,000 during the Contingent Payment Period, Purchaser shall deliver to VI the Contingent Payment Amount for such Sales Contingent Payment.

(h) No Security. VI and Purchaser understand and agree that (i) the rights to receive any Contingent Payment shall not be represented by any form of certificate or other instrument, are not transferable, and do not constitute an equity or ownership interest in Purchaser, (ii) VI shall not have any rights as a securityholder of Purchaser as a result of VI's right to receive any Contingent Payment hereunder, and (iii) no interest is payable with respect to any Contingent Payment.

(i) Tax Treatment of Contingent Payments. The parties hereto acknowledge and agree that each Contingent Payment is intended to constitute a payment of additional purchase price for U.S. federal and applicable state and local income Tax purposes (other than the portion thereof consisting of imputed interest or original issue discount) and each Contingent Payment is intended to be eligible to be reported by each Seller as a payment pursuant to an "installment sale" within the meaning of Section 453 of the Code. No party shall file any Tax Return or otherwise take any position inconsistent with the foregoing except as required by applicable Legal Requirement.

(j) Assignment of Obligations On Sale or Transfer of Purchaser. If at any time during the Contingent Payment Period, Purchaser, directly or indirectly, sells, transfers or otherwise disposes of all or substantially all of its assets, Purchaser shall make provision for the transferee thereof to assume Purchaser's obligations under this Section 1.4; provided further, however, that any such transfer or disposition (other than to a nationally recognized manufacturer of medical devices of comparable scale to the Purchaser, and with operations in the market for which the Products are intended to be sold) shall not relieve Purchaser of any of its obligations hereunder as provided in Section 1.4, without the written consent of VI.

1.5 Closing and Closing Deliverables

(a) The consummation of the transactions contemplated hereby (the "Closing") shall occur at the offices of Latham & Watkins LLP, 200 Clarendon Street, Boston, MA 02116, at 10:00 A.M. (or may take place electronically as mutually agreed by VI and Purchaser) on the date hereof (the "Closing Date").

(b) At or prior to the Closing:

(i) Purchaser shall pay to VI, in cash by wire transfer of immediately available funds to the account(s) specified by VI prior to the Closing Date, an amount equal to the Closing Date Cash Purchase Price;

(ii) Purchaser shall deposit the Escrow Amount with the Escrow Agent;

(iii) Purchaser and the Sellers shall execute and deliver to one another an assignment and assumption agreement in the form attached hereto as Exhibit C (the "Assumption Agreement") and a bill of sale in the form attached hereto as Exhibit D (the "Bill of Sale");

(iv) Purchaser and VI shall execute and deliver to one another the Escrow Agreement;

(v) the Sellers shall deliver to Purchaser (a) each of the Consents set forth on Schedule 1.5(b)(v)(a), each in a form reasonably acceptable to Purchaser and (b) evidence satisfactory to Purchaser of the release of any and all Encumbrances (including without limitation the Encumbrances set forth on Schedule 1.5(b)(v)(b)) and other security interests with respect to the Purchased Assets;

(vi) each Seller shall deliver to Purchaser at the Closing a certificate of non-foreign status under Treasury Regulations section 1.1445-2(b);

(vii) the Sellers shall deliver to Purchaser a certificate executed on behalf of Seller's secretary or similar authorized officer (the "Secretary's Certificate") certifying on behalf of each Seller: resolutions of the board of managers or directors and equityholders approving this Agreement and the Transactions;

(viii) the Sellers shall deliver a good standing certificate from the Secretary of State of the State of Delaware and the Secretary of Commonwealth of Massachusetts, as applicable;

(ix) the Sellers shall deliver an executed assignment of trademarks in respect of the Trademarks and related applications and rights included in the Seller Transferred Intellectual Property, in the form attached hereto as Exhibit E (the "Trademarks Assignment");

(x) the Sellers shall deliver an executed assignment of patents in respect of the Patents and related applications and rights included in the Seller Transferred Intellectual Property, in the form attached hereto as Exhibit F (the "Patents Assignment");

(xi) the Sellers shall deliver an executed assignment of the Seller Transferred Intellectual Property in the form attached hereto as Exhibit G (the "IP Assignment"); and

(xii) Purchaser and VI shall execute and deliver to one another an assignment, assumption, notice and estoppel agreement in the form attached hereto as Exhibit H (the "Yale Assumption Agreement") with respect to the Exclusive License Agreement dated November 16, 2005, as amended, by and between the VI and Yale University.

1.6 Unobtained Consents To the extent that the assignment by a Seller to Purchaser pursuant to the terms hereof of any Purchased Contract is not permitted without the consent of another Person or Persons which has not been obtained, this Agreement shall not constitute an agreement to assign the same if an attempted assignment would otherwise constitute a breach or other contravention under any Contract or Legal Requirement, and such Purchased Contract a "Contingent Asset") shall only become a Purchased Asset, if and when such consent is obtained. The applicable Seller shall use its commercially reasonable efforts from the Agreement Date through the date that is six (6) months after the Closing Date (the "Transfer Period") to obtain any consents or waivers required to assign to Purchaser any Contingent Asset, without any conditions to such transfer (including the making of any payments) or changes or modifications of terms thereunder. Purchaser agrees that Sellers and their respective Affiliates shall not have any Liability to Purchaser arising out of or relating to the failure to obtain any such consent that may be required in connection with the transactions contemplated by this Agreement or the Transaction Documents or because of any circumstances resulting therefrom. If any such consent is not obtained, the applicable Seller and Purchaser will work together from and after the Closing at mutual expense in a mutually agreeable arrangement under which Purchaser would obtain all of the benefits and assume all of the obligations and Liabilities arising after Closing thereunder to the fullest extent legally possible unless otherwise determined by VI and Purchaser.

1.7 Allocation The Cash Consideration (plus Assumed Liabilities and any other amounts properly taken into account as purchase price under the Code) shall be allocated among the Purchased Assets and the covenants not to compete contained in Section 5.4 of this Agreement in accordance with Section 1060 of the Code and the Treasury regulations promulgated thereunder (and any similar provision of state, local or foreign law, as appropriate) (the "Allocation"). The Allocation shall be delivered by Purchaser to Seller within 90 days of the Closing Date, and shall be subject to the review and comment of VI. Purchaser shall consider in good faith all reasonable comments of VI provided within 30 days of receipt of Purchaser's Allocation, and the parties shall work together in good faith to resolve any differences and agree on a final Allocation; provided that if no such agreement can be reached with respect to the Allocation, such matter shall be submitted to the Independent Accounting Firm (whose fees with respect to such determination will be borne 50% by the Sellers and 50% by Purchaser) to prepare the Allocation, which shall be final and binding on Purchaser and each Seller. Purchaser and the Sellers shall file all Tax Returns (including, but not limited to, Internal Revenue Service Form 8594) consistent with the Allocation (as finally determined in accordance with the provisions of this Section 1.7) except as otherwise required by applicable Legal Requirement. Neither Purchaser nor the Sellers shall take any Tax position inconsistent with such Allocation and neither Purchaser nor the Sellers shall agree to any proposed adjustment to the Allocation by any Taxing authority without first giving the other party prior written notice; provided, however, that nothing contained herein shall prevent Purchaser or the Sellers from settling any proposed deficiency or adjustment by any Tax authority based upon or arising out of the Allocation, and neither Purchaser nor the Sellers shall be required to litigate before any court any proposed deficiency or adjustment by any taxing authority challenging such Allocation.

2. Representations and Warranties of the Sellers. Sellers represent and warrant, jointly and severally, as of the Closing Date, to Purchaser as follows, except as set forth in the Disclosure Schedule, which shall be arranged in numbered Sections corresponding to the subsections in this Section 2 (and qualify such corresponding subsections in this Section 2 regardless of whether such Disclosure Schedule is referenced in such corresponding subsection in this Section 2 where the applicability is reasonably discernable from the disclosure), that the statements contained in this

Section 2 are true and correct (as qualified therein):

2.1 Due Organization; Subsidiaries; Etc. Each Seller is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization. Each Seller is duly qualified, authorized, registered or licensed to do business, in good standing, in any jurisdiction in which the business of such Seller requires it to be so qualified, authorized, registered or licensed to do business, except where the failure to be so qualified would not have a Business Material Adverse Effect. Management is a wholly owned Subsidiary of VI. Management does not have any Subsidiaries or own equity interests in any other Person. Aside from Management, VI does not have any Subsidiaries or own equity interests in any other Person.

2.2 Authority; Binding Nature Of Agreements; Non-Contravention

(a) Each Seller has the full power and authority to enter into and to perform its obligations under each of the Transaction Documents to which it is a party; and the execution, delivery and performance by such Seller of the Transaction Documents to which it is a party have been duly authorized by all necessary corporation or company, as applicable, action on the part of Sellers. This Agreement and each of the other Transaction Documents to which such Seller is a party constitute legal, valid and binding obligations of such Seller, enforceable against such Seller in accordance with their respective terms.

(b) Neither the execution and delivery of any of the Transaction Documents, nor the consummation or performance of any of the Transactions, will directly or indirectly (with or without notice or lapse of time): (i) contravene, conflict with or result in a violation of, or give any Governmental Body or other Person the right to challenge any of the Transactions or to exercise any remedy or obtain any relief under, any Legal Requirement or any Order to which the Sellers, the Business, or any of the assets of the Sellers, are subject; (ii) contravene, conflict with or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by the Sellers or any employee of the Sellers; (iii) contravene, conflict with or result in a violation or breach of, or result in a default under, any provision of any Contract that would be a Purchased Contract but for the terms of Section 1.6; (iv) result in the imposition or creation of any Encumbrance upon or with respect to any of the Purchased Assets (other than Permitted Encumbrances); or (v) contravene, conflict with or result in a violation of any provision of the Sellers' Organizational Documents. None of the Sellers nor the Business were, are and will be required to make any filing with or give any notice to, or to obtain any Consent from, any Governmental Body or any Third Party in connection with the execution and delivery of any of the Transaction Documents or the consummation or performance of any of the Transactions. The approval by the (x) board of directors (or similar governing body) of each of the Sellers and (y) the equity holders of Seller of this Agreement and the Transactions, each of which has been obtained by the Sellers, are the only approvals of any Person that are necessary to approve this Agreement and the Transactions under the laws of the State of Delaware and the Organizational Documents of each such Seller.

2.3 Financial Statements Complete copies of the audited financial statements consisting of the balance sheets of the Business as at December 31, 2017 and December 31, 2016 and the related statements of income and retained earnings, stockholders' equity and cash flow for the years then ended (the "Audited Financial Statements"), and unaudited financial statements consisting of the balance sheet of the Business as at October 31, 2018 and the related statements of income and retained earnings, stockholders' equity and cash flow for the ten-month period then ended (the "Interim Financial Statements" and together with the Audited Financial Statements, the "Financial Statements") have been delivered to Purchaser. The Financial Statements have been prepared in accordance with GAAP applied on a consistent basis throughout the periods involved, subject, in the case of the Interim Financial Statements, to normal and recurring year-end adjustments (the effect of which will not be materially adverse) and the absence of notes (that, if presented, would not differ materially from those presented in the Audited Financial Statements). The Financial Statements are based on the books and records of the Business, and fairly present in all material respects the financial condition of the Business as of the respective dates they were prepared and the results of the operations of the Business for the periods indicated. The balance sheet of the Business as of October 31, 2018 is referred to herein as the "Balance Sheet" and the date thereof as the "Balance Sheet Date."

2.4 Undisclosed Liabilities Sellers have no material Liabilities with respect to the Business that would be required to be reflected or reserved against on a consolidated balance sheet of the Sellers prepared in accordance with GAAP, except (a) those which are adequately reflected or reserved against in the Balance Sheet as of the Balance Sheet Date, (b) expenses incurred in connection with the Transactions, (c) Excluded Liabilities, and (d) those which have been incurred in the Ordinary Course of Business since the Balance Sheet Date and which are not, individually or in the aggregate, material in amount.

2.5 Absence Of Changes

Since October 31, 2018, there has not been any:

(a) event, occurrence or development that has had, or could reasonably be expected to have, individually or in the aggregate, a Business Material Adverse Effect;

(b) material change in any method of accounting or accounting practice for the Business, except as required by GAAP or as disclosed in the notes to the Financial Statements;

(c) making of any loan or advance to any other Person, other than travel advances and other advances to employees for customary business purposes;

(d) entry into any Contract that would constitute a Material Contract;

(e) sale or transfer, or lease or license, pledge or encumber any asset (including any Intellectual Property or Technology) to any other Person, except for leases or licenses of assets by the Business in the Ordinary Course of Business;

(f) transfer, assignment, sale or other disposition of any of the material assets shown or reflected in the Balance Sheet, except for the sale of Inventory in the Ordinary Course of Business;

(g) cancellation of any debts or claims or amendment, termination or waiver of any material rights constituting, or that would have constituted, Purchased Assets;

(h) transfer or assignment of or grant of any license or sublicense under or with respect to any Intellectual Property or Intellectual Property License (except non-exclusive licenses or sublicenses granted in the Ordinary Course of Business consistent with past practice);

(i) abandonment or lapse of or failure to maintain in full force and effect any Registered Intellectual Property except as disclosed on Section 2.5(i) of the Disclosure Schedule, or failure to take or maintain reasonable measures to protect the confidentiality or value of any Trade Secrets except where an act of misappropriation has occurred despite the Sellers reasonable efforts to protect of the confidentiality or value of any Trade Secrets, and to the Knowledge of Sellers, no such act of misappropriation has occurred;

(j) material damage, destruction or loss, or any material interruption in use, of any Purchased Assets, whether or not covered by insurance;

(k) acceleration, termination, material modification to or cancellation of any Purchased Contract or Permit;

(l) material capital expenditures which would constitute an Assumed Liability;

(m) imposition of any Encumbrance upon any of the Purchased Assets;

(n) (i) grant of any bonuses, whether monetary or otherwise, or increase in any wages, salary, severance, pension or other compensation or benefits in respect of any current Business Employee or independent contractors or consultants of the Business, other than as provided for in any written agreements, as required by applicable Law or in the ordinary course of business consistent with past practices, (ii) change in the terms of employment for any Business Employee, or (iii) action to accelerate the vesting or payment of any compensation or benefit for any Business Employee or independent contractor of the Business;

(o) adoption, modification or termination of any: (i) employment, severance, retention or other agreement with any current or former employee, officer, director, independent contractor or consultant of the Business, (ii) Plan, or (iii) collective bargaining or other agreement with a union, in each case whether written or oral;

(p) any loan to (or forgiveness of any loan to), or entry into any other transaction with, any current or former directors, officers or employees of the Business;

(q) adoption of any plan of merger, consolidation, reorganization, liquidation or dissolution or filing of a petition in bankruptcy under any provisions of federal or state bankruptcy Law or consent to the filing of any bankruptcy petition against it under any similar Law;

(r) purchase, lease or other acquisition of the right to own, use or lease any property or assets in connection with the Business for an amount in excess of $30,000, individually (in the case of a lease, per annum) or $100,000 in the aggregate (in the case of a lease, for the entire term of the lease, not including any option term), except for purchases of Inventory or supplies in the Ordinary Course of Business consistent with past practice;

(s) with respect to any material Contract by which the Business or any of the assets owned or used by the Business is or was bound, or under which the Business has or had any rights or interest, amendment or modification in a manner that has increased the obligations of the Sellers thereunder or terminate such Contract (other than terminations of Contracts due to the expiration of the stated term thereof); or

(t) entrance into any Contract to do any of the foregoing.

2.6 Title To Purchased Assets . Each Seller has, and will convey to Purchaser, good and valid title to, or in the case of leased or licensed properties and assets, valid leasehold interests or valid licenses in, all of the properties and assets (whether in tangible or intangible form), real, personal and mixed, used or held for use in the Business by such Seller and constituting a Purchased Asset, free and clear of any and all Encumbrances, except Permitted Encumbrances.

2.7 Condition and Sufficiency of Assets . Except as set forth in Section 2.7 of the Disclosure Schedule, the Purchased Assets are in good working order. The Purchased Assets are sufficient for the continued manufacturing, marketing and selling of the Medical Devices after the Closing in substantially the same manner as conducted prior to the Closing.

2.8 Inventories . All Inventory of Sellers is of a quality and quantity usable and, with respect to finished goods, resalable in the Ordinary Course of Business. None of such Inventory is slow-moving, obsolete, damaged, defective or of below-standard quality, other than that which has been written off or written down to net realizable value on the Balance Sheet or the accounting records of Sellers as of the Closing Date in accordance with GAAP. All Inventory of Sellers is held free and clear of all Encumbrances and no Inventory is held on a consignment basis. All Inventory of Sellers is maintained at the facilities of Sellers' contract manufacturers and the quantities of each item of inventory (whether raw material, work-in-process or finished goods) are not excessive, but are reasonably in the present circumstances of Sellers.

2.9 Suppliers ; Customers.

(a) Section 2.9(a) of the Disclosure Schedule sets forth with respect to the Business (i) the 15 customers who paid the most aggregate consideration to Sellers during the fiscal year ended December 31, 2017 and the first ten months of 2018 (collectively, the "Material Customers"); and (ii) the amount of consideration paid by each Material Customer during such periods. Neither Seller has received any notice, and neither Seller has any reason to believe, that any of the Material Customers has ceased, or intends to cease after the Closing, to use the goods or services of the Business or to otherwise terminate or materially reduce its relationship with the Business.

(b) Section 2.9(b) of the Disclosure Schedule sets forth with respect to the Business (i) the 15 suppliers to whom Seller has paid the most aggregate consideration during the fiscal year ended December 31, 2017 and the first ten months of 2018 (collectively, the "Material Suppliers"); and (ii) the amount of purchases from or payment to each Material Supplier during such periods. Neither Seller has received any notice, and neither Seller has any reason to believe, that any of the Material Suppliers has ceased, or intends to cease, to supply goods or services to the Business or to otherwise terminate or materially reduce its relationship with the Business.

2.10 Intellectual Property

(a) Section 2.10(a) of the Disclosure Schedule sets forth a true and correct list of all Registered Intellectual Property, including: (i) the record owner of such item, and, if different, the legal owner and beneficial owner of such item, (ii) the jurisdiction in which such item is issued, registered or pending, and (iii) the issuance, registration or application date and number of such item. All necessary fees and filings with respect to any Registered Intellectual Property have been timely paid or submitted to the relevant Governmental Bodies and Domain Name registrars to maintain such Registered Intellectual Property in full force and effect. No issuance or registration obtained and no application filed by the Sellers for any Registered Intellectual Property has been cancelled, abandoned, allowed

to lapse or not renewed, except where the Sellers have, in their reasonable business judgment, decided to cancel, abandon, allow to lapse or not renew such issuance, registration or application. Sellers have provided Purchaser with true and complete copies of file histories, documents, certificates, office actions, correspondence and other materials related to all Registered Intellectual Property.

(b) The Sellers are the sole and exclusive owner of all right, title and interest in and to all Seller Transferred Intellectual Property owned or purported to be owned by the Sellers, free and clear of all Encumbrances (other than Permitted Encumbrances). To the Knowledge of the Sellers, the Sellers have valid and continuing rights (pursuant to Intellectual Property Licenses in Contracts) to use, sell, license and otherwise exploit, as the case may be, all other Seller Transferred Intellectual Property as the same is used, sold, licensed and otherwise exploited by the Sellers in the Business as currently conducted by the Sellers, free and clear of all Encumbrances (other than Permitted Encumbrances). The Seller Transferred Intellectual Property constitutes all of the Intellectual Property and Technology necessary and sufficient for the continued conduct of the Business immediately following the Closing in substantially the same manner as conducted prior to the Closing. The foregoing shall not be deemed a representation or warranty of non-infringement of third party Intellectual Property.

(c) The Seller Transferred Intellectual Property owned by the Sellers (including the Registered Intellectual Property) is subsisting, and, to the Knowledge of the Sellers, valid and enforceable. The Seller Transferred Intellectual Property exclusively licensed to the Sellers is , to the Knowledge of Sellers, subsisting, enforceable and valid. The Sellers have obtained from all current and former employees, consultants and contractors who have created any portion of, or otherwise who would have any rights in or to, the Seller Transferred Intellectual Property owned or purported to be owned by the Sellers valid and enforceable written assignments, pursuant to which such employee, consultant or contractor makes a present assignment of any such Seller Transferred Intellectual Property and all rights therein to the Sellers and irrevocably waives all of such person's moral rights therein. The consummation of the transactions contemplated hereby will not result in the loss or impairment of any right to own, use, practice or otherwise exploit any Seller Transferred Intellectual Property. Neither this Agreement nor any transaction contemplated by this Agreement will result in the grant by the Sellers to any Person of any ownership interest or other right with respect to any Seller Transferred Intellectual Property or any Intellectual Property or Technology owned by Purchaser or any of its Affiliates pursuant to any Contract to which the Sellers are a party or by which any assets or properties of the Sellers are bound.

(d) None of the following infringes, misappropriates, or violates or has infringed, misappropriated or violated, any Intellectual Property or Technology of any Person: (i) any Seller Transferred Intellectual Property owned by or exclusively licensed to the Sellers; (ii) any use, practice or other exploitation of any Seller Transferred Intellectual Property in the Business; (iii) any Business Products and Services (or the making, having made, use, offer for sale, sale, import, export, lease, license, distribution, provision, rendering, reproduction, performance, display, transmission, modification, creation of derivative works of or other disposal or exploitation of any Business Products and Services); or (iv) any current conduct, operations or practices of the Business. None of the Sellers have received any written or, to the Knowledge of the Sellers, unwritten claim from any Person, and there is no pending or threatened Proceeding: (A) alleging any infringement, misappropriation, misuse or violation of any Intellectual Property or Technology or unfair competition, (B) inviting any Seller to take a license under any Intellectual Property or consider the applicability of any Intellectual Property to any Business Products and Services or the conduct of the Seller Business or (C) challenging the ownership, use, validity or enforceability of any Seller Transferred Intellectual Property.

(e) To the Knowledge of the Sellers, no Person is infringing, misappropriating, misusing, diluting or violating any Seller Transferred Intellectual Property. None of the Sellers have made any written or, to the Knowledge of the Sellers, unwritten claim against any Person alleging any infringement, misappropriation, misuse, dilution or violation of any Seller Transferred Intellectual Property. The Sellers have the right to bring actions for the infringement or other violation of all of the Seller Transferred Intellectual Property owned by or licensed to the Sellers. None of the Seller Transferred Intellectual Property is subject to any outstanding Order. Neither Seller is a party, nor is the Seller Transferred Intellectual Property or any property licensed under any Intellectual Property License involved in, any opposition, interference, post-grant review, inter-partes review, or the like.

(f) Section 2.10(f) of the Disclosure Schedule contains a correct, current and complete list of all Intellectual Property Licenses, specifying for each the date, title and parties thereto. Seller has provided Purchaser with true and complete copies (or in the case of any oral agreements, a complete and correct written description) of all such Intellectual Property Licenses, including all modifications, amendments and supplements thereto and waivers thereunder. Each Intellectual Property License is valid and binding on Seller in accordance with its terms and is in full

force and effect. Neither Seller nor any other party thereto is, or is alleged to be, in breach of or default under, or has provided or received any notice of breach of, default under, or intention to terminate (including by non-renewal), any Intellectual Property License.

(g) No Trade Secret included in the Seller Transferred Intellectual Property has been authorized to be disclosed or has been disclosed by the Sellers to any Person other than pursuant to a written confidentiality Contract restricting the disclosure and use thereof. The Sellers have taken commercially reasonable measures to protect the confidentiality of all Trade Secrets included in the Seller Transferred Intellectual Property. Each employee, consultant and contractor of the Sellers has entered into a written non-disclosure Contract with the Sellers.

(h) The IT Assets operate in all material respects in accordance with their documentation and functional specifications and otherwise as required by the Sellers and the operations of Business. Each Seller (i) has taken commercially reasonable measures to preserve and maintain the performance, security and integrity of the IT Systems (and all Software, information or data stored thereon) including against any unauthorized use, access, interruption, modification or corruption, and (ii) maintains reasonable documentation regarding all IT Systems, their methods of operation and their support and maintenance. Sellers has implemented and maintains commercially reasonable data backup, data storage, system redundancy, business continuity, and disaster avoidance and recovery procedures with respect to the IT Assets. There has been no failure with respect to any IT Assets that has had a material effect on the operations of the Business and to the Knowledge of the Sellers, there has been no unauthorized access to or use of any IT Systems.

(i) No government funding and no facilities of any university, college, other educational institution or research center were used in the development of any Seller Transferred Intellectual Property owned by the Sellers. To the Knowledge of the Sellers, no current or former employee, consultant or contractor of the Seller that contributed to the creation or development of any Seller Transferred Intellectual Property has performed any services for any government or any university, college, other educational institution or research center during a period of time during which such employee, consultant or contractor was also performing services for the Sellers.

2.11 Contracts

(a) Section 2.11(a) of the Disclosure Schedule identifies each Contract to which any Seller is a party or by which any Seller is bound (each, a "Material Contract"):

(i) that is a collective bargaining or similar agreement with any labor union or other employee association or organization;

(ii) relating to the acquisition, transfer, use, development, restriction, sharing, license, sublicense or grant of any other right of any Technology or any Intellectual Property, including any Intellectual Property License, to or from Sellers (other than: (i) Off The Shelf Software; (ii) non-disclosure agreements; (iii) open source licenses; and (iv) agreements with employees);

(iii) imposing any restriction on the Sellers' right or ability (A) to compete with any other Person, (B) to acquire any product or other asset or any services from any other Person, to sell any product or other asset to or perform any services for any other Person or to transact business or deal in any other manner with any other Person, or (C) to develop or distribute any Technology;

(iv) creating or involving any agency relationship, distribution arrangement or franchise relationship (other than employment or consulting relationships);

(v) relating to the creation of any Encumbrance (other than Permitted Encumbrances) with respect to any asset of the Sellers;

(vi) involving or incorporating any guaranty, any pledge, any performance or completion bond, any indemnity or any surety arrangement;

(vii) creating or relating to any partnership or joint venture or any sharing of revenues, profits, losses, costs or liabilities;

(viii) with any Related Party;

(ix) that contemplates or might reasonably be expected to involve (A) the payment or delivery of cash or other consideration in an amount or having a value in excess of $100,000 in the aggregate, or (B) the performance of services having a value in excess of $100,000 in the aggregate;

(x) that require Seller to purchase or sell a stated portion of the requirements or outputs

of the Business or that contain “take or pay” provisions;

(xi) that provide for the indemnification of any Person or the assumption of any Tax, environmental or other Liability of any Person;

(xii) that relate to the acquisition or disposition of any business, a material amount of stock or assets of any other Person or any real property (whether by merger, sale of stock, sale of assets or otherwise);

(xiii) that are broker, distributor, dealer, manufacturer's representative, franchise, agency, sales promotion, market research, marketing consulting and advertising Contracts;

(xiv) that are employment agreements and Contracts with independent contractors or individual consultants (or similar arrangements) and which involve annual base compensation of $100,000 or more and are not cancellable without penalty, severance or other payment obligation (other than accrued earnings with respect to the pre-termination period);

(xv) with any Governmental Authority;

(xvi) that relate to a joint venture, partnership or similar cooperative endeavor with a third party;

(xvii) that are for the sale of any of the Purchased Assets or for the grant to any Person of any option, right of first refusal or preferential or similar right to purchase any of the Purchased Assets; and

(xviii) that was entered into in connection with any historic acquisition consummated by the Sellers.

(b) Each Material Contract is in full force and effect and is a legal, valid and binding contract or agreement of the applicable Seller(s) and, to the Knowledge of the Sellers, each other party thereto, and is enforceable against such Seller(s) and, to the Knowledge of the Sellers, each other party thereto, in accordance with its terms, subject only to general enforceability exceptions. (i) The Sellers have not, and, to the Knowledge of the Sellers, no other Person has, materially violated or breached, or declared or committed any material default under, any Material Contract; (ii) no event has occurred, and no circumstance or condition exists (including the execution of this Agreement and the consummation of the transactions contemplated hereby), that might (with or without notice or lapse of time) (A) result in a material violation or breach of any of the provisions of any Material Contract, (B) give any Person the right to declare a default or exercise any remedy under any Material Contract, (C) give any Person the right to accelerate the maturity or performance of any Material Contract, or (D) give any Person the right to cancel, terminate or modify any Material Contract; (iii) the Sellers have not received any written notice or other communication regarding any material violation or breach of, or default under, any Material Contract; and (iv) the Sellers have not waived any material right under any Seller Contract. Purchaser has been provided with a true, correct and complete copy of all Material Contracts, together with all supplements, amendments, waivers or other changes thereto.

2.12 Compliance with Legal Requirements

(a) General. The Sellers are in material compliance with each Legal Requirement that is applicable to Sellers or the conduct of the Business or the ownership or use of the Purchased Assets, and have at all times since January 1, 2013 been, in material compliance with each Legal Requirement that is or was applicable to Sellers, the conduct of the Business or the ownership or use of the Purchased Assets. No event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) constitute or result directly or indirectly in material violation by the Sellers of, or a material failure on the part of the Sellers to comply with, any Legal Requirement that is applicable to the conduct of the Business or the ownership or use of the Purchased Assets.

(b) Anti-Corruption Compliance. Sellers have not violated any applicable Anti-Corruption Law. No director, officer or employee of any Seller, nor to the Knowledge of Sellers, any agent, representative, consultant or other Person acting for or on behalf of any Seller has, in connection with the conduct or operation of the Business, violated any applicable Anti-Corruption Law. No Seller (including any of its officers or directors) has received any material written notice of material violation with respect to any applicable Anti-Corruption Law, or any rules or regulations thereunder.

(c) Export Controls and Economic Sanctions Compliance.

(i) Each Seller is and has been in compliance in all material respects with all applicable Legal Requirements relating to imports, exports and economic sanctions, including all laws administered and enforced by the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") or the U.S. State Department ("Trade Laws").

(ii) No Seller has been a party to any agreement or engaged in any transaction or other business, directly or indirectly, (i) in material violation of Trade Laws or (ii) with any Governmental Entity or other Person that appears on any list of OFAC-sanctioned parties (including any Person that appears on OFAC's Specially Designated Nationals and Blocked Persons List), is owned or controlled by such a Person, or is located or organized in any country or territory that is subject to comprehensive OFAC sanctions.

2.13 Governmental Authorizations Sellers have all material Governmental Authorizations required for Sellers to conduct the Business as currently conducted and for the ownership and use of the Purchased Assets, and all such Governmental Authorizations are in full force and effect. Section 2.13 of the Disclosure Schedule identifies: each Governmental Authorization that is held, or required to be held, by the Sellers and that is required in order to conduct the Business as presently conducted or hold or use the Purchased Assets (each a "Business Government Authorization"). Each Business Governmental Authorization identified or required to be identified in Section 2.13 of the Disclosure Schedule is valid and in full force and effect. The Sellers are in material compliance with all of the terms and requirements of each Business Governmental Authorization identified or required to be identified in Section 2.13 of the Disclosure Schedule. To the Knowledge of Sellers, no event has occurred, and no condition or circumstance exists, that would reasonably be expected to (with or without notice or lapse of time) (a) constitute or result directly or indirectly in a violation of or a failure to comply with any term or requirement of any Business Governmental Authorization identified or required to be identified in Section 2.13 of the Disclosure Schedule, or (b) result directly or indirectly in the revocation, withdrawal, suspension, cancellation, termination or material modification of any Business Governmental Authorization identified or required to be identified in Section 2.13 of the Disclosure Schedule. The Sellers have not received any written notice from any Governmental Body or any other Person regarding (i) any actual, alleged, possible or potential violation of or failure to comply with any material term or requirement of any Business Governmental Authorization, or (ii) any actual, proposed, possible or potential revocation, withdrawal, suspension, cancellation, termination or modification of any Business Governmental Authorization.

2.14 Regulatory Matters

(a) Each existing Medical Device has been and is being developed, manufactured, tested, distributed and/or marketed in material compliance with all applicable requirements under the FDCA, applicable foreign equivalents and other Health Care Laws, including those relating to investigational use, premarket clearance or marketing approval to market a Medical Device, quality system regulation, current good manufacturing practices, packaging, labeling, advertising, promotion, record keeping, adverse event reporting, filing of other reports and security. No Seller has received any written notice from the FDA or any other Governmental Body (i) contesting the premarket clearance or approval of, the uses of or the labeling and promotion of any products of the Business, or (ii) otherwise alleging any violation applicable to any Medical Device of any Legal Requirement.

(b) Sellers have not made an untrue statement of a material fact or fraudulent statement to the FDA or any other Governmental Body, failed to disclose a material fact required to be disclosed to the FDA or any other Governmental Body, or committed an act, made a statement, or failed to make a statement that, at the time such disclosure was made, could reasonably be expected to provide a basis for the FDA or any other Governmental Body to invoke its policy respecting "Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities", set forth in 56 Fed. Reg. 46191 (September 10, 1991).

(c) Neither Sellers, nor any officer, employee or, to the Knowledge of Sellers, agent of Sellers, has been convicted of any crime or engaged in any conduct for which debarment is mandated by 21 U.S.C. § 335a(a) or any similar Legal Requirement or authorized by 21 U.S.C. § 335a(b) or any similar Legal Requirement. None of the Sellers, nor, to the Knowledge of the Sellers, any officer, employee or agent of Sellers has been convicted of any crime or engaged in any conduct for which such Person or entity could be excluded from participating in the federal health care programs under Section 1128 of the Social Security Act of 1935, as amended (the "Social Security Act") or any similar Legal Requirement.

(d) No Seller has received any written notice that the FDA or any other Governmental Body has (i) commenced, or threatened to the Sellers to initiate, any action to withdraw its approval or request the recall of any Medical Device, (ii) commenced or threatened to initiate, any action to enjoin production of any Medical Device, or (iii) commenced or threatened to initiate, any action to enjoin the production of any medical device produced at any facility where any Medical Device is manufactured, tested or packaged. Since January 1, 2013, no Medical Device has been recalled, been subject to a product advisory notice, withdrawn, suspended, seized or discontinued (other than for commercial or other business reasons) by, Sellers in the United States or outside the United States (whether voluntarily or otherwise).

(e) To the Knowledge of Sellers, there are no facts, circumstances or conditions that would reasonably be expected to form the basis for any material investigation, suit, claim, action or proceeding against Sellers with respect to the Business relating to or arising under (i) the FDCA; (ii) the Medicare program (Title XVIII of the Social Security Act), the Medicaid program (Title XIX of the Social Security Act) and the TRICARE program (10 U.S.C. §§ 1071, et seq.); (iii) the Physician Payments Sunshine Act; (iv) the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7(b)) and the False Claims Act (42 U.S.C. § 1320a-7b(a)); (v) the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. § 1320d et. seq.), as amended by the Health Information Technology for Economic and Clinical Health Act; (vi) Section 501(k) of the Federal Trade Commission Act, as amended; (vii) any comparable foreign Legal Requirements with respect to matters relating to the provision, administration, promotion and/or payment of healthcare products or services that are applicable to Sellers; and (viii) the regulations promulgated pursuant to all such applicable Legal Requirements, each as amended from time to time (collectively, "Healthcare Laws").

(f) Sellers hold, and since January 1, 2013 have held, all material Governmental Authorizations under Healthcare Laws that are necessary for the lawful operation of the business of Sellers, including (i) all authorizations under the FDCA (including Section 510(k) and Section 515 thereof), and (ii) authorizations of any applicable Governmental Authority that are concerned with the quality, identity, safety, efficacy, development, testing, manufacturing, labeling, marketing, distribution, sale, pricing, import or export of Business Products and Services (including without limitation Medical Devices) necessary for the lawful operation of the businesses of Sellers in each jurisdiction in which Sellers operate or are required to hold such Governmental Regulation (the "Seller Regulatory Permits").

(g) Except as would not reasonably be expected to be, individually or in the aggregate, material to Sellers, taken as a whole, the businesses of each of the Sellers are being, and since January 1, 2013 have been, conducted in compliance with all Healthcare Laws. There is no Proceeding pending or, to the Knowledge of Sellers, threatened, against either Seller for failure to comply with any Healthcare Law.

(h) Neither of the Sellers is a party to any corporate integrity agreements, monitoring agreements, deferred prosecution agreements, consent decrees, settlement orders, or similar material agreements with or imposed by any Governmental Authority and no such action is currently pending. Except as has not had, and would not reasonably be expected to be, individually or in the aggregate, material to Sellers, taken as a whole Sellers have not received since January 1, 2013, and is not subject to any outstanding obligations arising under, any criminal, civil or regulatory action, inspection, Form 483, warning letter, notice of violation or "untitled" letter, or similar Proceeding, demand, investigation, or notice by the FDA or any similar Government Authority.

(i) Except as would not reasonably be expected to be, individually or in the aggregate, material to Sellers, taken as a whole, since January 1, 2013, all reports, documents, claims, permits, adverse event reports, complaints, notices, registrations and applications required to be filed, maintained or furnished to the FDA or any other Healthcare Regulatory Authority by Sellers have been so filed, maintained or furnished. All such reports, documents, claims, permits, adverse event reports, complaints, notices, registrations and applications were complete and accurate in all material respects on the date filed (or were corrected in or supplemented by a subsequent filing).

(j) Except as available in the public databases of any Healthcare Regulatory Authority, since January 1, 2013, neither of the Sellers has voluntarily or involuntarily initiated, conducted or issued, caused to be initiated, conducted or issued, or received written notice of any material recall, field corrective action, market withdrawal or replacement, safety alert, warning, "dear doctor" letter, investigator notice, or other notice or action to wholesalers, distributors, retailers, healthcare professionals or patients relating to an alleged lack of safety, efficacy or regulatory compliance of any Business Products and Services or is currently considering initiating, conducting or issuing any material recall of any Business Products and Services.

2.15 Taxes

(a) The Sellers have timely filed (taking into account any extensions of time for such filings that have been properly and timely requested by the Sellers) all income Tax Returns and other material Tax Returns that were required to be filed by them. All such Tax Returns are complete and accurate in all material respects. All Taxes owed by the Sellers (whether or not shown on any Tax Return) have been paid or accrued. There are no Encumbrances on any of the Purchased Assets for Taxes (other than Permitted Encumbrances).

(b) Each Seller has withheld and paid all Taxes required to have been withheld and paid in connection with amounts paid or owing to any employee, independent contractor, creditor, owner, or other third party, and all Internal Revenue Service Forms W-2 and 1099 required with respect thereto have been properly completed and timely filed.

(c) There are no pending or, to the Knowledge of the Sellers, threatened audits, investigations, disputes, notices of deficiency, claims or other Proceedings that could result in an Encumbrance on the Purchased Assets or that otherwise relate to any Tax Liability of either Seller.

(d) Since the date of the Interim Balance Sheet, the Sellers have not incurred any material Liability for Taxes outside the Ordinary Course of Business consistent with past practice that could reasonably be expected to result in the creation of an Encumbrance on the Purchased Assets.

(e) None of the Purchased Assets (i) constitutes “tax-exempt use property” within the meaning of Section 168(h) of the Code, (ii) is “tax-exempt bond financed property” within the meaning of Section 168(g) of the Code, (iii) secures any debt the interest of which is tax-exempt under Section 103(a) of the Code or (iv) is subject to a 467 rental agreement as defined in Section 467 of the Code.

(f) VI has never been classified as a C corporation for United States federal income tax purposes and the Sellers are not “applicable large employers” within the meaning of Code Section 4980H.

(g) Neither Seller is or has been a party to any ‘‘listed transaction,’’ as defined in Code Section 6707A(c)(2) and Treasury Regulation Section 1.6011-4(b)(2).

2.16 Employment and Employee Benefit Matters

(a) Sellers have provided Purchaser with a list of all Business Employees and independent contractors or consultants of the Business as of the date hereof, including any Business Employee who is on a leave of absence of any nature, paid or unpaid, and sets forth for each such individual the following: (i) name; (ii) title or position (including whether full-time or part-time); (iii) hire or retention date; (iv) current annual base compensation rate or contract fee; and (v) commission, bonus or other incentive-based compensation. Sellers have paid all compensation, including wages, commissions, bonuses, fees and other compensation, payable to all Business Employees, independent contractors or consultants of the Business that is otherwise due and payable for services performed on or prior to the date hereof.

(b) The terms and conditions of employment of any Business Employee are not, governed by any collective bargaining or similar agreement. There is no labor strike, work stoppage, picketing, lockout, walkout or other organized work interruption pending or, to the Knowledge of the Sellers, threatened against the Sellers relating to any Business Employee, and the Sellers have not experienced any such labor strike, work stoppage, picketing, lockout, walkout or other organized work interruption during the past three years. There are no labor unions or other organizations representing, purporting to represent and, to the Knowledge of the Sellers, no union organization campaign is in progress with respect to, any Business Employee.

(c) Sellers are and have been for the prior three years in material compliance with all applicable Legal Requirements pertaining to employment and employment practices to the extent they relate to Business Employees, volunteers, interns, consultants and independent contractors of the Business, including all Legal Requirements relating to labor relations, equal employment opportunities, fair employment practices, employment discrimination, harassment, retaliation, reasonable accommodation, disability rights or benefits, immigration, wages, hours, overtime compensation, child labor, hiring, promotion and termination of employees, working conditions, meal and break periods, privacy, health and safety, workers' compensation, leaves of absence, paid sick leave and unemployment insurance.

(d) Except as could not result in any material liability (i) all individuals characterized and treated by Seller as consultants or independent contractors of the Business are properly treated as independent contractors under all applicable Legal Requirements and (ii) all Business Employees classified as exempt under the Fair Labor Standards Act and state and local wage and hour laws are properly classified. There are no Actions against Seller pending, or to the Knowledge of Sellers, threatened to be brought or filed, by or with any Governmental Body or arbitrator in connection with the employment of any current or former Business Employee.

(e) Schedule 2.16(e) lists each Plan in which Business Employees participate (not including standard offer letters which do not provide for any payment of severance not otherwise required by Legal Requirements). Each such Plan (and each related trust, insurance contract, or fund) has been maintained, funded and administered in material compliance with the terms of such Plan and applicable Legal Requirements, including but not limited to ERISA and the Code .

(f) Each Plan that is intended to meet the requirements of a ‘‘qualified plan’’ under Code Section 401(a) has received or may rely upon a determination, opinion of advisory letter from the Internal Revenue Service that such Plan is so qualified; and, to the Knowledge of the Sellers, there no facts or circumstances that would reasonably be expected to adversely affect the tax-qualified status of any such Plan.

(g) No action, suit, proceeding, hearing, or investigation with respect to the administration or the investment of the assets of any such Plan (other than routine claims for benefits) is pending or, to the Knowledge of the Sellers, threatened.

(h) At no time during the past six years has either of the Sellers or any of its ERISA Affiliates contributed to or incurred any obligation to contribute to, sponsored or incurred any Liability under or with respect to any defined benefit pension plan or other plan that is or was subject to Title IV of ERISA or Code Section 412.

(i) Neither Seller maintains, contributes to or has an obligation to contribute to, or has any material Liability or potential Liability with respect to, any group Plan that provides health or life insurance on a group basis for currently or future retired or terminated Business Employees (or any spouse or other dependent thereof) other than in accordance with COBRA. Neither Seller has any Liability or potential Liability under any Contract that requires Sellers or any successor to provide health or life insurance for retired or terminated Business Employees (or any spouse or other dependent thereof).

2.17 Environmental Matters . (a) Sellers have been in compliance in all material respects with all applicable Environmental Laws, which compliance has included obtaining and maintaining all applicable permits pertaining to Environmental Laws required for the occupation of the real property currently leased or subleased by the Sellers (the “Leased Real Property”); (b) neither Seller has received any written notice alleging any past or present material noncompliance with, or material Liability under, any Environmental Laws with respect to the Purchased Assets or the Business; and (c) to the Knowledge of the Sellers, there has not been any Hazardous Materials, treated, stored, transported, disposed of or arranged to be disposed of, manufactured, distributed, released, or otherwise existing on, under, about, or emanating from or to the Leased Real Property, and no Person has been exposed to any such Hazardous Materials on the Leased Real Property, except in compliance with all applicable Environmental Laws.

2.18 Insurance . The Sellers have delivered to Purchaser a copy of all material insurance policies and all material self-insurance programs and arrangements relating to the operation of the Business and the Purchased Assets. Each of such insurance policies is in full force and effect. Since January 1, 2013, the Sellers have not received any notice or other communication regarding any actual or specifically proposed (a) cancellation or invalidation of any insurance policy, (b) refusal of any coverage or rejection of any material claim under any insurance policy, or (c) material adjustment in the amount of the premiums payable with respect to any insurance policy.

2.19 Proceedings; Orders; Complaints . There is no pending Proceeding, and, to the Knowledge of the Sellers, no Person has threatened to commence any Proceeding: (a) against the Sellers pertaining to the Purchased Assets, the Business or the Assumed Liabilities or (b) that challenges, or that may have the effect of preventing, delaying, making illegal or otherwise materially interfering with, the consummation of the Transactions. No event has occurred, and no claim, dispute or other condition or circumstance exists, that would reasonably be expected to directly or indirectly give rise to or serve as a basis for the commencement of any such Proceeding. No Proceeding has ever been commenced by or against the Sellers pertaining to the Purchased Assets or the Business that remains pending. There is no Order to which the Sellers, or any of the assets owned or used by the Sellers, is subject pertaining to the Purchased Assets or the Business. To the Knowledge of the Sellers, no Business Employee is subject to any Order that may prohibit

such Business Employee from engaging in or continuing any conduct, activity or practice relating to the Business. The Sellers have not received any written complaint, claim, demand letter or similar communication from any Person with respect to the Purchased Assets or the Business.

2.20 Product Liability . (a) To the Knowledge of Sellers, there are no defects in design, construction or manufacture of any Medical Devices or other products currently being marketed by the Sellers which would adversely affect performance or create an unusual risk of injury to persons or property; and (b) there are no citations, decisions, adjudications or written statements by any Governmental Body or consent decrees or other Orders stating or alleging that any Business Products and Services are defective or unsafe or fail to meet any standards promulgated by any such Governmental Body. Since January 1, 2013, none of the Business Products and Services has been the subject of any replacement, field fix or retrofit, modification or recall campaign by Sellers and, to the Knowledge of Sellers, no facts or conditions related to any product exist which would reasonably be expected to result in such a campaign.

2.21 Product Warranty . Section 2.21 of the Disclosure schedule sets forth the standard terms and conditions of sale or lease of the Business Products and Services and all forms of guaranty, warranty, right of return, right of credit or other indemnity that legally bind Sellers in connection with any products that has not yet expired. Except as provided by applicable Law, no Business Products and Services are subject to any term and conditions, guaranty, warranty or other indemnity beyond the applicable standard terms and conditions of sale or lease set forth in Section 2.21 of the Disclosure Schedule. Each product manufactured, distributed, marketed or sold by Sellers since January 1, 2013, has been in conformity in all material respects with internal specifications, good manufacturing practices, and standard operating procedures (including in conformity in all material respects with all advertisements, commercials, promotional materials and public statements regarding such products).

2.22 Related Party Transactions . No manager, executive officer or director of either Seller or any person owning 5% or more of the equity interests in either Seller (or any of such person's immediate family members or Affiliates or associates) is a party to any Contract with or binding upon Sellers or the Purchased Assets or has any interest in any property owned by Sellers or has engaged in any transaction with any of the foregoing within the last twelve (12) months.

2.23 Brokers . Except for the fees and expenses due to Oppenheimer & Co. upon consummation of the Closing, the Sellers have not agreed or become obligated to pay, or has taken any action that might result in any Person claiming to be entitled to receive, any brokerage commission, finder’s fee or similar commission or fee in connection with any of the Transactions.

2.24 Compliance with Privacy Laws.

(a) The collection, use and retention of the Personal Information by Sellers, and the transfer of the Personal Information by Sellers to Purchaser as a result of the Transactions comply in all material respects with all Privacy Laws and are consistent with Sellers’ own privacy policies. In connection with its collection, storage, transfer (including, without limitation, any transfer across national borders) and/or use of any Personal Information, Sellers are and have been in material compliance with all applicable Privacy Laws and the requirements of any Contract or policy (including a policy or terms of use maintained or published by Sellers) to which Sellers are subject or a party. Sellers have used commercially reasonable physical, technical, organizational and administrative security measures designed to protect all Personal Information collected by it or on its behalf from and against unauthorized access, use and/or disclosure. Sellers is and has been in compliance in all material respects with all Laws relating to data loss, theft and breach of security notification obligations.

(b) There are no Actions pending or to the Knowledge of Sellers, threatened with respect to Sellers’ collection, use, disclosure or retention of the Personal Information. To the Knowledge of Sellers, Sellers have not experienced material unlawful use or, or access to, Personal Information.

(c) No decision, judgment or Order, whether statutory or otherwise, has been made or to the Knowledge of Seller is pending, and no written notice has been received by Seller pursuant to any Privacy Laws, requiring Sellers to take (or refrain from taking) any action with respect to the Personal Information.

2.25 Takeover Statutes . Sellers have taken all actions necessary so that the restrictions on take-over bids, share acquisitions, business combinations and stockholder vote requirements contained in any "moratorium," "control share acquisition," "business combination," "fair price" or other form of anti-takeover laws or regulations that are or may purport to be applicable ("Takeover Statutes"). No Takeover Statutes will apply with respect to or as a result of the Transactions or the other transactions contemplated by this Agreement.

3. Representations and Warranties of Purchaser

Purchaser represents and warrants, to and for the benefit of the Sellers, as follows:

3.1 Organization and Good Standing . Purchaser is duly organized, validly existing and in good standing under the laws of the State of Utah. Purchaser is duly qualified, authorized, registered or licensed to do business, in good standing, in any jurisdiction in which the business of Purchaser requires it to be so qualified, authorized, registered or licensed to do business, except where the failure to be so qualified would not have a Purchaser Material Adverse Effect.

3.2 Authority; Binding Nature Of Agreements; Non-Contravention

(a) Purchaser has the full power and authority to enter into and to perform its obligations under each of the Transaction Documents to which it is a party; and the execution, delivery and performance by Purchaser of the Transaction Documents to which it is a party have been duly authorized by all necessary action on the part of the board of directors (or equivalent governing body) of the Purchaser. This Agreement and each of the other Transaction Documents to which Purchaser is a party constitute legal, valid and binding obligations of Purchaser, enforceable against Purchaser in accordance with their respective terms.

(b) Neither the execution and delivery of any of the Transaction Documents, nor the consummation or performance of any of the Transactions, will directly or indirectly (with or without notice or lapse of time): (a) contravene, conflict with or result in a violation of, or give any Governmental Body or other Person the right to challenge any of the Transactions or to exercise any remedy or obtain any relief under, any Legal Requirement or any Order to which Purchaser, or any of the assets of Purchaser, are subject; (b) cause Purchaser or any Affiliate of Purchaser to become subject to, or to become liable for the payment of, any Tax on or with respect to the Transactions, other than state and local applicable sales and use tax; or (c) contravene, conflict with or result in a violation of any of the terms or requirements of, or give any Governmental Body the right to revoke, withdraw, suspend, cancel, terminate or modify, any Governmental Authorization that is held by Purchaser or any employee of Purchaser. The approval by the board of directors (or equivalent governing body) of Purchaser of this Agreement and the Transactions, which has been obtained by Purchaser, is the only approvals of any Person that are necessary to approve this Agreement and the Transactions under the laws of the State of Utah and the Organizational Documents of Purchaser.

3.3 Certain Proceedings . There is no pending Proceeding that has been commenced against Purchaser and that challenges, or may have the effect of preventing, delaying, making illegal or otherwise interfering with, any of the Transactions. To Purchaser's actual knowledge, no such Proceeding has been threatened.

3.4 Brokers . Purchaser has not become obligated to pay, and has not taken any action that might result in any Person claiming to be entitled to receive, any brokerage commission, finder's fee or similar commission or fee in connection with any of the Transactions.

4. Indemnification, Etc.

4.1 Survival Of Representations And Warranties . The representations and warranties made by Sellers, on the one hand, and Purchaser on the other hand, shall survive the Closing for twelve (12) months (the "Survival Period"); provided, however, that the Special Representations (as defined below) (other than Section 2.6 (Title to Purchased Assets), which shall survive indefinitely) shall survive the Closing until the date that is sixty (60) days following the five-year anniversary of the Closing Date; provided, further, that if at any time prior to the applicable expiration date set forth above, VI, on the one hand, or Purchaser, on the other hand, acting in good faith delivers to the other party a

written notice alleging the existence of an inaccuracy in or a breach of any of the representations and warranties made by the other party, as the case may be, and asserting a claim for recovery under Section 4.2 based on such alleged inaccuracy or breach, then the claim asserted in such notice shall survive the applicable expiration date set forth above until such time as such claim is fully and finally resolved, either by means of a written settlement agreement executed on behalf of VI, Purchaser or by means of a final, non-appealable judgment issued by a court of competent jurisdiction. The "Special Representations" means those representations and warranties contained in 2.1 (Due Organization; Subsidiaries; Etc.) 2.2(a) (Authority; Binding Nature Of Agreements), 2.6 (Title to Purchased Assets), 2.10(d) (Intellectual Property), 2.23 (Brokers); and 3.2(a) (Authority; Binding Nature Of Agreements).

4.2 Indemnification and Set-Off Rights

(a) VI shall hold harmless and indemnify each of the Purchaser Indemnitees from and against, and shall compensate and reimburse each of the Purchaser Indemnitees, for any Damages that are suffered or incurred by any of the Purchaser Indemnitees or to which any of the Purchaser Indemnitees may otherwise become subject (regardless of whether or not such Damages relate to any third-party claim) arising from: (i) any breach of any representation or warranty made by Sellers in this Agreement, (ii) any breach of any covenant, agreement, undertaking or obligation of Sellers contained in this Agreement, or of the Sellers in any other Transaction Document; (iii) any Excluded Liability, or (iv) Fraud by Sellers.

(b) Purchaser shall hold harmless and indemnify the Seller Indemnitees from and against, and shall compensate and reimburse the Seller Indemnitees for, any Damages that are suffered or incurred by the Seller Indemnitees or to which the Seller Indemnitees may otherwise become subject (regardless of whether or not such Damages relate to any third-party claim) arising from: (i) any breach of any representation or warranty made by Purchaser in this Agreement; (ii) any breach of any covenant, agreement, undertaking or obligation of Purchaser contained in this Agreement, or any other Transaction Document, (iii) Fraud by Purchaser, or (iv) the Assumed Liabilities and any other Liability of Purchaser other than the Excluded Liabilities.

(c) Right of Offset. Purchaser shall have the right to offset against any and all unpaid Contingent Payments an amount equal to the aggregate amount of any and all Damages or estimated Damages that are subject to unresolved claims of indemnification made by or on behalf of any Purchaser Indemnitee in accordance with this Section 4 (after application of any limitations thereon contained in this Section 4) on or prior to the date such Contingent Payment is made, but only to the extent such aggregate amount exceeds the then remaining Escrow Property and any amounts previously offset by Purchaser under this Section 4.2(c) and retained by Purchaser with respect to such unresolved claims for indemnification (such right of Purchaser, its "Offset Right"). Upon the final resolution of any claim made under Section 4 of this Agreement with respect to which the Offset Right was exercised, to the extent that the sum of the then-remaining Escrow Property and all amounts previously offset by Purchaser under this Section 4 with respect to any then-unresolved claims for indemnification exceed the aggregate amount of any and all Damages or estimated Damages that are subject to any unresolved claims of indemnification made or on behalf of any Purchaser Indemnitee in accordance with this Section 4 (after application of any limitations thereon contained in this Section 4) on or prior to the date such claim is resolved, then such excess shall be promptly paid to VI without interest or other offset or reduction.

4.3 Limitations

(a) General Limitations.

(i) The amount of Damages that may be recovered by the Purchaser Indemnitees pursuant to any and all claims for indemnification made under the following Sections will be limited, individually and in the aggregate, as follows: (i) Damages under Section 4.2(a)(i) (other than Special Representations) are limited to $4,000,000; (ii) Damages under Section 4.2(a)(i) with respect to Special Representations (excluding Section 2.10(d)) and Sections 4.2(a)(ii) through (iv) are limited to an amount equal to $4,000,000 plus the maximum amount of any unpaid Contingent Payments to be made on or after the date of the applicable claim, and (iii) Damages under Section 4.2(a)(i) with respect to Section 2.10(d) are limited to $10,000,000.

(ii) The amount of Damages that may be recovered by the Purchaser Indemnitees pursuant to any and all claims for indemnification under this Section 4 are limited to the Escrow Funds and set-off

in accordance with Section 4.2(c) of the amount of any unpaid Contingent Payments, subject to the limitations in Section 4.3(a)(i), which recoveries shall be the sole remedy of the Purchaser under Section 4.2. For the avoidance of doubt, there shall be no direct recourse under Section 4.2 to Sellers or any equity or other interest holder in Sellers.

(b) Mitigation. Without limiting the effect of any other limitation contained in this Section 4, for purposes of computing the amount of Damages incurred there shall be deducted an amount equal to the amount of any insurance proceeds, indemnification payments, contribution payments or reimbursements actually received by the Indemnified Parties or any of their Affiliates in connection with such Damages, net of any out-of-pocket expenses incurred or payable by such Indemnified Parties or their Affiliates with respect thereto (it being understood that the Indemnified Parties and their Affiliates shall not be obligated to seek to obtain such proceeds, payments, deductions or reimbursements prior to seeking indemnification under this Section 4, but thereafter shall use commercially reasonable efforts to obtain an insurance recovery (with no obligation to litigate or to incur additional expense other than to submit a notice to the respective insurer), and in the event that an insurance recovery is made by an Indemnified Party or any of its Affiliates with respect to any Damages for which any such Person has been indemnified hereunder, then a refund equal to the aggregate amount of the recovery shall be made promptly to the Indemnifying Party).

4.4 Defense Of Third Party Claims

(a) In the event that any party hereto or any Purchaser Indemnitee or Seller Indemnitee (each, an "Indemnified Party") desires to make a claim against another party hereto (the "Indemnifying Party"), which term includes all indemnifying parties if more than one, in connection with any third-party Proceeding at any time instituted against or made upon it for which it may seek indemnification hereunder (a "Third-Party Claim"), the Indemnified Party will notify the Indemnifying Party of such Third-Party Claim and of its claims of indemnification with respect thereto within 15 days of receiving notice of such Third-Party Claims; provided, that failure to give such notice within such 15 day period will not relieve the Indemnifying Party of its indemnification obligations under this Section 4.4, except to the extent, if any, that the Indemnifying Party has been actually and materially harmed thereby.

(b) Subject to clause (d) below, the Indemnifying Party, at its sole cost and expense, will have the right to assume the defense of the Third-Party Claim with counsel of its choice reasonably satisfactory to the Indemnified Party by written notice to the Indemnified Party within twenty (20) days after the Indemnifying Party has received notice of the Third-Party Claim; provided, however, that the Indemnifying Party must conduct the defense of the Third-Party Claim reasonably actively and diligently thereafter in order to preserve its rights in this regard; provided, further, if the Indemnifying Party is VI, such Indemnifying Party shall not have the right to defend or direct the defense of any such Third Party Claim that (x) is asserted directly by or on behalf of a Person that is a supplier or customer of the Business, or (y) seeks an injunction or other equitable relief against the Indemnified Party. The Indemnified Party shall have the right to participate in the defense of any Third Party Claim with counsel selected by it subject to the Indemnifying Party's right to control the defense thereof. The fees and disbursements of such counsel shall be at the expense of the Indemnified Party, provided, that if in the reasonable opinion of counsel to the Indemnified Party, (A) there are legal defenses available to an Indemnified Party that are different from or additional to those available to the Indemnifying Party; or (B) there exists a conflict of interest between the Indemnifying Party and the Indemnified Party that cannot be waived, the Indemnifying Party shall be liable for the reasonable fees and expenses of counsel to the Indemnified Party in each jurisdiction for which the Indemnified Party determines counsel is required. If the Indemnifying Party elects not to compromise or defend such Third Party Claim, fails to promptly notify the Indemnified Party in writing of its election to defend as provided in this Agreement, or fails to diligently prosecute the defense of such Third Party Claim, the Indemnified Party may pay, compromise, defend such Third Party Claim and seek indemnification for any and all Damages based upon, arising from or relating to such Third Party Claim; provided, however, that the Indemnified Party will not settle a Third-Party Claim without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably conditioned, withheld or delayed).

Notwithstanding any other provision of this Agreement, the Indemnifying Party shall not enter into settlement of any Third Party Claim without the prior written consent of the Indemnified Party. If a firm offer is made to settle a Third Party Claim without leading to liability or the creation of a financial or other obligation on the part of the Indemnified Party and provides, in customary form, for the unconditional release of each Indemnified Party from all liabilities and obligations in connection with such Third Party Claim and the Indemnifying Party desires to accept and agree to such

offer, the Indemnifying Party shall give written notice to that effect to the Indemnified Party. If the Indemnified Party fails to consent to such firm offer within fifteen (15) days after its receipt of such notice, the Indemnified Party may continue to contest or defend such Third Party Claim and in such event, the maximum liability of the Indemnifying Party as to such Third Party Claim shall not exceed the amount of such settlement offer (and fees and expenses incurred to date). If the Indemnified Party fails to consent to such firm offer and also fails to assume defense of such Third Party Claim, the Indemnifying Party may settle the Third Party Claim upon the terms set forth in such firm offer to settle such Third Party Claim. If the Indemnified Party has assumed the defense, it shall not agree to any settlement without the written consent of the Indemnifying Party (which consent shall not be unreasonably conditioned, withheld or delayed).

(c) In the event the Indemnifying Party fails to assume the defense of the Third-Party Claim in accordance with Section 4.4(b) above, (i) the Indemnified Party may defend against the Third-Party Claim in any manner it reasonably may deem appropriate; provided that the Indemnified Party will not consent to the entry of any judgment or enter into any settlement with respect to the Third-Party Claim without the prior written consent of the Indemnifying Party (which consent will not be unreasonably conditioned, withheld or delayed by the Indemnifying Party), (ii) the Indemnifying Party will remain responsible for any Damages the Indemnified Party may suffer as a result of such Third-Party Claim to the extent provided in this Section 4, and (iii) Indemnified Party shall retain all remedies to which it is entitled under this Section 4.

(d) Notwithstanding the foregoing, the Indemnified Party shall have the right, at its discretion, to be responsible for the prosecution, defense and settlement of any Third-Party Claim if such Third-Party Claim seeks to impose any criminal penalty on the Indemnified Party (the "Indemnified Party-Handled Claims"). The Indemnified Party shall pursue actively and diligently the prosecution, defense or settlement of all Indemnified Party-Handled Claims, through counsel of its selection, until such time, if any, that such Indemnified Party shall elect not to pursue indemnification with respect to such Third-Party Claim. The Indemnified Party shall permit the Indemnifying Party, upon its reasonable request, to participate in the process of any settlement or other resolution of any Indemnified Party-Handled Claims until such time, if any, that the Indemnified Party shall elect not to pursue indemnification with respect to such Third-Party Claim; provided, that such Indemnified Party will not consent to the entry of any judgment or enter into any settlement with respect to any Indemnified Party-Handled Claims without the prior written consent of the Indemnifying Party (which consent will not be unreasonably conditioned, withheld or delayed by the Indemnifying Party). The Indemnifying Party will remain responsible for any Damages of the Indemnified Party as a result of such Indemnified Party-Handled Claims to the extent subject to indemnification under this Section 4, and the Indemnified Party shall retain all remedies to which it is entitled under this Section 4.

4.5 Payment of Claims . In the event of any claim for indemnification hereunder, the Indemnified Party will advise the Indemnifying Party that is required to provide indemnification therefor in writing within 90 days of discovery of facts relad to such claim. If within 30 days of receipt of such notice, the Indemnifying Party has not contested such claim in writing, the Indemnifying Party will satisfy the full amount thereof, subject to the limitations on duration, amount and source of recovery set forth in Section 4.3, within ten days after the expiration of such period. Without limiting the foregoing, nothing in this Section 4 shall be deemed to require the Indemnified Party to obtain jurisdiction over the Indemnifying Party, or pursue any process in connection therewith beyond that expressly required by the terms of this Section 4. The parties agree that the payment of any indemnity hereunder shall be treated as an adjustment to the Cash Consideration for Tax purposes to the extent permitted by applicable Legal Requirements.

4.6 Exercise of Remedies by Indemnitees Other Than Purchaser . No Purchaser Indemnitee (other than Purchaser or any successor thereto or assign thereof) shall be permitted to assert any indemnification claim or exercise any other remedy under this Agreement unless Purchaser (or any successor thereto or assign thereof) shall have consented to the assertion of such indemnification claim or the exercise of such other remedy. No Seller Indemnitee (other than VI or any successor thereto or assign thereof) shall be permitted to assert any indemnification claim or exercise any other remedy under this Agreement unless VI (or any successor thereto or assign thereof) shall have consented to the assertion of such indemnification claim or the exercise of such other remedy.

4.7 Effect of Investigation . The representations, warranties and covenants of the Indemnifying Party, and the Indemnified Party's right to indemnification with respect thereto, shall not be affected or deemed waived by reason of any investigation made by or on behalf of the Indemnified Party or by reason of the fact that the Indemnified Party or

any of its Representatives knew or should have known that any such representation or warranty is, was or might be inaccurate.

4.8 Materiality . For purposes of this Section 4, the amount of any Damages for breach of a representation or warranty shall be determined without regard to any materiality, Material Adverse Effect or other similar qualification contained in or otherwise applicable to such representation or warranty (but not in determining whether there is a breach of any representation or warranty).

4.9 Sole Remedy. Except for fraud relating to the transactions contemplated hereby, which shall not be subject to any limitations in this Section 4, Purchaser's right to seek specific performance of Sellers' obligations pursuant to Section 5.3, Section 5.4 and any other covenant, duty or obligation of Sellers that by their terms extend beyond the survival periods set forth in this Section 4 and the rights of Purchaser and Sellers under Section 1.3, the respective rights of the parties under this Section 4 shall be the sole and exclusive rights and remedies available to such parties with respect to the matters set forth in this Agreement, and each of the parties hereby absolutely agrees and covenants not to seek any remedy at law or equity relating to the Transactions other than pursuant to this Section 4.

4.10 Notice of Offset.

(a) Solely with respect to Damages under Section 4.2(a)(i) with respect to Section 2.9(d), Purchaser's Offset Right shall be asserted by giving written notice to VI of a claim for indemnification in accordance with this Section 4, and including in such notice the estimated amount (the "Offset Amount"), of the Damages otherwise subject to indemnification hereunder (after application of any limits thereto) relating to such Claim actually incurred or reasonably expected to be incurred that will be subject to the offset right set forth herein (an "Offset Notice").

(b) Offset Objection. VI may in good faith, at any time on or before the thirtieth (30^{th}) Business Day following its receipt of an Offset Notice (the "Offset Objection Period"), object to the Offset Amount provided in the Offset Notice by delivering written notice to Purchaser (an "Offset Objection"). The Offset Objection shall set forth in reasonable detail the good faith reasons for the objection to such Offset Amount. If VI does not timely deliver an Offset Objection, or deliver an Offset Objection that does not object to all of the Offset Amount set forth in the Offset Notice, VI shall be deemed to have accepted and agreed to the offset of all or such portion of the Offset Amount specified in the Offset Notice, provided, that any such acceptance of the Offset Amount shall not be deemed to be an acceptance of liability for the Damages included in such Offset Amount or the associated claim, and Sellers shall retain all of their rights under this Article 4 in respect of such matters. If VI timely deliver an Offset Objection, Purchaser and Sellers (or their respective representatives) shall attempt in good faith to agree upon the rights of the respective parties with respect to the disputed Offset Amount. If the parties are not able to fully resolve all such differences within thirty (30) days from Purchaser's receipt of an Offset Objection, either Purchaser or VI may submit the dispute to arbitration by delivering written notice to the other party. The dispute will be finally settled by binding arbitration in Chicago, Illinois, before a single arbitrator. The arbitration will be administered by JAMS pursuant to its Comprehensive Arbitration Rules and Procedures (or pursuant to its Streamlined Arbitration Rules and Procedures then in effect if the amount in controversy is $250,000 or less). The arbitrator will be chosen in accordance with applicable JAMS rules and procedures then in effect. The arbitrator will determine, without actually determining the amount of Damages or whether any claim for indemnification is valid or reasonable, the maximum reasonable estimate of the amount of Damages (within any limits herein that may be applicable to the type of claim asserted by Purchaser) that have been incurred or that reasonably could be expected to be incurred in connection with such claim for indemnification that will be subject to the offset right set forth herein (such amount, the "Maximum Withheld Amount"). If the arbitrator determines that the Offset Amount is greater than the Maximum Withheld Amount, then Purchaser shall reduce the Offset Amount to the Maximum Withheld Amount. The arbitrator's sole role will be to determine the Maximum Withheld Amount, and not Damages for which indemnification is being sought. The arbitrator will not issue a reasoned opinion with respect thereto. Purchaser and Sellers agree that the decision of the arbitrator will have no effect on the determination of the actual Damages for which indemnification is sought or allowed, and will not be admissible in any dispute with respect to the actual amount of Damage as evidence.

5. Covenants

5.1 Books and Records . For a period of seven years after the Closing Date, each Seller, on the one hand, and Purchaser, on the other hand, shall provide, or cause to be provided, to each other and each of their respective Representatives, as soon as reasonably practicable after written request therefor and at the requesting party's sole expense, reasonable access, during normal business hours, to any books, records, documents, files and correspondence in the possession or under the control of the other party that the requesting party reasonably needs (A) to comply with reporting, disclosure, filing or other requirements imposed on the requesting party by a Governmental Body having jurisdiction over the requesting party in connection with the transactions contemplated by this Agreement, (B) for use in any other judicial, regulatory, administrative or other Proceeding or in order to satisfy Tax, audit, accounting, claims, regulatory, litigation or other similar requirements arising from the Transactions, (C) for use in any Proceeding relating to the infringement of the Intellectual Property rights of another Person, (D) in connection with Sellers' obligations pursuant to Excluded Liabilities, or (E) to comply with its obligations under this Agreement; provided that no party shall be required to provide access to or disclose information where such access or disclosure (y) is related to any claim against a party or such party's Affiliates by the requesting party or its Affiliates or (z) would violate any applicable Legal Requirement or waive any attorney-client or other similar privilege, and each party may redact information regarding itself or its Affiliates or otherwise not relating to the other party and its Affiliates, the Purchased Assets or the Business, and, in the event such provision of information could reasonably be expected to violate any applicable Legal Requirement or Contract or waive any attorney-client or other similar privilege, the parties shall take commercially reasonable measures to make substitute disclosure arrangements in a manner reasonably appropriate under the circumstances in which the restrictions of this sentence apply. Any information owned by a party that is provided to a requesting party pursuant to this Section 5.1 shall be deemed to remain the property of the providing party. Unless specifically set forth herein, nothing contained in this Agreement shall be construed as granting or conferring rights of license or otherwise in any such information. No party shall have any Liability to any other party in the event that any information exchanged or provided pursuant to this Section 5.1 is found to be inaccurate. No party shall have any Liability to any other party if any information is destroyed or lost after commercially reasonable efforts by such party to retain such information in accordance with its regular document retention policy.

5.2 Publicity. Neither Seller shall make any public release or announcement concerning the transactions contemplated hereby without the prior written consent of Purchaser. Purchaser shall provide Sellers with an opportunity to review and provide comments on the press release pursuant to which Purchaser announces the transactions contemplated hereby, but shall not be otherwise prohibited with respect to releases or announcements regarding this Agreement or the transactions contemplated hereby.

5.3 Confidentiality . From and after the Closing, Sellers shall, and shall cause their Affiliates to, maintain, and shall use their reasonable best efforts (including through enforcement of nondisclosure agreements) to cause its or their respective Representatives to maintain all information and materials that are valuable and not generally known by others concerning the Purchased Assets and Assumed Liabilities in the strictest confidence and shall limit access to such information and materials to its Representatives and third parties who are reasonably needed to have such materials or know such information for a legitimate business purpose and who are subject to confidentiality obligations, except to the extent that Sellers can show that such information (a) is, or becomes generally known to the public otherwise than by the fault of the Sellers, (b) is legally transmitted or disclosed to the Sellers without restriction on disclosure by a third party that owes no obligation of confidentiality to the Purchaser, (c) was independently developed by the Sellers without reference to such information or materials, or (d) is disclosed by Purchaser to a third party without any obligation of confidentiality. The Sellers may also disclose such materials and information only to the extent they are required by applicable Legal Requirements or Order to be disclosed, provided that the Sellers use commercially reasonable efforts to give Purchaser prompt written notice of such requirement prior to such disclosure and assist the Purchaser in obtaining an order or other appropriate remedy prohibiting or limiting such disclosure. If, in the absence of a protective order or the receipt of a waiver hereunder, Sellers are nonetheless compelled to disclose such materials or information, the Sellers may disclose only that portion of such materials or information which Sellers are legally required to disclose, and Sellers will exercise commercially reasonable efforts, at the Purchaser's expense, to obtain assurance that confidential treatment will be accorded to such material or information. Purchaser shall promptly reimburse Sellers for any reasonable expenses incurred by Sellers to obtain confidential treatment for such materials or information upon the Sellers submission of documentation evidencing such expenses.

5.4 Seller Non-Competition; Non-Solicitation

(a) Sellers hereby acknowledge and agree that: (i) each Seller is engaged in the Business with respect to the treatment of superficial vein disease (the "Field"); (ii) VI, directly and indirectly through Management, is conducting the Business throughout the entire world (the "Territory"); and (iii) VI will directly, and Management will indirectly through VI, receive significant consideration in connection with the Closing of the Transactions. For purposes of this Section 5.4, "Term" means the period commencing on the Closing Date and ending on the third anniversary of the Closing Date.

(b) During the Term, no Seller, for itself or through or on behalf of any other Person (other than Purchaser), whether as an equity holder, partner, consultant, advisor, creditor or otherwise, as applicable, will, anywhere in the Territory:

(i) engage in, participate in or acquire any financial or beneficial interest in (which for the avoidance of doubt will include engagement as an independent contractor for), any business that engages in the Business in the Field or otherwise designs, develops, promotes, sponsors, markets, sells, supplies, resells, distributes, installs, supports, maintains, licenses, sublicenses, provides, performs or offers any product or service that is being offered by or on behalf of the Business in the Field on the date hereof; provided, however, that nothing in this Section 5.4(b)(i) shall prevent a Seller from owning as a passive investment less than two percent (2%) of the outstanding shares of the capital stock (or ownership interests) of a publicly held company or investment fund, if such Seller is not otherwise associated directly or indirectly with such company or any affiliate of such company;

(ii) encourage, induce, or solicit any employee to leave his or her employment with Purchaser (it being understood that the placement of general advertisements that are not targeted directly or indirectly towards an employee shall not be deemed to be a breach of this Section 5.4(b)(ii)); or

(iii) encourage, induce, or solicit any customer, distributor, vendor, marketer or sponsor of Purchaser to cease its customer, distributor, vendor, marketer or sponsor relationship with the Purchaser.

(c) It is agreed that the restrictions contained in this Section 5.4 are reasonable and necessary for the protection of the interests of Purchaser, that any violation of these restrictions could cause substantial and irreparable injury to Purchaser, that a breach of this Agreement by the Sellers may not be adequately compensated in an action for damages at law, and that equitable relief may be necessary to protect Purchaser from a violation of this Agreement and from the harm which this Agreement is intended to prevent. By reason thereof, the Sellers acknowledge that, notwithstanding anything in this Agreement to the contrary, in the event any of the covenants contained in this Section 5.4 are breached, Purchaser shall be entitled to seek, in addition to any other remedies and damages available under this Agreement or otherwise, preliminary and permanent injunctive and other equitable relief to restrain the violation of such covenants by the Sellers or by any Person or Persons acting for or with the Sellers in any capacity whatsoever. The Sellers acknowledge that no specification in this Section 5.4(c) of a specific legal or equitable remedy may be construed as a waiver of or prohibition against pursuing other legal or equitable remedies in the event of a breach of this Section 5.4 by the Sellers.

5.5 Tax Covenants

(a) Purchaser and the Sellers agree to furnish or cause to be furnished to the other, upon reasonable request, as promptly as practicable, such information and assistance relating to the Purchased Assets, including, without limitation, access to books and records, as is reasonably necessary for the filing of all Tax Returns by Purchaser or the Sellers, the making of any election relating to Taxes, the preparation for any audit by any Tax authority and the prosecution or defense of any claim, suit or proceeding relating to any Tax. Each of Purchaser and Sellers shall retain all books and records with respect to Taxes pertaining to the Purchased Assets until the earlier of the expiration of the applicable statute of limitations or the sixth (6th) anniversary of the Closing Date.

(b) To the extent not otherwise provided in this Agreement, VI shall be responsible for and shall promptly pay when due all Property Taxes and any other Taxes levied with respect to the Purchased Assets attributable to the Pre-Closing Tax Period. All Property Taxes levied with respect to the Purchased Assets for the Straddle Period shall be apportioned between Purchaser, on one hand, and VI, on the other hand, based on the number of days of such Straddle Period included in the Pre-Closing Tax Period and the number of days of such Straddle Period included in

the Post-Closing Tax Period. VI shall be liable for the proportionate amount of such Property Taxes that is attributable to the Pre-Closing Tax Period, and Purchaser shall be liable for the proportionate amount of such Property Taxes that is attributable to the Post-Closing Tax Period. Upon receipt of any bill for such Property Taxes or other Taxes, Purchaser or VI, as applicable, shall present a statement to the other setting forth the amount of reimbursement to which each is entitled under this Section 5.5(b) together with such supporting evidence as is reasonably necessary to calculate the proration amount. The proration amount shall be paid by the party owing it to the other within ten days after delivery of such statement. In the event that Purchaser or VI makes any payment for which it is entitled to reimbursement under this Section 5.5(b), the applicable party shall make such reimbursement promptly but in no event later than ten days after the presentation of a statement setting forth the amount of reimbursement to which the presenting party is entitled along with such supporting evidence as is reasonably necessary to calculate the amount of reimbursement.

(c) All transfer, stamp, documentary, sales, use, registration, value-added and other similar Taxes (including any penalties and interest) incurred in connection with this Agreement and the transactions contemplated hereby ("Transfer Taxes") will be borne 50% by the Sellers and 50% by Purchaser, when due. Purchaser and each Seller shall, at its own expense, timely file any Tax Return or other document with respect to such Taxes or fees (and the parties shall cooperate with respect thereto as necessary).

(d) The Sellers shall promptly notify Purchaser in writing upon receipt by the Sellers of notice of any pending or threatened Tax audits or assessments relating to the income, properties or operations of the Sellers that reasonably may be expected to relate to or give rise to a lien on the Purchased Assets or the Business. Each of Purchaser and the Sellers shall promptly notify the other in writing upon receipt of notice of any pending or threatened Tax audit or assessment challenging the Allocation.

(e) Any payments made to any party pursuant to this Section 5.5 shall constitute an adjustment of the Cash Consideration for Tax purposes and shall be treated as such by Purchaser and the Seller on their Tax Returns to the greatest extent permitted by Legal Requirements.

5.6 Further Actions ; Post-Closing Payments.

(a) General Assurances. In addition to the actions specifically provided for elsewhere in this Agreement, each of the parties will cooperate with each other and use its reasonable efforts, after the Closing Date, to take, or cause to be taken, all actions, and to do, or cause to be done, all things reasonably necessary or appropriate on its part to give effect to the transactions contemplated by this Agreement and the Transaction Documents, the execution and delivery of such other instruments, certificates, agreements and other documents and the performance of such other actions as may be necessary or reasonably desirable to consummate and implement expeditiously the transactions contemplated by this Agreement and the other Transaction Documents; provided that all such actions are in accordance with applicable Legal Requirements. Notwithstanding the foregoing, from time to time, each Seller will execute and deliver such further instruments, certificates, agreements and other documents and perform such other actions, at Purchaser's sole expense, as Purchaser may reasonably require to more effectively transfer to Purchaser any of the Purchased Assets. The obligations of each party under this Section 5.6(a) shall expire 12 months after the Closing Date.

(b) Payments. In the event that, on or after the Closing, either party receives payments or funds due or belonging to the other party pursuant to the terms of this Agreement or any of the Transaction Documents, then the party receiving such payments or funds shall promptly forward or cause to be promptly forwarded such payments or funds to the proper party (with appropriate endorsements, as applicable), and will account to such other party for all such receipts. The parties acknowledge and agree that, except as otherwise specifically provided in this Agreement, there is no right of offset regarding such payments and a party may not withhold funds received from third parties for the account of the other party in the event there is a dispute regarding any other issue under this Agreement or any other Transaction Documents. Without limiting the foregoing provisions of this Section 5.6(b), each Seller agrees that Purchaser shall, following the Closing, have the right and authority to endorse any checks or drafts received by Purchaser in respect of any account receivable of the Business included in the Purchased Assets and such Seller shall furnish to Purchaser such evidence of this authority as Purchaser may reasonably request. Following the Closing, if Purchaser or its Affiliates receives any mail or packages addressed to a Seller and delivered to Purchaser not relating to the Purchased Assets or the Assumed Liabilities, Purchaser shall promptly deliver (or cause to be delivered) such mail or packages to such Seller. Following the Closing, if any Seller receives any mail or packages delivered to such Seller

relating to the Purchased Assets or the Assumed Liabilities, such Seller shall promptly deliver (or cause to be delivered) such mail or packages to Purchaser.

(c) Accounts Receivable. Upon the reasonable request of Sellers, Purchaser will cooperate in good faith to provide to Sellers such information in the possession of Purchaser reasonably necessary to assist Sellers to collect accounts receivable of the Sellers that are Excluded Assets. In the event that Purchaser receives payment for any such accounts receivable that are Excluded Assets, pursuant to Section 5.6(b), Purchaser shall promptly deliver the funds received, and all accompanying documentation, to Sellers.

(d) Additional Actions. Sellers shall, as soon as reasonably practical after Closing, terminate any distribution agreements that are not Purchased Contracts, in accordance with the respective termination terms of such distribution agreements. If such distribution agreements are not immediately terminable, but require a notice period prior to termination, and if during such notice period Sellers are required to repurchase any inventory in connection with such termination, and only if such inventory has a shelf-life of not less than one (1) year and is saleable, Purchaser shall purchase such inventory from Sellers at the cost to Sellers of such repurchases. In addition, if Sellers are required by the express terms of such distribution agreements, or as a result of any negotiated compromise or settlement approved by Purchaser in advance (such approval not to be unreasonably withheld), to pay a termination fee in connection with the termination of any such distribution agreement, Purchaser and VI shall each be responsible for paying fifty (50%) of the respective termination fee, with Purchaser reimbursing VI any amounts fronted on Purchaser's behalf in accordance with this Section 5.6(d).

(e) Purchaser and Sellers shall each designate an individual representative who will work together in good faith to accomplish the intent of this Section 5.6(d).

5.7 Employees and Employee Benefits.

(a) Offers of Employment. The Sellers shall cooperate with Purchaser to make Business Employees reasonably accessible to Purchaser and to assist Purchaser in its efforts to make employment or consulting offers to such Business Employees that it desires to employ post-Closing. Prior to the Closing Date, Purchaser shall notify the Sellers in writing of the names of all Business Employees to whom Purchaser wishes to make an offer of employment. Purchaser shall have the right to make such offers on such terms and conditions and in such classification (exempt vs. non-exempt or contractor vs. employee) as it deems appropriate. In connection with the Closing, each Business Employee to whom Purchaser offers employment and who become employees of Purchaser as of the Closing Date are referred to herein as a "Transferred Employee". Effective as of the Closing Date, the Sellers shall waive and release any restrictive covenants otherwise applicable to Transferred Employees, and shall reasonably cooperate with Purchaser to transition such Transferred Employees to Purchaser. Sellers shall be solely responsible, and Purchaser shall have no obligations whatsoever for, any compensation or other amounts payable to any current or former employee, officer, manager, director, independent contractor or consultant of the Business, including, without limitation, hourly pay, commission, bonus, salary, accrued vacation, fringe, pension or profit sharing benefits or severance pay for any period relating to the service with Sellers at any time on or prior to the Closing Date, and Seller shall pay all such amounts to all entitled persons within the time required by applicable Legal Requirements.

(b) Service Credit. For purposes of eligibility to participate and vesting (but not benefit accrual) under the employee benefit plans of Purchaser and its affiliates providing benefits to any Transferred Employee at any time after the Closing (the "New Plans"), each Transferred Employee shall be credited with his or her years of service with Sellers and their Affiliates (and any predecessors) before the Closing Date, to a similar extent as such Transferred Employee was entitled, before the Closing to credit for such service under any comparable Plan in which such Transferred Employee participated immediately before the Closing Date.

(c) WARN. The Sellers agree to provide any required notice under and to otherwise comply with, and to retain all Liabilities relating to, the WARN Act, with respect to any event affecting Business Employees on or prior to the Closing (including as a result of the transactions contemplated by this Agreement, but not in respect of any obligation triggered, in whole or in part, by terminations occurring). At the Closing, the Sellers shall notify Purchaser of any "employment loss" (as defined in the WARN Act) experienced by any Business Employee during the 90-day period prior to the Closing Date.

(d) No Third-Party Beneficiaries. The provisions of this Section 5.7 are solely for the benefit of the respective parties to this Agreement and nothing in this Section 5.7, express or implied, shall confer upon any employee, consultant, manager or other service provider (or any dependent, successor, legal representative or

beneficiary thereof), any rights or remedies, including any right to continuance of employment or any other service relationship with Purchaser or any of its Affiliates, or any right to compensation or benefits of any nature or kind whatsoever under this Agreement. Nothing in this Section 5.7, express or implied, shall be: (i) an amendment or deemed amendment of any plan providing benefits to any employee, or (ii) construed to interfere with the right of Purchaser or its Affiliates to terminate the employment or other service relationship of any of the Transferred Employees at any time, with or without cause, or restrict any such entity in the exercise of their independent business judgment in modifying any of the terms and conditions of the employment or other service arrangement of the Transferred Employees, or (iii) deemed to obligate any Purchaser or its Affiliates to adopt, enter into or maintain any employee benefit plan or other compensatory plan, program or arrangement at any time.

5.8 No Additional Representations; Disclaimer.

(a) Purchaser acknowledges and agrees that no Seller, nor any of their respective Affiliates or Representatives, nor any other Person acting on behalf such Seller or any of its Affiliates or Representatives, has made any (and Purchaser and its Affiliates have not relied on any) representation or warranty, express or implied, as to the accuracy or completeness of any information regarding such Seller or any of its businesses or assets, except as expressly set forth in Article 2 of this Agreement.

(b) In connection with Purchaser's investigation of Sellers, Purchaser may have received from or on behalf of Sellers certain projections, including projected statements of operating revenues and income from operations of Sellers. Purchaser acknowledges that there are uncertainties inherent in attempting to make projections and other forecasts and plans, that Purchaser is familiar with such uncertainties, that Purchaser is taking full responsibility for making its own evaluation of the adequacy and accuracy of all projections and other forecasts and plans so furnished to it (including the reasonableness of the assumptions underlying such estimates, projections and forecasts), and that Purchaser shall have no claim against any Seller or any other Person with respect thereto. Accordingly, no Seller makes any representations or warranties whatsoever with respect to such estimates, projections and other forecasts and plans (including the reasonableness of the assumptions underlying such estimates, projections and forecasts), and Purchaser has not relied thereon.

6. Additional Provisions

6.1 Fees and Expenses . Subject to any terms to the contrary set forth herein, each party hereto shall pay its own costs and expenses (including, if applicable, any broker's or finder's fees and expenses of its representatives) incurred in connection with this Agreement and the Transactions (whether or not such Transactions shall be consummated).

6.2 Notices. Any notice or other communication required or permitted to be delivered to any party under this Agreement shall be in writing and shall be deemed properly delivered, given and received when delivered (by hand, by registered mail, by courier or express delivery service or by facsimile or email) to the address, email address or facsimile telephone number set forth beneath the name of such party below (or to such other address, email address

or facsimile telephone number as such party shall have specified in a written notice given to the other parties hereto):

if to the Sellers:

1 Pine Hill Drive Two Batterymarch Park, Suite 100
Quincy, MA 02169
Attention: President and CEO
Facsimile: 203.350.0319
Email: cdraper@vascularinsights.com

with copies to:

Latham & Watkins LLP
200 Clarendon Street
Boston, MA 02116
Attn: Johan (Hans) V. Brigham
Facsimile: 617.948.6001
Email: johan.brigham@lw.com

Michael L. Sommer
17925 Kings Point Drive, Ste. I
Cornelius, NC 28031
Facsimile: 704.659.4097
Email: msommer@gcondemand.com

Brenner, Saltzman & Wallman LLP
271 Whitney Avenue
New Haven, CT 06511
Attn: George Brencher IV
Facsimile: 203.772.3907
Email: gbrencher@bswlaw.com

if to Purchaser:

1600 West Merit Parkway
South Jordan, Utah 84095
Attn: Brian G. Lloyd, Chief Legal Officer
Facsimile: (801) 208-4238
Email: Brian.Lloyd@merit.com

with a copy to:

Parr Brown Gee & Loveless, PC
101 South 200 East
Salt Lake City, Utah 84111
Attn: Michael J. Schefer
Facsimile: (801) 532-7750
Email: mschefer@parrbrown.com

6.3 Governing Law; Venue . This Agreement shall be construed in accordance with, and governed in all respects by, the internal laws of the State of New York (excluding any rule of law that would cause the application of the laws of any jurisdiction other than the laws of the State of New York). Any Action based upon, arising out of or related to this Agreement or the transactions contemplated hereby may be brought in the New York State court, or federal court of the United States of America sitting in the State of New York), and, in each case, appellate courts therefrom, and each of the parties irrevocably submits to the exclusive jurisdiction of each such court in any such Action, waives any objection it may now or hereafter have to personal jurisdiction, venue or to convenience of forum, agrees that all claims in respect of such Action shall be heard and determined only in any such court, and agrees not to bring any Action arising out of or relating to this Agreement or the transactions contemplated hereby in any other court. Nothing herein contained shall be deemed to affect the right of any party to serve process in any manner permitted by law or to commence legal proceedings or otherwise proceed against any other party in any other jurisdiction, in each case, to enforce judgments obtained in any Action brought pursuant to this Section 6.3. Each party hereto hereby waives, to the fullest extent permitted by applicable law, any right it may have to a trial by jury in respect of any Action arising out of this Agreement or the transactions contemplated hereby. Each party hereto (i) certifies that no representative, agent or attorney of any other party has represented, expressly or otherwise, that such party would not, in the event of any Action, seek to enforce the foregoing waiver and (ii) acknowledges that it and the other parties hereto have been induced to enter into this Agreement by, among other things, the mutual waiver and certifications in this Section 6.3.

6.4 Successors and Assigns; Parties in Interest . This Agreement shall be binding upon: Sellers and their respective successors and assigns (if any); and Purchaser and its respective successors and assigns (if any). This Agreement shall inure to the benefit of: the Sellers; Purchaser; the other Indemnitees (subject to Section 4.6; and the respective successors and assigns (if any) of the foregoing. This Agreement shall not be assigned by any party hereto to any other Person by operation of law or otherwise without the prior written consent of the other parties hereto, provided, however that the rights and obligations of any party hereunder may be assigned to one or more Affiliates of such party so long as such party remains ultimately liable for its obligations hereunder subject to Section 1.4(j). Without limiting the generality of the foregoing, (a) no employee of the Sellers shall have any rights under this Agreement or under any of

the other Transaction Documents, and (b) no creditor of the Sellers shall have any rights under this Agreement or any of the other Transaction Documents.

6.5 Specific Performance . The parties agree that: (a) in the event of any breach or threatened breach by the a party of any covenant, obligation or other provision set forth in this Agreement, the non-breaching party shall be entitled to seek (i) a decree or order of specific performance or mandamus to enforce the observance and performance of such covenant, obligation or other provision, and (ii) an injunction restraining such breach or threatened breach; and (b) the non-breaching party shall not be required to provide any bond or other security in connection with any such decree, order or injunction or in connection with any related action or Proceeding. The equitable remedies described in this Section 6.5 shall be in addition to, and not in lieu of, any other remedies at law or in equity that the parties to this Agreement may elect to pursue.

6.6 Waiver ; Amendment. (a) No failure on the part of any Person to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of any Person in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver of such power, right, privilege or remedy; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy; and (b) no Person shall be deemed to have waived any claim arising out of this Agreement, or any power, right, privilege or remedy under this Agreement, unless the waiver of such claim, power, right, privilege or remedy is expressly set forth in a written instrument duly executed and delivered on behalf of such Person; and any such waiver shall not be applicable or have any effect except in the specific instance in which it is given. This Agreement may not be amended, modified, altered or supplemented other than by means of a written instrument duly executed and delivered on behalf of Purchaser and the Sellers.

6.7 Severability . Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction. If the final judgment of a court or arbitrator of competent jurisdiction declares that any term or provision hereof is invalid or unenforceable, the parties hereto agree that the court or arbitrator making such determination shall have the power to limit the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, and this Agreement shall be enforceable as so modified. In the event such court or arbitrator does not exercise the power granted to it in the prior sentence, the parties hereto agree to replace such invalid or unenforceable term or provision with a valid and enforceable term or provision that will achieve, to the extent possible, the economic, business and other purposes of such invalid or unenforceable term.

6.8 Entire Agreement . The Transaction Documents set forth the entire understanding of the parties relating to the subject matter thereof and supersede all prior agreements and understandings among or between any of the parties relating to the subject matter thereof. The letter of intent, dated November 26, 2018, by and between Purchaser and VI, shall be deemed terminated in all respects without continuing liability of either party.

6.9 No Tax Advice . Each party hereto acknowledges and agrees that it has not received and is not relying upon Tax advice from any other party hereto, and that it has and will continue to consult its own advisors with respect to Taxes.

6.10 Bulk Sales Laws . The parties hereby waive compliance with the provisions of any bulk sales, bulk transfer or similar Laws of any jurisdiction that may otherwise be applicable with respect to the sale of any or all of the Purchased Assets to Purchaser; it being understood that any Liabilities arising out of the failure of Sellers to comply with the requirements and provisions of any bulk sales, bulk transfer or similar Laws of any jurisdiction which would not otherwise constitute Assumed Liabilities shall be treated as Excluded Liabilities.

6.11 Miscellaneous . (a) For purposes of this Agreement, whenever the context requires: the singular number shall include the plural, and vice versa; the masculine gender shall include the feminine and neuter genders; the feminine gender shall include the masculine and neuter genders; and the neuter gender shall include the masculine and feminine genders; (b) the parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved against

the drafting party shall not be applied in the construction or interpretation of this Agreement; (c) as used in this Agreement, the words “include” and “including,” and variations thereof, shall not be deemed to be terms of limitation, but rather shall be deemed to be followed by the words “without limitation”; (d) except as otherwise indicated, all references in this Agreement to “Sections,” “Schedules,” “Annexes” and “Exhibits” are intended to refer to Sections, Schedules, Annexes and Exhibits to this Agreement; (e) time is of the essence with respect to the performance of this Agreement; (f) the underlined headings contained in this Agreement are for convenience of reference only, shall not be deemed to be a part of this Agreement and shall not be referred to in connection with the construction or interpretation of this Agreement; and (g) this Agreement may be executed in several counterparts (including by facsimile and electronic delivery (PDF)), each of which shall constitute an original and all of which, when taken together, shall constitute one agreement.

The parties to this Agreement have caused this Agreement to be executed and delivered as of the date first written above.

PURCHASER:

MERIT MEDICAL SYSTEMS, INC.

By: /s/ Fred P. Lampropoulos
Printed Name: Fred P. Lampropoulos
Title: Chairman and Chief Executive Officer

SELLERS:

VASCULAR INSIGHTS, LLC

By: /s/ James E. Draper III
Printed Name: James E. Draper III
Title: President & CEO

VI MANAGEMENT, INC.

By: /s/ James E. Draper III
Printed Name: James E. Draper III
Title: President

Exhibit A

Definitions

For purposes of the Agreement (including this Exhibit A):

"Action" means any claim, action, cause of action, demand, lawsuit, arbitration, inquiry, audit, notice of violation, proceeding, litigation, citation, summons, subpoena or investigation of any nature, civil, criminal, administrative, regulatory or otherwise, whether at law or in equity.

"Affiliate" of a Person means a Person that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, the first-mentioned Person. For purposes of this definition, "control," when used with respect to any specified Person, means the power to direct or cause the direction of the management and policies of such Person, directly or indirectly, whether through ownership of voting securities or by contract or otherwise, and the terms "controlling" and "controlled by" have meanings correlative to the foregoing.

"Anti-Corruption Laws" means the U.S. Foreign Corrupt Practices Act (15 U.S.C. §§ 78 dd-1, et seq.), and the UK Bribery Act of 2010 and all similar applicable Anti-Corruption Laws and regulations.

"Bundle Product Component" means a product that satisfies all of the following conditions: (x) such product is not a System, (y) such product is sold separately and was individually approved by the FDA or an equivalent regulatory body, and (z) the selling price of the Bundled Sale inclusive of such product is higher than the market price of the System included in such Bundled Sale when sold on a stand-alone basis.

"Business Day" means any day other than a Saturday, a Sunday or other day on which banking institutions in Salt Lake City, Utah are not required to be open.

"Business Employees" means all employees of Sellers.

"Business Material Adverse Effect" means any change, event, violation, inaccuracy, circumstance or effect (each, an "Effect" and, collectively, "Effects") that has, or could reasonably be expected to have, a material adverse effect on the financial condition, assets, or results of operations of the Business or value of the Purchased Assets, taken as a whole; provided that none of the following shall be deemed in themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been a Material Adverse Effect: (i) effects arising from or relating to general business or economic conditions; (ii) effects arising from or relating to general national or international political or social conditions, including the engagement by the United States or any other country in hostilities, or the escalation thereof; (iii) effects arising from or relating to any changes in financial, banking, securities, or commodities markets in general; (iv) changes in, or changes in interpretations of, GAAP or other applicable accounting rules, regulations, or pronouncements, and any effects to the extent arising therefrom or related thereto; (v) changes in, or changes in interpretations of, Legal Requirements after the date of this Agreement, and any effects arising therefrom or related thereto; (vi) the announcement or pendency of the transactions contemplated herein, and any effects arising therefrom or related thereto; (vii) any action required to be taken by this Agreement by any Person, and any effects arising therefrom or related thereto; and (viii) effects arising from or relating to any violation or breach by Purchaser of any representation or warranty of Purchaser contained in this Agreement, except to the extent, in the case of the foregoing clauses (i) through (iii), such effects referred to therein have a disproportionate impact on the Business relative to the industry in which the Business competes as a whole.

"Business Products and Services" means any and all products and services designed, developed, marketed, manufactured licensed, offered, provided, sold, distributed or otherwise made available or exploited by or for Sellers, including without limitation, the Systems.

"Code" means the United States Internal Revenue Code of 1986, as amended.

"Consent" means any approval, notice, consent, ratification, permission, waiver or authorization (including any Governmental Authorization).

"Contract" means any binding written, oral, implied or other agreement, contract, understanding, arrangement, instrument, note, guaranty, indemnity, representation, warranty, deed, assignment, power of attorney, certificate, purchase order, work order, license, sublicense, insurance policy, commitment, covenant, assurance or undertaking of any nature.

"Damages" shall include any actual loss, Action, damage, injury, Liability, claim, demand, settlement, judgment, award, fine, penalty, Tax, fee (including any reasonable legal fee, expert fee, accounting fee or advisory

fee), charge, cost (including any reasonable cost of investigation) or expense of any nature, provided that in no event shall "Damages" be deemed to include punitive, special, or exemplary damages (other than any such damages actually paid to a third party in connection with a Third-Party Claim).

"Disclosure Schedule" means the schedule (dated as of the date of the Agreement) delivered to Purchaser on behalf of the Sellers, a copy of which is attached to the Agreement and incorporated in the Agreement by reference.

"Encumbrance" means any lien, pledge, hypothecation, charge, mortgage, security interest, encumbrance, equity, trust, equitable interest, claim, preference, right of possession, lease, tenancy, license, encroachment, covenant, infringement, interference, Order, proxy, option, right of first refusal, preemptive right, community property interest, legend, defect, impediment, exception, reservation, limitation, impairment, imperfection of title, condition or restriction of any nature (including any restriction on the transfer of any asset, any restriction on the receipt of any income derived from any asset, any restriction on the use of any asset and any restriction on the possession, exercise or transfer of any other attribute of ownership of any asset).

"Entity" means any corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust, cooperative, foundation, society, political party, union, company (including any limited liability company or joint stock company), firm or other enterprise, association, Governmental Body, organization or entity.

"Environmental Law" means any applicable Legal Requirement, and any Order or binding agreement with any Governmental Body: (a) relating to pollution (or the cleanup thereof) or the protection of natural resources, endangered or threatened species, human health or safety, or the environment (including ambient air, soil, surface water or groundwater, or subsurface strata); or (b) concerning the presence of, exposure to, or the management, manufacture, use, containment, storage, recycling, reclamation, reuse, treatment, generation, discharge, transportation, processing, production, disposal or remediation of any Hazardous Materials. The term "Environmental Law" includes, without limitation, the following (including their implementing regulations and any state analogs): the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 U.S.C. §§ 9601 et seq.; the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984, 42 U.S.C. §§ 6901 et seq.; the Federal Water Pollution Control Act of 1972, as amended by the Clean Water Act of 1977, 33 U.S.C. §§ 1251 et seq.; the Toxic Substances Control Act of 1976, as amended, 15 U.S.C. §§ 2601 et seq.; the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §§ 11001 et seq.; the Clean Air Act of 1966, as amended by the Clean Air Act Amendments of 1990, 42 U.S.C. §§ 7401 et seq.; and the Occupational Safety and Health Act of 1970, as amended, 29 U.S.C. §§ 651 et seq.

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended, and the regulations promulgated thereunder.

"ERISA Affiliate" means any corporation other trade or business entity or other Person treated as aggregated with the Sellers under Section 414(b), (c), (m), or (o) of the Code or Section 4001(b) of ERISA.

"FDA" means the United States Food and Drug Administration.

"FDCA" means the Federal Food, Drug and Cosmetic Act of 1938, as amended (including the rules and regulations promulgated thereunder.

"Fraud" means that a Seller, on the one hand, or Purchaser, on the other hand, shall have committed actual fraud with scienter, in all cases, solely with respect to the representations and warranties set forth in Section 2 or Section 3, as applicable, of this Agreement and, in the case of a Seller, as qualified by the Disclosure Schedule in accordance with the terms hereof.

"GAAP" means United States generally accepted accounting principles, consistently applied.

"Governmental Authorization" means any: (a) permit, license, certificate, franchise, concession, approval, accreditation, consent, ratification, permission, clearance, confirmation, endorsement, waiver, certification, designation, rating, registration, qualification or authorization issued, granted, given or otherwise made available by or under the authority of any Governmental Body or pursuant to any Legal Requirement; or (b) right under any Contract with any Governmental Body.

"Governmental Body" means any: (a) nation, principality, state, commonwealth, province, territory, county, municipality, district or other jurisdiction of any nature; (b) federal, state, local, municipal, foreign or other government; (c) governmental or quasi-governmental authority of any nature (including any governmental division, subdivision, department, agency, bureau, branch, office, commission, council, board, instrumentality, organization,

unit, body or Entity and any court or other tribunal); (d) multi-national organization or body; or (e) Entity or body exercising, or entitled to exercise, any executive, legislative, judicial, administrative, regulatory, police, military or taxing authority or power of any nature.

"Governmental Order" means any order, judgment, injunction, decree, writ, stipulation, determination or award, in each case, entered by or with any Governmental Body.

"Hazardous Materials" means: (a) any material, substance, chemical, waste, product, derivative, compound, mixture, solid, liquid, mineral or gas, in each case, whether naturally occurring or manmade, that is hazardous, acutely hazardous, toxic, or words of similar import or regulatory effect under Environmental Laws; and (b) any petroleum or petroleum-derived products, radon, radioactive materials or wastes, asbestos in any form, lead or lead-containing materials, urea formaldehyde foam insulation and polychlorinated biphenyls.

"Healthcare Regulatory Authority" means any federal, national, foreign or multinational governmental health regulatory agency or authority with jurisdiction over (i) the development, marketing, labeling, sale, use, handling and control, safety, efficacy, reliability, manufacturing, approval, licensing of any drug, device or over-the-counter pharmaceutical product, (ii) federal healthcare programs under which such products are purchased or (iii) the protection of personal health information.

"Indebtedness" (i) all outstanding obligations for senior debt and subordinated debt and any other outstanding obligation for borrowed money, including that evidenced by notes, bonds, debentures or other instruments (and including all outstanding principal, prepayment premiums, if any, and accrued interest, penalties, fees and expenses related thereto), (ii) any outstanding obligations under leases, letters of credit and purchase money obligations, (iii) any amounts owed with respect to drawn letters of credit and (iv) any outstanding guarantees of obligations of the type described in clauses (i) through (iii) above.

"Intellectual Property" means any and all rights in, arising out of, or associated with any of the following in any jurisdiction throughout the world: (a) issued patents and patent applications (whether provisional or non-provisional), including divisionals, continuations, continuations-in-part, substitutions, reissues, reexaminations, extensions, or restorations of any of the foregoing, and other Governmental Authority-issued indicia of invention ownership (including certificates of invention, petty patents, and patent utility models) ("Patents"); (b) trademarks, service marks, brands, certification marks, logos, trade dress, trade names, and other similar indicia of source or origin, together with the goodwill connected with the use of and symbolized by, and all registrations, applications for registration, and renewals of, any of the foregoing ("Marks"); (c) copyrights and works of authorship, whether or not copyrightable, and all registrations, applications for registration, and renewals of any of the foregoing ("Copyrights"); (d) internet domain names and social media account or user names (including "handles"), whether or not Trademarks, all associated web addresses, URLs, websites and web pages, social media accounts and pages, and all content and data thereon or relating thereto, whether or not Copyrights; (e) mask works, and all registrations, applications for registration, and renewals thereof; (f) trade secrets, know-how, inventions (whether or not patentable), discoveries, improvements, technology, business and technical information, databases, data compilations and collections, tools, methods, processes, techniques, and other confidential and proprietary information and all rights therein ("Trade Secrets"); (g) computer programs, operating systems, applications, firmware and other code, including all source code, object code, application programming interfaces, data files, databases, protocols, specifications, and other documentation thereof ("Software"); and (h) all other intellectual or industrial property and proprietary rights.

"Intellectual Property License" means all licenses, sublicenses, consent to use agreements, settlements, coexistence agreements, covenants not to sue, waivers, releases, permissions and other Contracts, whether written or oral, relating to any Intellectual Property that is used or held for use in the conduct of the Business as currently conducted to which Seller is a party, beneficiary or otherwise bound.

"Inventory" means all of the inventory held or owned by any Seller for resale, and all of the Sellers' raw materials, work in process, finished products and supply items, in each case, wherever the same may be located.

"IT Assets" means the computer systems, servers (owned, leased or controlled), telecommunications equipment, network equipment and other equipment, hardware and software owned, leased or licensed (including software used or accessed through a software as a service relationship) by the Seller.

"Knowledge of the Sellers" or any other similar knowledge qualification, means the actual knowledge of any of James (Chip) Draper, Carl Wisnosky or John Marano, after reasonable inquiry of their direct reports and any other Seller employee who could reasonably be expected to have knowledge of the subject matter, and a reasonable review of documents within their possession or control.

"Legal Requirement" means any applicable federal, state, local, municipal, foreign or other law, statute,

legislation, constitution, principle of common law, resolution, ordinance, code, edict, decree, proclamation, treaty, convention, rule, regulation, ruling, guidance, directive, pronouncement, requirement, specification, determination, decision, opinion or interpretation issued, enacted, adopted, passed, approved, promulgated, made, implemented or otherwise put into effect by or under the authority of any Governmental Body.

"Liability" means any debt, obligation, duty or liability of any nature (including any unknown, undisclosed, unmatured, unaccrued, unasserted, contingent, indirect, conditional, implied, vicarious, derivative, joint, several or secondary liability), regardless of whether such debt, obligation, duty or liability would be required to be disclosed on a balance sheet prepared in accordance with GAAP and regardless of whether such debt, obligation, duty or liability is immediately due and payable.

"Medical Device" means each product subject to the FDCA or similar Legal Requirement in any foreign jurisdiction that is developed, manufactured, tested, distributed and/or marketed by the Business.

"Off The Shelf Software" means software that is licensed under "shrink-wrap" or "click-through" Contracts and is generally commercially available on reasonable terms through commercial distributors or in retail stores and does not required aggregate or annual payments of more than $20,000 in the aggregate.

"Open Source Software" means any software that contains, or is derived in any manner (in whole or in part) from, any software that is distributed as free software, open source software (e.g., GNU General Public License, Apache Software License, MIT License or other license identified as an open source license by the Open Source Initiative (www.opensource.org) or the Free Software Definition (as promulgated by the Free Software Foundation)).

"Order" means any: (a) order, judgment, injunction, edict, decree, ruling, pronouncement, determination, decision, opinion, verdict, sentence, subpoena, writ or award issued, made, entered, rendered or otherwise put into effect by or under the authority of any court, administrative agency or other Governmental Body or any arbitrator or arbitration panel; or (b) Contract with any Governmental Body entered into in connection with any Proceeding.

"Ordinary Course of Business" means an action taken by or on behalf of the Sellers in the normal and ordinary course of operating the Business; provided, that an action shall not be deemed to have been taken in the "Ordinary Course of Business" unless such action is consistent with the past practices of the Sellers and is taken in the ordinary course of the normal day-to-day operations of the Sellers.

"Organizational Documents" means the articles of incorporation, certificate of incorporation, charter, by-laws, articles of formation, certificate of formation, regulations, operating agreement, certificate of limited partnership, limited liability company agreement or partnership agreement and all other similar documents, instruments or certificates executed, adopted or filed in connection with the creation, formation or organization of a Person, including any amendments thereto.

"Permitted Encumbrance" means (i) any restriction on transfer arising under applicable securities law, (ii) statutory liens for current Taxes or other governmental charges not yet due and payable; (iii) mechanics', carriers', workers', repairers', landlords' and similar statutory Encumbrances arising or incurred in the Ordinary Course of Business for amounts which are not delinquent, or the amount or validity of which is being contested in good faith by appropriate proceedings by or on behalf of the Sellers and their Subsidiaries; (iv) zoning, entitlement, building and other land use regulations imposed by Governmental Bodies having jurisdiction over the Leased Real Property which are not violated by the current use and operation of the Leased Real Property; (v) covenants, conditions, reservations, restrictions, rights-of-way, easements and other similar matters of record or minor title or survey exceptions and other similar restrictions affecting title to the fee interest of the Leased Real Property which do not materially impair the occupancy or use of the Leased Real Property for the purposes for which it is currently operated or used; (vi) Encumbrances on the fee interest of the Leased Real Property which do not materially impair or interfere with the occupancy, operation or use of the Leased Real Property for the purposes for which it is currently operated or used by the Sellers or a Subsidiary of the Sellers, (vii) Encumbrances affecting the lessor or licensor under any real property lease agreement, (viii) Encumbrances arising under worker's compensation, unemployment insurance, social security, retirement and similar Legal Requirements; (ix) purchase money Encumbrances and Encumbrances securing rental payments under capital lease arrangements; (x) Encumbrances securing Indebtedness that is repaid or cancelled at Closing (and which Encumbrances are released at Closing); and (xi) non-exclusive licenses of Intellectual Property.

"Person" means any individual, Entity or Governmental Body.

"Personal Information" means the personally identifiable information regulated by Privacy Laws and collected, used, disclosed or retained by Sellers such as an individual's name, address, age, gender, identification number, family status, citizenship, employment, assets, liabilities, source of funds, payment records, credit information,

personal references and health records.

"Plan" shall mean each: (a) employment, consulting, severance, termination, pension, retirement, supplemental retirement, excess benefit, profit sharing, bonus, incentive, deferred compensation, retention, transaction and change in control plan, program, arrangement, agreement, policy or commitment, (b) stock option, restricted stock, profits units, membership unit, deferred stock, performance stock, stock appreciation, stock unit or other equity or equity-based plan, program, arrangement, agreement, policy or commitment, and (c) savings, life, health, disability, accident, medical, dental, vision, death benefit, cafeteria, insurance, flex spending, adoption/dependent/employee assistance, tuition, vacation, paid-time-off, perquisite, outplacement, welfare benefit, fringe benefit and other similar compensation or benefit plan, program, arrangement, agreement, policy (whether formal or informal) or commitment, including in each case each "employee benefit plan" as defined in Section 3(3) of ERISA (whether or not subject to ERISA), in any case, which either is sponsored, maintained or contributed to by the Sellers on behalf of, or under which the Sellers have any obligation or liability, whether actual or contingent, to provide compensation or benefits to or for the benefit of, any current or former Business Employee, or the spouses, beneficiaries or other dependents thereof.

"Post-Closing Tax Period" means any Tax Period beginning after the Closing Date and that portion of a Straddle Period beginning after the Closing Date.

"Pre-Closing Tax Period" means any Tax Period ending on or before the Closing Date and the portion of any Straddle Period ending on the Closing Date.

"Pre-Closing Taxes" means any Liability of the Sellers or their Affiliates for any Tax and any Liability for Taxes imposed on the Purchased Assets or with respect to the Business for any period or portion thereof prior to the Closing Date, including without limitation any Liability of the Sellers for the Taxes of any other Person under Treasury Regulation Section 1.1502-6 (or any similar provision of state, local or foreign law), as a transferee or successor, by Contract or otherwise.

"Pre-Closing Environmental Matters" means, as of or prior to the Closing Date, (i) the presence or Release of Hazardous Materials in, on or under the Leased Real Property or any other property owned, leased or used by Sellers in connection with the Business and the Purchased Assets regardless of how the Hazardous Materials came to rest at, on or under any such property, (ii) any disposal of Hazardous Materials to any third-party offsite locations in connection with the Business (including without limitation from the Leased Real Property or any other property owned, leased or used by Sellers in connection with the Business and the Purchased Assets), (iii) the failure of the Sellers, the Business or any properties or operations used in connection with the Business to be in compliance with any Environmental Laws, and (iv) any other act, omission or condition existing with respect to the Business or the Purchased Assets which gives rise to Liability under any Environmental Laws.

"Privacy Laws" means all applicable Laws of any nation or other jurisdiction in which Sellers operates governing the collection, use, disclosure and retention of Personal Information, including without limitation the Standards for the Protection of Personal Information of Residents of the Commonwealth, 201 CMR 17.00, et seg.

"Proceeding" means any Action, suit, litigation, arbitration, proceeding (including any civil, criminal, administrative, investigative or appellate proceeding and any informal proceeding), prosecution, contest, hearing, inquiry, inquest, audit, examination or investigation commenced, brought, conducted or heard by or before, or otherwise involving, any Governmental Body or any arbitrator or arbitration panel.

"Property Taxes" means all real property Taxes, personal property Taxes and similar ad valorem Taxes.

"Purchaser Indemnitees" means the following Persons: (a) Purchaser; (b) Purchaser's current and future Affiliates; (c) the respective Representatives of the Persons referred to in clauses "(a)" and "(b)" above; and (d) the respective successors and assigns of the Persons referred to in clauses "(a)", "(b)" and "(c)" above.

"Purchaser Material Adverse Effect" means an event, condition, change, development or other matter will be deemed to have a "Purchaser Material Adverse Effect" on Purchaser if such event, condition, change, development or other matter, either individually or in combination with any other event, condition, change, development or other matter had or could reasonably be expected to have a material adverse effect on (a) the business, condition (financial or otherwise), capitalization, assets, liabilities, operations, financial performance or prospects of the Purchaser's business, taken as a whole, or (b) the ability of Purchaser to consummate the Transactions; provided, however, that none of the following shall be deemed in themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been a Purchaser Material Adverse Effect: (i) any adverse change, effect or event attributable to conditions affecting the industry in which Purchaser participates, the U.S. economy or any other economy where Purchaser operates or the capital markets in general or

the markets in which they operate, except to the extent that any of the foregoing has had a disproportionate effect on Purchaser as compared to other participants in the industry in which they operate; or (ii) the effect of any change arising in connection with any "act of God" including weather, natural disasters (other than earthquakes), hostilities, acts of war, sabotage or terrorism or military actions or any escalation or material worsening of any such hostilities, acts of war, sabotage or terrorism or military actions.

"Registered Intellectual Property" means any issued Patent, pending Patent application, Mark registration, application for Mark registration, Copyright registration, application for Copyright registration and Domain Name registration owned, filed or applied for by the Sellers.

"Registrations" means those authorizations and/or approvals issued by any Governmental Body (including premarket approval applications, premarket notifications, investigational device exemptions, manufacturing approvals or authorizations, CE Marks, pricing and reimbursement approvals, labeling approvals or their foreign equivalent) that are held by Sellers as of the Closing, for the manufacture, distribution, marketing, storage, transportation, use and sale of the products being sold by the Business as of the Closing.

"Related Party" means each of the following: (a) each individual or Entity who is, or who has at any time been, an equity holder, director, manger or officer of the Sellers; (b) each member of the family of each of the individuals referred to in Clause "(a)" above; and (c) any Entity (other than the Sellers) in which any one of the individuals or Entities referred to in clauses "(a)" and "(b)" above holds or held (or in which more than one of such individuals collectively hold or held), beneficially or otherwise, a controlling interest or a material voting, proprietary or equity interest.

"Release" means any release, spill, emission, leaking, pumping, injection, deposit, disposal, discharge, dispersal, leaching, or migration at, into, or through the environment, whether sudden or non-sudden and whether accidental or non-accidental.

"Representatives" means equity holders, managers, officers, directors, employees, agents, attorneys, accountants, advisors and representatives.

"Securities Act" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

"Seller Contract" means any Contract: (a) to which a Seller is a party; (b) by which a Seller or any of its assets is or may become bound or under which a Seller has, or may become subject to, any obligation; or (c) under which a Seller has or may acquire any right or interest.

"Seller Indemnitees" means the following Persons: (a) VI; (b) VI's current and future Affiliates; (c) the respective Representatives of the Persons referred to in clauses "(a)" and "(b)" above; and (d) the respective successors and assigns of the Persons referred to in clauses "(a)", "(b)" and "(c)" above, in each case in their capacity as such.

"Seller Intellectual Property" means all Intellectual Property that is owned, used, or licensed by the Sellers.

"Seller Technology" means all Technology used in connection with, relating to or necessary for the conduct of the Business, including in connection with any Business Products and Services.

"Straddle Period" means any Tax Period beginning before or on and ending after the Closing Date.

"Subsidiary" or "Subsidiaries" (whether or not capitalized) of any Person means any corporation, partnership, limited liability company, joint venture or other legal entity of which such Person (either above or through or together with any other subsidiary), owns, directly or indirectly, more than fifty percent (50%) of the shares or other equity interests the holders of which are generally entitled to vote for the election of the board of directors or other governing body of such corporation or other legal entity.

"Systems" means, collectively, the ClariVein®IC system and the ClariVein®OC system, which are specialty infusion and occlusion catheter systems with rotating wire tips designed for the controlled 360-degree dispersion of physician-specified agents to the targeted treatment area, as developed by the Sellers prior to the Closing and, for purposes of Section 1.4, as may be improved or modified by Purchaser or its Affiliates after the Closing

"Tax" or "Taxes" means any federal, state, local or foreign income, gross receipts, branch profits, license, payroll, employment, excise, severance, stamp, occupation, premium, windfall profits, environmental, customs duties, capital stock, franchise, profits, withholding, social security, unemployment, disability, real property, personal property, sales, use, transfer, registration, ad valorem, value added, alternative or add-on minimum, estimated, or other tax of any kind whatsoever, including any interest, penalty, or addition thereto, whether disputed or not and including any obligation to indemnify or otherwise assume or succeed to the Tax liability of any other Person by Legal Requirement, by Contract or otherwise but excluding for this purpose Contracts entered into in the ordinary course of

business not pertaining primarily to Taxes.

"Tax Period" means any period prescribed by any Governmental Body for which a Tax Return is required to be filed or a Tax is required to be paid.

"Tax Returns" means any return, declaration, report, claim for refund, transfer pricing report or information return or statement relating to Taxes, including any schedule or attachment thereto, and including any amendment thereof, filed or required to be filed with a Governmental Body.

"Technology" means all software, computer programs, databases, compilations, content, websites, information, designs, formulae, compositions, algorithms, procedures, methods, techniques, ideas, know-how, research and development, technical data, subroutines, tools, materials, specifications, processes, inventions (whether patentable or not and whether reduced to practice or not), invention disclosures, improvements, apparatus, creations, works of authorship, content and other similar materials, and all recordings, graphs, drawings, reports, analyses, documentation, user manuals and other writings, in any form whether or not specifically listed herein.

"Transaction Documents" means: (a) this Agreement; (b) the Escrow Agreement; (c) the Assumption Agreement; (d) the Bill of Sale; (e) the certificate of non-foreign status under Treasury Regulations section 1.1445-2(b); (f) the Secretary's Certificate; (g) the Trademarks Assignment; (h) the Patents Assignment; (i) the IP Assignment and (j) the Yale Assumption Agreement.

"Transactions" means (a) the execution and delivery of the respective Transaction Documents, and (b) all of the transactions contemplated by the respective Transaction Documents, including, among other things: (i) the sale by the Sellers and the purchase by Purchaser of the Purchased Assets in accordance with this Agreement, (ii) the assumption of the Assumed Liabilities by Purchaser pursuant to the Assumption Agreement; and (iii) the performance by the Sellers and Purchaser of their respective obligations under the Transaction Documents, and the exercise by the Sellers and Purchaser of their respective rights under the Transaction Documents.

"Unpaid Seller Transaction Expenses" means (i) any and all fees and disbursements payable to legal counsel, accountants and other advisors of the Sellers that are payable by or on behalf of the Sellers in connection with the Transactions, (ii) any retention bonuses, change in control payments, severance or termination payments and any similar payments to be paid or payable by or on behalf of the Sellers in connection with the Transactions contemplated by the Transaction Documents and any employer-side payroll taxes incurred in connection therewith, (iii) any fees payable to a broker, underwriter or finder engaged by or on behalf of Sellers, including, but not limited to, Oppenheimer & Co., and (iv) all other miscellaneous expenses or costs, in each case, incurred by the Sellers or any of their Related Parties that are payable by the Sellers, in connection with the Transactions but only to the extent they have not been paid by the Sellers in cash on or prior to the close of business on the day immediately preceding the Closing.

"WARN Act" means the Worker Adjustment and Retraining Notification Act of 1988, as amended, or any similar state or local plant closing or mass layoff law.

"Warranty Obligations" means all obligations under the product warranties described in Section 2.21 of the Disclosure Schedule, specifically Sellers' standard product warranties in respect of sales of the Systems described in paragraph 1 of Section 2.21 of the Disclosure Schedule, the product warranties in the Distributor Agreements, the "Customer First" program as referenced in paragraph 3 of Section 2.21 of the Disclosure Schedule, including warranty service on products in the field, but excluding any provisions (including warranties) in pricing agreements referenced in paragraphs 4 through 10 of Section 2.21 of the Disclosure Schedule, relating to products of the Business sold on or prior to the Closing.

"Worldwide Net Sales" means the gross amounts invoiced for sales of the Systems to third parties by Purchaser, its Affiliates and its or their respective transferees or licensees of substantially all rights pertaining to the Systems (collectively, the "Sales Parties"), less any of the following deductions related to the Systems and actually taken on such sales for: (a) normal and customary trade and quantity discounts actually given; (b) credits, rebates and chargebacks and allowances to the customer on account of purchase of such Systems, or on account of retroactive price reductions affecting such Systems; (c) amounts paid, granted or accrued on rejection or returns of such Systems; (d) packing, freight, shipping, postage, custom duties and insurance costs on shipments to the customer that are separately itemized; and (e) sales, value-added, and excise taxes, tariffs, duties and any other taxes and governmental charges related to the sale of such Systems to the customer, in each case, to the extent such deductions: (i) are applicable and in accordance with standard allocation procedures, (ii) have not already been deducted or excluded, and (iii) are incurred in the ordinary course of business in type and amount consistent with good industry practice. Worldwide Net Sales shall be determined from the books and records in accordance with GAAP, applied on a consistent basis by Purchaser, and may include using accrual accounting where applicable. Notwithstanding the foregoing, Worldwide

Net Sales shall not include non-commercial sales, such as transactions among the Sales Parties that are not intended for re-sale, or sales for pre-clinical or clinical trials or other testing. In the case of any transfer of any System among the Sales Parties for resale, Worldwide Net Sales shall be determined based on the subsequent sale of such System by the Sales Party to a third party. If a System is sold in a bundle with one or more Bundle Product Components ("Bundled Sales"), Worldwide Net Sales on the Bundled Sales shall be calculated by multiplying the Worldwide Net Sales of that Bundled Sale by the fraction A/(A+B), where A is the average sale price of the System included in the Bundled Sale when sold separately and B is the average sale price of all Bundle Product Components included in the Bundled Sale when sold separately. If neither the System nor all of the Bundle Product Components in the Bundled Sale were sold separately during one or more of the immediately preceding twelve (12) months, then the proration fraction shall be determined in a consistent and equitable manner that reflects the relative contribution of the System to the amount received on such Bundled Sale as the parties shall in good faith negotiate and agree.

Agreement	*Recitals*	Independent Accounting Firm	*Section 1.3(b)(iii)*
Allocation	*Section 1.7*	Interim Financial Statements	*Section 2.3*
Assumed Liabilities	*Section 1.1(c)*	Leased Real Property	*Section 2.16(h)*
Assumption Agreement	*Section 1.5(b)(iii)*	Management	*Preamble*
Audited Financial Statements	*Section 2.3*	Material Contract	*Section 2.11(a)*
Base Cash Amount	*Section 1.2*	Material Customers	*Section 2.9(a)*
Bill of Sale	*Section 1.5(b)(iii)*	Material Suppliers	*Section 2.9(b)*
Business	*Recitals*	New Plans	*Section 5.7(b)*
Business Government Authorization	*Section 2.13*	OFAC	*Section 2.12(c)(i)*
Cash Consideration	*Section 1.2*	Post-Closing Adjustment	*Section 1.3(a)(ii)*
Closing	*Section 1.5(a)*	Purchased Contracts	*Section 1.1(a)(vi)*
Closing Date	*Section 1.5(a)*	Purchaser	*Preamble*
Closing Date Cash Purchase Price	*Section 1.2*	Resolution Period	*Section 1.3(b)(ii)*
Closing Working Capital Statement	*Section 1.3(a)*	Review Period	*Section 1.3(b)(i)*
Contingent Asset	*Section 1.6*	Sales Contingent Payment Certificate	*Section 1.4(d)(i)*
Contingent Initial Resolution Period	*Section 1.4(d)(ii)*	Second Sales Contingent Payment	*Section 1.4(c)*
Contingent Objection Notice	*Section 1.4(d)(ii)*	Second Sales Contingent Payment Amount	*Section 1.4(c)*
Contingent Objection Period	*Section 1.4(d)(ii)*	Secretary’s Certificate	*Section 1.5(b)(iv)*
Contingent Payment Amounts	*Section 1.4(c)*	Seller Transferred Intellectual Property	*Section 1.1(a)(iii)*
Contingent Payment Audit	*Section 1.4(d)(ii)*	Sellers	*Preamble*
Contingent Payment Period	*Section 1.4(b)*	Social Security Act	*Section 2.14(b)*
Contingent Payments	*Section 1.4(a)*	Special Representations	*Section 4.1*
Disputed Amounts	*Section 1.3(b)(iii)*	Statement of Objections	*Section 1.3(b)(ii)*
Escrow Account	*Section 1.2*	Survival Period	*Section 4.1*
Escrow Agent	*Section 1.2*	Takeover Statutes	*Section 2.25*
Escrow Agreement	*Section 1.2*	Target Working Capital	*Section 1.3(a)(ii)*
Escrow Amount	*Section 1.2*	Term	*Section 5.4(a)*
Excluded Assets	*Section 1.1(b)*	Territory	*Section 5.4(a)*
Excluded Liabilities	*Section 1.1(d)*	Third-Party Claim	*Section 4.4(a)*
Field	*Section 5.4(a)*	Trade Laws	*Section 2.12(c)(i)*
Financial Statements	*Section 2.3*	Transfer Period	*Section 1.6*
First Sales Contingent Payment	*Section 1.4(b)*	Transfer Taxes	*Section 5.5(c)*
First Sales Contingent Payment Amount	*Section 1.4(b)*	Transferred Data	*Section 1.1(a)(viii)*
Indemnified Party	*Section 4.4(a)*	Transferred Employee	*Section 5.7(a)*
Indemnified Party-Handled Claims	*Section 4.4(d)*	Undisputed Amounts	*Section 1.3(b)(iii)*
Indemnifying Party	*Section 4.4(a)*	VI	*Preamble*

Exhibit 21

SUBSIDIARIES OF MERIT MEDICAL SYSTEMS, INC.
as of December 31, 2018

Subsidiary Name	Jurisdiction of Incorporation/Organization
Merit Medical Australia Pty Ltd.	Australia
IntelliMedical Technologies Pty Ltd.	Australia
ITL Healthcare Pty Ltd.	Australia
Merit Medical Austria GmbH	Austria
Merit Medical Belgium B.V.B.A.	Belgium
Merit Medical Comercialização, Distribuição, Importação e Exportação de Produtos Hospitalares LTDA.	Brazil
Merit Medical Canada Ltd.	Canada
Merit Medical Beijing Co. Ltd.	China
BioSphere Medical Japan, Inc.	Delaware
BioSphere Medical, Inc.	Delaware
BSMD Ventures, Inc.	Delaware
Cianna Medical, Inc.	Delaware
DFINE, Inc.	Delaware
Vascular Access Technologies, Inc.	Delaware
Merit Medical Denmark A/S	Denmark
Merit Medical Finland Ltd.	Finland
BioSphere Medical SA	France
Merit Medical France SAS	France
Dfine Europe GmbH	Germany
Merit Medical GmbH	Germany
Merit Medical Asia Company Limited	Hong Kong
Merit Medical Systems India Private Limited	India
Merit Medical (NRI) Ireland Limited	Ireland
Merit Medical Ireland, Ltd.	Ireland
Merit Medical System’s NRI Limited	Ireland
Merit Medical Italy S.R.L.	Italy
Merit Medical Japan KK	Japan
Argon Medical Devices Japan KK	Japan
Merit Medical Malaysia Sdn. Bhd	Malaysia
Merit Maquiladora México, S. DE R.L. DE C.V.	Mexico
Merit Mexico Sales, S. de R.L. de C.V.	Mexico
Merit Medical Coatings B.V.	Netherlands
Merit Medical Nederland B.V.	Netherlands
Argon Medical Devices Netherlands BV	Netherlands
Merit Medical New Zealand Limited	New Zealand
Merit Medical Norway AS	Norway
Thomas Medical Products, Inc.	Pennsylvania

Merit Medical Portugal, S.A.	Portugal
LLC Merit Technologies	Russia
Merit Medical Singapore Holdings Pte. Ltd	Singapore
Merit Medical Singapore Pte. Ltd.	Singapore
Merit Medical South Africa (Pty) LTD	South Africa
Merit Medical Korea Co., Ltd.	South Korea
Merit Medical Spain S.L.Unipersonal	Spain
Merit Medical Systems AB	Sweden
Merit Medical Switzerland AG	Switzerland
Merit Medical Turkey Tıbbi Ürünler Ticaret Anonim Şirketi	Turkey
Merit Medical ME FZ-LLC	United Arab Emirates
Merit Medical UK Limited	United Kingdom
Merit Holdings, Inc.	Utah
Merit Sensor Systems, Inc.	Utah

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-206297, 333-206296, 333-163104, 333-135614, 333-129267, 333-58112 and 333-58162 on Form S-8 of our reports dated March 1, 2019, relating to the consolidated financial statements and financial statement schedule of Merit Medical Systems, Inc. and subsidiaries, and the effectiveness of Merit Medical Systems, Inc. and subsidiaries' internal control over financial reporting, appearing in this Annual Report on Form 10-K of Merit Medical Systems, Inc. for the year ended December 31, 2018.

/s/ DELOITTE & TOUCHE LLP

Salt Lake City, Utah
March 1, 2019

EXHIBIT 31.1

CERTIFICATION

I, Fred P. Lampropoulos, certify that:

1. I have reviewed this Annual Report on Form 10-K (the "Report") of Merit Medical Systems, Inc. (the "Registrant");

2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;

3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this Report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with general accepted accounting principles;

c) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and

d) disclosed in this Report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ Fred P. Lampropoulos

Fred P. Lampropoulos
President and Chief Executive Officer
(principal executive officer)

EXHIBIT 31.2

CERTIFICATION

I, Raul Parra, certify that:

1. I have reviewed this Annual Report on Form 10-K (the "Report") of Merit Medical Systems, Inc. (the "Registrant");

2. Based on my knowledge, this Report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this Report;

3. Based on my knowledge, the financial statements, and other financial information included in this Report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this Report;

4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal controls over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this Report is being prepared;

b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with general accepted accounting principles;

c) evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this Report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this Report based on such evaluation; and

d) disclosed in this Report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 1, 2019

/s/ Raul Parra

Raul Parra

Chief Financial Officer

(principal financial officer)

EXHIBIT 32.1

Certification of Principal Executive Officer
Pursuant to 18 U.S.C. Section 1350, as Adopted
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 10-K of Merit Medical Systems, Inc. (the "Company") for the year ended December 31, 2018, as filed with the Securities and Exchange Commission (the "Report"), I, Fred P. Lampropoulos, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2019

/s/ Fred P. Lampropoulos
Fred P. Lampropoulos
President and Chief Executive Officer
(principal executive officer)

This certification accompanies the foregoing Report pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. A signed original of this certification has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

EXHIBIT 32.2

Certification of Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350, as Adopted
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report on Form 10-K of Merit Medical Systems, Inc. (the "Company") for the year ended December 31, 2018, as filed with the Securities and Exchange Commission (the "Report"), I, Raul Parra, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2019

/s/ Raul Parra
Raul Parra
Chief Financial Officer
(principal financial officer)

This certification accompanies the foregoing Report pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Registrant for purposes of Section 18 of the Securities Exchange Act of 1934, as amended. A signed original of this certification has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.